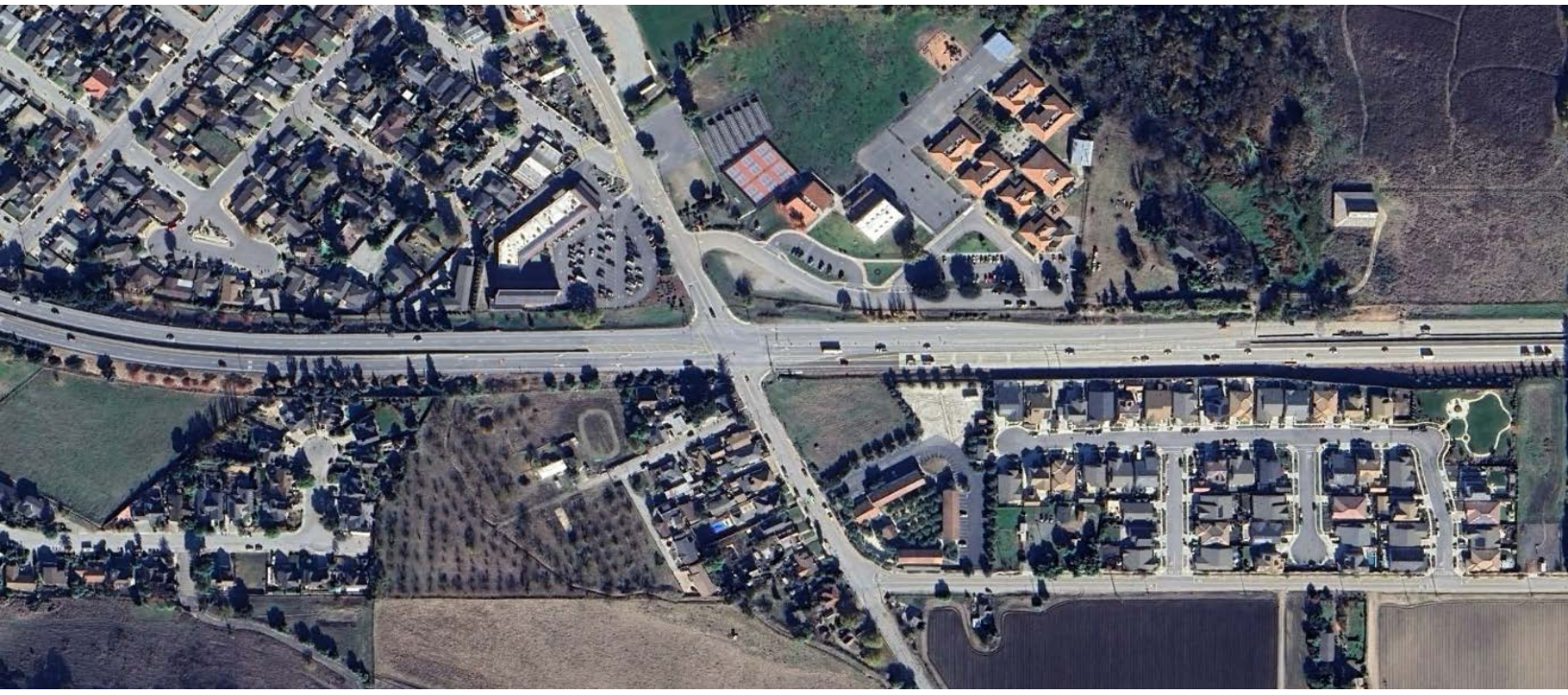
Mitigated Negative Declaration

State Route 156 and The Alameda East-Bound Right-Turn Lane Addition

Supplemental to the Fuel Station, Convenience Store and Quick Serve Restaurant
Initial Study/Mitigated Negative Declaration
(State Clearinghouse No. 2014081015)

March 28, 2025



Prepared by

EMC Planning Group

MITIGATED NEGATIVE DECLARATION

STATE ROUTE 156 AND THE ALAMEDA EAST-BOUND RIGHT-TURN LANE ADDITION

SUPPLEMENTAL TO THE FUEL STATION, CONVENIENCE STORE AND QUICK SERVE RESTAURANT INITIAL STUDY (STATE CLEARINGHOUSE NO. 2014081015)

PREPARED FOR

City of San Juan Bautista
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PREPARED BY

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March 28, 2025

SUPPLEMENTAL MITIGATED NEGATIVE DECLARATION

In Compliance with the California Environmental Quality Act (CEQA)

Project Name	State Route 156 and The Alameda East-Bound Right-Turn Lane Addition
Lead Agency	City of San Juan Bautista
Responsible Agency	Caltrans, District 5
Project Proponent	SJB Alameda Enterprises, LLC
Project Location	State Route 156 at the Alameda, San Juan Bautista
Project Description	The proposed project is a 450-foot long, right turn lane plus 120-foot bay taper within Caltrans' eastbound State Route 156 right-of-way to accommodate vehicle deceleration and right turns onto southbound The Alameda. A Class II bike lane and a four-foot-wide paved shoulder are included. The new improvements will replace an existing 8-foot shoulder with a 6-foot bike lane, 12-foot right turn lane and 4-foot shoulder for a net new widening of 14 feet.
Public Review Period	Begins– April 4, 2025 Ends – May 5, 2024
Written Comments To	Ilse Lopez-Narvaez, Associate Planner City of San Juan Bautista P.O. Box 1420 311 Second Street San Juan Bautista, CA 95045 Or via email to: planning@san-juan-bautista.ca.us
Proposed Findings	The City of San Juan Bautista is the custodian of the documents and other material that constitute the record of proceedings upon which this decision is based. The initial study indicates that the proposed project has the potential to result in significant adverse environmental impacts. However, the mitigation measures identified in the initial study would reduce the impacts to a less than significant level. There is no substantial evidence, in light of the whole record before the City of San Juan Bautista that the project, with mitigation measures incorporated, may have a significant effect on the environment. See the following project-specific mitigation measures:

Mitigation Measures

Biological Resources

BIO-1 California Tiger Salamander. The project proponent shall obtain a Biological Opinion from the USFWS (Caltrans) and a 2081 Incidental Take Permit from the California Department of Fish and Wildlife (CDFW) for potential project impacts to California tiger salamander, and implement all avoidance, minimization, and compensatory mitigation measures required by these permits. Avoidance and minimization measures may include, but not be limited to, the following:

- To the maximum extent practicable, project activities within potential California tiger salamander upland and dispersal habitat will be implemented between May 15 and October 15, which is timed to occur between the breeding season and the fall dispersal period for the California tiger salamander.
- At least 30 days prior to the start of disturbance activities, the project proponent shall submit to USFWS and CDFW the names and qualifications of the qualified biologist and any monitoring biologists proposed to work at the site. Biologist must have experience identifying and handling California tiger salamander in all of its life stages. Preconstruction surveys and monitoring activities may not commence until the qualifications of the biologists are approved by USFWS and CDFW.
- Prior to preconstruction surveys, the qualified biologist shall prepare and submit a "Mortality Reduction and Relocation Plan" to USFWS and CDFW for review and approval. The plan shall include, but not be limited to, survey methods, burrow excavation methods, capture, handling and relocation methods; identification of where the salvaged individuals will be relocated to, and identification of a wildlife rehabilitation center or veterinary facility where injured individuals would be taken if an injured animal was found.
- No more than 30 days prior to the start of disturbance activities, a USFWS- and CDFW-approved qualified biologist shall conduct preconstruction surveys to determine presence/absence of California tiger salamander within the project site. Surveys shall provide 100 percent visual coverage of the area, including burrow openings and a 50-foot buffer zone. If individuals are found, the qualified biologist shall relocate them from the project area in accordance with the USFWS- and CDFW-approved Mortality Reduction and Relocation Plan. Survey results shall be submitted to USFWS and CDFW no more than 14 days prior to the beginning of disturbance activities. Surveys for other special-status species (southwestern pond turtle, western spadefoot) may occur concurrently.
- After conducting the preconstruction clearance surveys, small mammal burrows that could harbor CTS within the portion of the Project area to be disturbed or that cannot be avoided by 50 feet shall be excavated in accordance to a CDFW-approved Rodent Burrow Hand Excavation Plan.
- A rodent burrow hand excavation plan with protocol for hand excavation, potential relocation sites, protocol for determination of rodent burrows with highest likelihood of containing California tiger salamanders, and names of qualified personnel must be submitted to the U.S Fish and Wildlife Service at least 30 days before excavation activities are to begin.

- During vegetation removal and grading activities, a qualified biologist will survey for and relocate any California tiger salamanders identified. The qualified biologist shall relocate individuals in accordance with the USFWS- and CDFW-approved Mortality Reduction and Relocation Plan.

BIO-2 California Tiger Salamander Compensatory Mitigation. A condition of the Section 2081 ITP under CESA (to be acquired) will be to fully mitigate impacts of take of covered species that will result from implementation of the proposed project. Approximately 0.4 acres of potential California tiger salamander upland habitat will be temporarily impacted as a result of this project. Caltrans anticipates that CDFW will require compensatory habitat permanent protection and perpetual management of 0.4 acres for temporary impacts to potential California tiger salamander upland habitat (up to a 1:1 compensatory mitigation ratio for 0.4 acres of temporary impacts), resulting in an anticipated compensatory mitigation lands total of 0.4 acres. It is possible that CDFW will concur with lower mitigation ratios if they determine that the impacted area is less than high quality habitat. Details regarding the selection and implementation of one of these two options and the exact amount of mitigation required will be detailed during the Section 2081 permitting process.

Prior to initiating ground- or vegetation-disturbing project activities, the applicant shall satisfy the requirement to provide an anticipated 0.4 acres of California tiger salamander habitat by complying with one of the following:

1. Purchase credits equivalent of up to 0.4 acres at a CESA-certified and CDFW approved Conservation Bank (in a location to be determined) authorized to sell credits for CTS; or

2. Acquire, permanently preserve, and perpetually manage up to 0.4 acres of Habitat Management Lands.

BIO-3 Prior to ground disturbance, the applicant shall hire a qualified biologist to conduct a training session for all construction personnel. At a minimum, the training shall include a description of special-status species potentially occurring in the project vicinity, including, but not limited to, California tiger salamander, burrowing owl, southwestern pond turtle, western spadefoot, special-status bats, and nesting birds and raptors. Their habitats, general measures that are being implemented to conserve species as they relate to the project, and the boundaries within which construction activities will occur will be explained. Informational handouts with photographs clearly illustrating the species' appearances shall be used in the training session. All new construction personnel shall undergo this mandatory environmental awareness training.

The qualified biologist shall provide documented evidence of completion of this training to the City of San Juan Bautista prior to ground disturbance.

BIO-4 Southwestern Pond Turtle. The project proponent shall implement the following measures for the protection of southwestern pond turtle:

- Within 24 hours prior to vegetation removal or ground-disturbing activities within 200 feet from the outer edge of aquatic vegetation, a qualified biologist retained by the applicant that is familiar with southwestern pond turtles, including their eggs and nests, shall conduct a pre-construction survey of the area in and adjacent to the project site. If any pond turtles are found in or adjacent to the project site, construction activities shall not commence until the turtles have left the area or the qualified biologist relocates the turtles to nearby suitable habitat a minimum of 300 feet from the project site. Pond turtle relocation shall only be conducted with California Department of Fish and Wildlife (CDFW) authorization (and with U.S. Fish and Wildlife Service authorization, if species is listed prior to construction);

- Disturbance to aquatic vegetation shall be avoided to the extent feasible. Placement of all staging areas, access roads, and other construction related facilities shall be located away from the marsh area; and

- Within 200 feet from the outer edge of aquatic vegetation, all construction-related holes shall be covered at the end of each workday to prevent entrapment of western pond turtles.

BIO-5 Western Spadefoot. The project proponent shall implement the following measures for the protection of western spadefoot:

- Within 24 hours prior to vegetation removal or ground-disturbing activities within 50 feet from the outer edge of aquatic vegetation, the project proponent shall retain a qualified biologist familiar with western spadefoot, including their eggs and larvae, to conduct a pre-construction survey of the area in and adjacent to the project site. If any western spadefoot are found in or adjacent to the project site, construction activities shall not commence until the qualified biologist relocates the eggs, larvae, and/or adults to nearby suitable habitat a minimum of 300 feet from the project site. Western spadefoot relocation shall only be conducted with California Department of Fish and Wildlife authorization.

- Disturbance to aquatic vegetation shall be avoided to the extent feasible. Placement of all staging areas, access roads, and other construction related facilities shall be located away from the riparian area.

- Within 200 feet from the outer edge of aquatic vegetation, all construction-related holes shall be covered at the end of each workday to prevent entrapment of western spadefoot.

BIO-6 Burrowing Owl. To avoid loss of or harm to burrowing owl, the following measures shall be implemented:

a. Prior to issuance of a grading permit, and to avoid/minimize impacts to burrowing owls potentially occurring within the project site, the applicant shall retain a biologist qualified in ornithology to conduct surveys for burrowing owl. The qualified biologist shall conduct a two-visit (i.e., morning and evening) presence/absence survey at areas of suitable habitat on and adjacent to the project site boundary no less than 14 days prior to the start of construction or ground disturbance activities. Surveys shall be conducted according to the methods for take avoidance described in the *Burrowing Owl Survey Protocol and Mitigation Guid*elines (CBOC 1993) and the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). If no burrowing owls are found, a letter report confirming absence shall be prepared and submitted to the City of San Juan Bautista and no further measures are required.

b. Because burrowing owls occupy habitat year-round, seasonal no-disturbance buffers, as outlined in the Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and the Staff Report on Burrowing Owl Mitigation (CDFW 2012), shall be in place around occupied habitat prior to and during any ground disturbance activities. The following table includes buffer areas based on the time of year and level of disturbance (CDFW 2012), unless a qualified biologist approved by the California Department of Fish and Wildlife verifies through non-invasive measures that either: 1) birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

Location	**Time of Year**	**Level of Disturbance Buffers (meters)**		
		Low	**Med**	**High**
Nesting Sites	April 1 – Aug 15	200 m	500 m	500 m
Nesting Sites	Aug 16 – Oct 15	200 m	200 m	500 m
Nesting Sites	Oct 16 – Mar 31	50 m	100 m	500

c. If burrowing owl is found and avoidance is not possible, burrow exclusion may be conducted by qualified biologists only during the non-breeding season, before breeding behavior is exhibited and after the burrow is confirmed empty through non-invasive methods, such as surveillance. Occupied burrows shall be replaced with artificial burrows at a ratio of one collapsed burrow to one constructed artificial burrow (1:1). Evicted burrowing owls may attempt to colonize or re-colonize an area that would be impacted, thus ongoing surveillance during project activities shall be conducted at a rate sufficient to detect burrowing owls if they return.

d. If surveys locate occupied burrows in or near construction areas, consultation with the California Department of Fish and Wildlife shall occur to interpret survey results and develop a project-specific avoidance and minimization approach. Once the absence of burrowing owl has been confirmed, a letter report shall be prepared and submitted to City of San Juan Bautista.

BIO-7 Roosting Bats. The following measures shall be implemented to avoid loss of or harm to special-status bat species:

a. Approximately 14 days prior to construction activities, a qualified biologist shall conduct a habitat assessment for bats and potential roosting sites in trees or buildings within 50 feet of the construction easement. These surveys shall include a visual inspection of potential roosting features (bats need not be present) and a search for presence of guano within the project site, construction access routes, and 50 feet around these areas. Cavities, crevices, exfoliating bark, and bark fissures that could provide suitable potential nest or roost habitat for bats shall be surveyed. Assumptions can be made on what species is present due to observed visual characteristics along with habitat use, or the bats can be identified to the species level with the use of a bat echolocation detector such as an "Anabat" unit. Potential roosting features found during the survey shall be flagged or marked.

b. If no roosting sites or bats are found, a letter report will be prepared by the biologist and submitted to the City of San Juan Bautista, where it will be kept on file, and no further measures are required.

c. If bats or roosting sites are found, bats shall not be disturbed without specific notice to and consultation with California Department of Fish and Wildlife.

d. If bats are found roosting outside of the nursery season (May 1 through October 1), California Department of Fish and Wildlife shall be consulted prior to any eviction or other action. If avoidance or postponement is not feasible, a Bat Eviction Plan will be submitted to California Department of Fish and Wildlife for written approval prior to project implementation. A request to evict bats from a roost includes details for excluding bats from the roost site and monitoring to ensure that all bats have exited the roost prior to the start of activity and are unable to re-enter the roost until activity is completed. Any bat eviction shall be timed to avoid lactation and young-rearing. If bats are found roosting during the nursery season, they shall be monitored to determine if the roost site is a maternal roost. This could occur by either visual inspection of the roost bat pups, if possible, or by monitoring the roost after the adults leave for the night to listen for bat pups. Because bat pups cannot leave the roost until they are mature enough, eviction of a maternal roost cannot occur during the nursery season. Therefore, if a maternal roost is present, a 50-foot buffer zone (or different size if determined in consultation with the California Department of Fish and Wildlife) shall be established around the roosting site within which no construction activities including tree removal or structure disturbance shall occur until after the nursery season.

BIO-8 Nesting Birds and Raptors. To avoid impacts to nesting birds during the nesting season (January 15 through September 15), all Phase I construction activities should be conducted between September 16 and January 14, which is outside of the bird nesting season. If construction or project-related work is scheduled during the nesting season (February 15 to August 30 for small bird species such as passerines; January 15 to September 15 for owls; and February 15 to September 15 for other raptors), a qualified biologist shall conduct nesting bird surveys.

a. Two surveys for active bird nests will occur within 14 days prior to start of construction, with the final survey conducted within 48 hours prior to construction. Appropriate minimum survey radii surrounding each work area are typically 250 feet for passerines, 500 feet for smaller raptors, and 1,000 feet for larger raptors. Surveys will be conducted at the appropriate times of day to observe nesting activities. Locations off the site to which access is not available may be surveyed from within the site or from public areas. If no nesting birds are found, a letter report confirming absence will be prepared and submitted to the City of San Juan Bautista and no further mitigation is required.

b. If the qualified biologist documents active nests within the project site or in nearby surrounding areas, an appropriate buffer between each nest and active construction shall be established. The buffer shall be clearly marked and maintained until the young have fledged and are foraging independently. Prior to construction, the qualified biologist shall conduct baseline monitoring of each nest to characterize "normal" bird behavior and establish a buffer distance, which allows the birds to exhibit normal behavior. The qualified biologist shall monitor the nesting birds daily during construction activities and increase the buffer if birds show signs of unusual or distressed behavior (e.g., defensive flights and vocalizations, standing up from a brooding position, and/or flying away from the nest). If buffer establishment is not possible, the qualified biologist or construction foreman shall have the authority to cease all construction work in the area until the young have fledged and the nest is no longer active. Once the absence of nesting birds has been confirmed, a letter report will be prepared and submitted to the City of San Juan Bautista.

BIO-9 Protection of Aquatic Features. The following avoidance and minimization measures will be implemented to minimize impacts to aquatic features on and downstream from the project site:

a. If required, prior to construction, a Mitigation and Monitoring Plan (MMP) shall be prepared to mitigate impacts to vegetation and natural habitats. The MMP shall be consistent with federal and state regulatory requirements and will be amended with any regulatory permit conditions, as required. The applicant shall implement the MMP as necessary during construction and immediately following project completion.

b. Prior to any ground-disturbing activities, ESA fencing shall be installed around aquatic features, and the dripline of trees to be protected within the project limits. Caltrans-defined ESAs shall be noted on design plans and delineated in the field prior to the start of construction activities.

c. Construction activities shall be timed to occur between June 1 and October 31 in any given year, when the surface water is likely to be dry or at a seasonal minimum.

d. During construction, all project-related hazardous materials spills within the project site shall be cleaned up immediately. Readily accessible spill prevention and cleanup materials shall be kept by the contractor on-site at all times during construction.

e. During construction, erosion control measures shall be implemented. Silt fencing, fiber rolls, and barriers shall be installed as needed between the project site and other waters and riparian habitat. At a minimum, erosion controls shall be maintained by the contractor on a daily basis throughout the construction period.

f. During construction, the staging areas shall conform to Best Management Practices (BMPs) applicable to attaining zero discharge of stormwater runoff. At a minimum, all equipment and vehicles shall be checked and maintained by the contractor on a daily basis to ensure proper operation and avoid potential leaks or spills.

Cultural Resources

CUL-1 The contractor shall include a work specification in construction documents for the project that use of vibratory rollers within 25-50 feet of the Benjamin Wilcox House be prohibited.

Noise

N-1 The contractor shall include a work specification in construction documents for the project that use of vibratory rollers within 25 feet of the existing structures located along the western edge of the project site along State Route 156 be prohibited.

INITIAL STUDY

STATE ROUTE 156 AND THE ALAMEDA EAST-BOUND RIGHT-TURN LANE ADDITION

SUPPLEMENTAL TO THE FUEL STATION, CONVENIENCE STORE AND QUICK SERVE RESTAURANT INITIAL STUDY (STATE CLEARINGHOUSE NO. 2014081015)

PREPARED FOR

City of San Juan Bautista
Ashley Collick, City Manager
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PREPARED BY

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March 28, 2025

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A. BACKGROUND

Project Title	State Route 156 and The Alameda East-Bound Right-Turn Lane Addition
Lead Agency Contact Person and Phone Number	Ilse Lopez-Narvaez, Associate Planner (831) 623-4661
Date Prepared	March 28, 2025
Study Prepared by	EMC Planning Group Inc. 601 Abrego Street Monterey, CA 93940
Project Location	State Route 156/The Alameda Intersection, San Juan Bautista, CA
Project Sponsor Name and Address	Dr. Devan Dalla, SJB Alameda Enterprises LLC 1889 E. Bella Rosa Ave., Fresno, CA 93730
General Plan Designation	None – Project within Caltrans Right-of-Way
Zoning	None – Project within Caltrans Right-of-Way

Setting

In 2016, the City of San Juan Bautista ("city") approved development of a gas station and ancillary uses on a site (Assessor's Parcel Number 002-520-012) located at the southeast corner of the State Route 156/The Alameda intersection in San Juan Bautista, San Benito County. The gas station has not yet been developed. A mitigation measure in the *404-408 The Alameda Fuel Station, Convenience Store and Quick Serve Restaurant Initial Study and Mitigated Negative Declaration* (Hatch Mott McDonald 2016) (IS/MND) prepared for that project required that a right-turn lane from eastbound State Route 156 onto southbound The Alameda (hereinafter referred to as "proposed project") be constructed to ensure adequate traffic operations at the State Route 156/The Alameda intersection. The IS/MND was adopted by the city in 2016. The requirement was also attached as a condition of project approval. The 2016 approval subsequently expired. The applicant for the original project then submitted a new application for a similar project, which was approved in 2024. A mitigation measure requiring the same right-turn lane improvement was included in the 2024 approval.

State Route 156 is a divided, limited access highway that runs from east to west with two travel lanes in each direction. The Alameda is a local, two-lane roadway that runs from north to south in the project area. All improvements are planned with a Caltrans right-of-way. Therefore, an encroachment permit from Caltrans is needed to construct the improvement. This initial study has been prepared to meet Caltrans' requirement that environmental review of the proposed project be conducted pursuant to California Environmental Quality Act (CEQA) requirements prior to issuing an encroachment permit.

Figure 1, Location Map, shows the regional and vicinity location of the proposed project. Figure 2, Aerial Photograph, shows the boundaries within which the construction activities would occur, as well as existing land uses and the approved gas station site. The total area to be impacted is about 15,000 square feet, with the potential work area limits encompassing about 23,650 square feet. Several single-family homes/structures are located within about 100 feet of the south edge of the project site, and residential uses are also located to the southwest. State Route 156 borders the northern side of the site, with commercial uses located across the highway to the north. The Alameda forms the eastern edge of the site, with the gas station site bordering the eastern side of The Alameda. The southern edge of the site is bordered by undeveloped land within Caltrans' right-of-way. San Juan School is located to the northeast across the State Route 156/The Alameda intersection.

Figure 3, Site Photographs, depicts existing conditions along the State Route 156 frontage where improvements are planned. Non-native grassland and a small patch of disturbed willow riparian habitat are the dominant plant communities present within the planned area of disturbance, along with ornamental plant species located in the eastern portion of the site. A roadside swale and drainage ditch are also located within the project boundary. The roadside swale was installed by Caltrans as an ephemeral drainage feature to convey a limited volume of storm water runoff from under the highway, and sheet flows west into the on-site drainage ditch. The ditch flows from south to north from a concrete channel "V-ditch" south of the site, through the western portion of the site and into a concrete double-box intake culvert. It then flows under State Route 156 and continues north in a channelized structure as a tributary connected to San Juan Creek, which discharges into the San Benito River.

Description of Project

The proposed project is a 450-foot long, right turn lane plus 120-foot bay taper within Caltrans' eastbound State Route 156 right-of-way to accommodate vehicle deceleration and right turns onto southbound The Alameda. A Class II bike lane and a four-foot-wide paved shoulder are included. The new improvements will replace an existing 8-foot shoulder with a 6-foot bike lane, 12-foot right turn lane and 4-foot shoulder for a net new widening of 14 feet. The new improvements would extend over a tributary to San Juan Creek. Figure 4, Improvement/ Delineation Plan, shows the improvement plan with the approximate boundary of the area of impact. Additional improvements would include pavement stripping, signage, and signal improvements. The project construction plan and landscaping plan can be found in Appendix A.

Construction is expected to last approximately 60 working days from the date it is initiated., Construction activities would occur in four basic phases: grading and excavation, installing road base and subbase; paving; and constructing storm drainage improvements installing landscaping, and installing signals/signage.

Public Agencies Whose Approval is Required

- City of San Juan Bautista
- Caltrans (Encroachment Permit)
- U.S. Fish and Wildlife Service

- Central Coast Regional Water Quality Control Board
- California Department of Fish and Wildlife

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 November 7, 2024, the city sent out an AB 52 notification to the Amah Mutsun Tribal Band of San Juan Bautista offering tribal consultation. As of December 20, 2024, the city had not received a request for consultation from the tribe. The city subsequently reinitiated the tribal consultation process by sending out notifications to six tribes on February 14, 2025. As of March 16, 2025, the close of the offer for consultation period, none of the six tribes had requested consultation with the city. See Section 18, Tribal Cultural Resources, for additional information.

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 21082.3(c) contains provisions specific to confidentiality.

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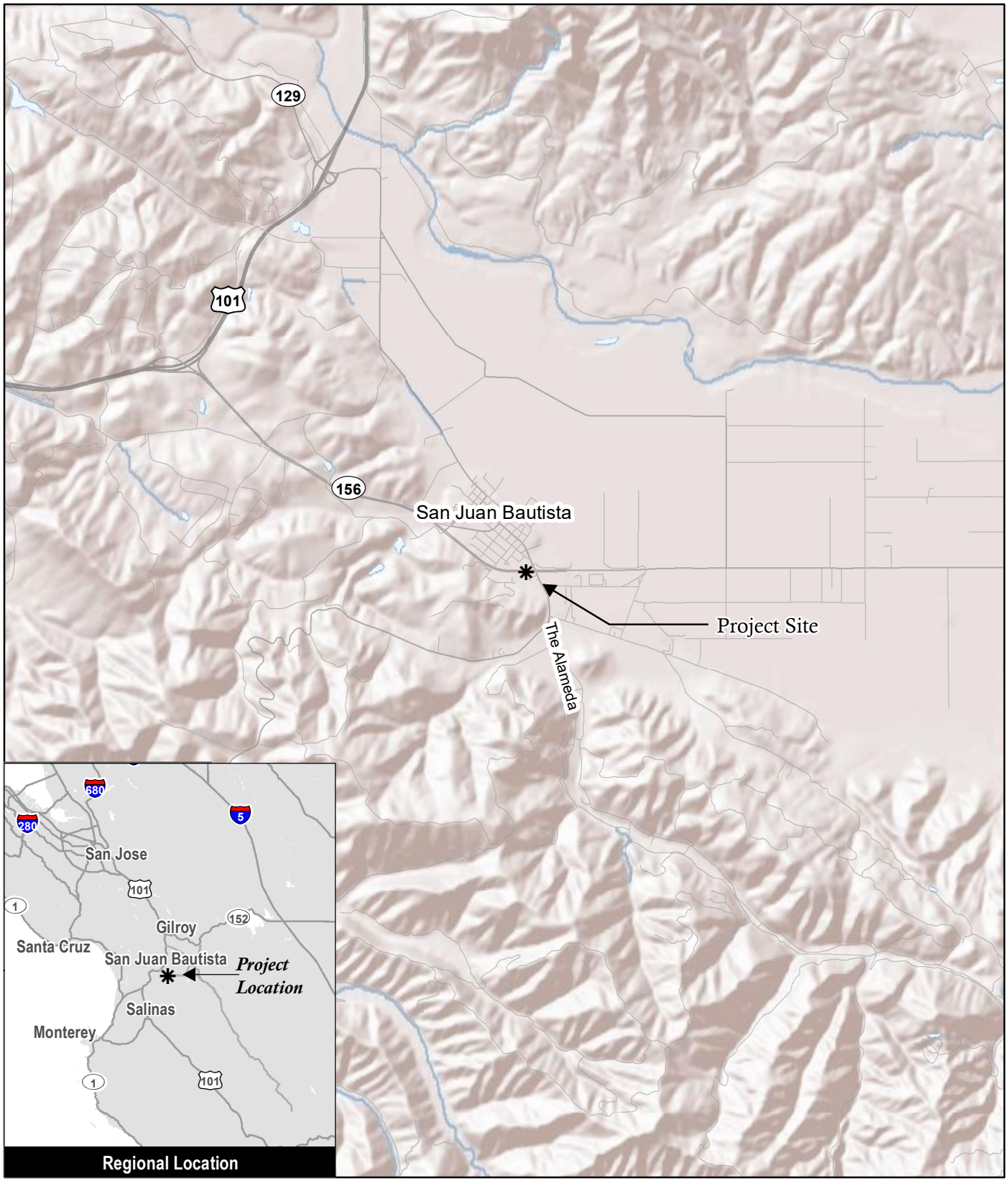

0 1 mile

Source: ESRI 2024

Figure 1

Location Map

State Route 156 & The Alameda East-Bound Right-Turn Lane

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Source: ESRI 2019, MH Engineering Co. 2023

Figure 2

Aerial Photograph

State Route 156 & The Alameda East-Bound Right-Turn Lane

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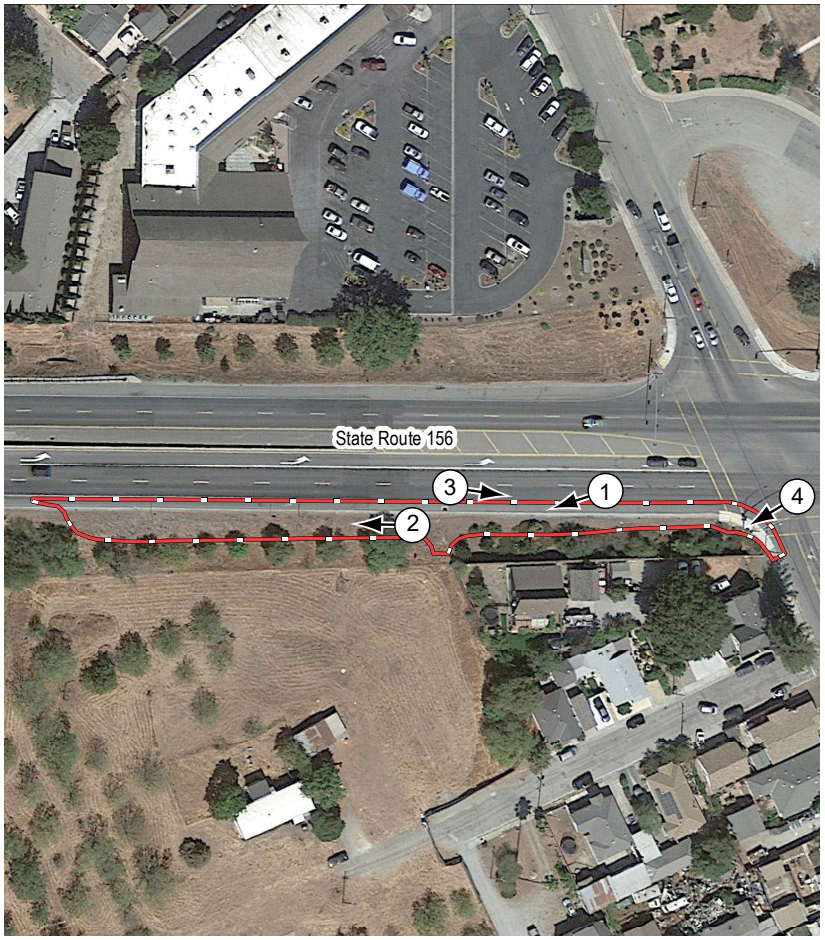
(1) Representative site conditions.

(2) Representative site conditions.



Project Boundary

Source: Google Earth 2023
Photographs: EMC Planning Group 2019

(3) Structures adjacent to site along State Route 156.

(4) Benjamin Wilcox House at left with balance of site along State Route 156.

Figure 3
Site Photographs

State Route 156/The Alameda Right Turn Lane

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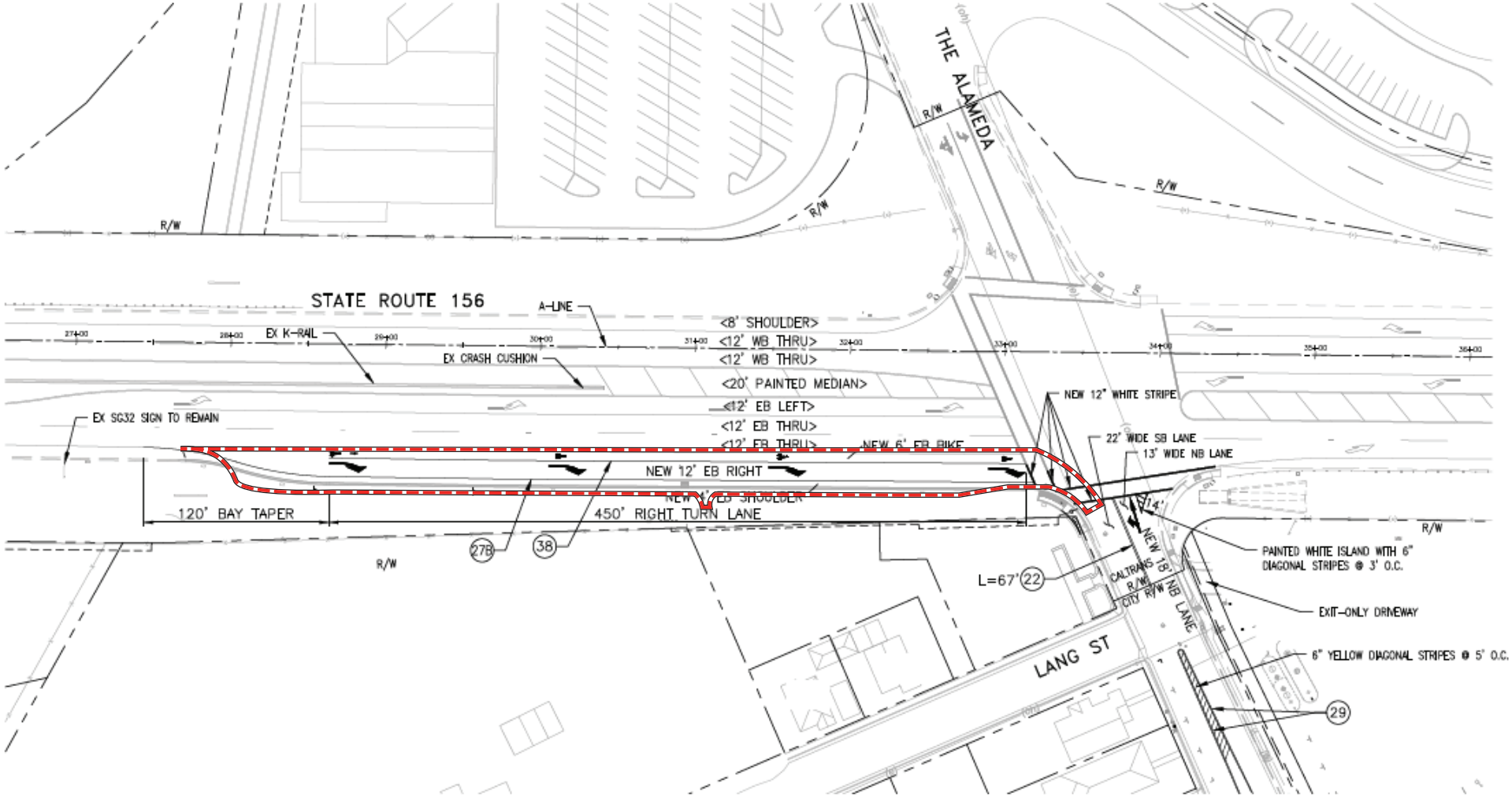

0 100 feet

Approximate Project Boundary

Source: TL Engineering 2024

Figure 4

Improvement/Delineation Plan

State Route 156 & The Alameda East-Bound Right-Turn Lane

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B. Environmental Factors Potentially Affected

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

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

C. 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.

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

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

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (1) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (2) 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.

_____ _____

Don Reynolds, City Manager Date

D. Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a) Earlier Analyses Used. Identify and state where they are available for review.
    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
    a) the significance criteria or threshold, if any, used to evaluate each question; and
    b) the mitigation measure identified, if any, to reduce the impact to less than significance

1. AESTHETICS

Except as provided in Public Resources Code Section 21099 (Modernization of Transportation Analysis for Transit-Oriented Infill Projects), would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b.	Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c.	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 points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d.	Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Comments:

a. The proposed project does not include vertical improvements that would affect views from State Route 156 to more distant landscape features. The project site abuts existing residential development and State Route 156. Views to the site do not constitute views towards a scenic vista.

b. The segment of State Route 156 along the project site is not within a state designated scenic highway.

c. The project site is within suburban/rural agricultural area and located adjacent to a existing State Route 156 and suburban commercial and residential uses in San Juan Bautista. A circulation improvement such as the proposed project would not conflict with existing city zoning regulations that pertain to scenic quality, as the project does not include vertical improvements or other improvements that are typically the subject of zoning regulations designed to address visual quality.

d. The proposed project includes new sources of lighting including street lighting and traffic signals (the latter of which would replace existing signals). These improvements do not constitute a substantial new source of glare that might otherwise adversely affect nighttime views.

2. AGRICULTURE AND FOREST RESOURCES

In determining whether impacts on agricultural resources are significant environmental effects and in assessing impacts on agriculture and farmland, 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. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?	☐	☐	☐	☒
b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c.	Conflict with existing zoning for, or cause rezoning of, 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))?	☐	☐	☐	☒
d.	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Comments:

a-e. The project site does not contain Farmland or forestland, nor is it adjacent to land designated as Farmland or forestland.

3. AIR QUALITY

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:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d.	Result in other emissions, such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☐	☒

Comments:

a. The Monterey Bay Air Resources District ("air district") has the primary responsibility for assuring that federal and state ambient air quality standards are attained and maintained in the air basin. An air quality plan describes air pollution control strategies to be implemented by a city, county, or region classified as a non-attainment area. The main purpose of an air quality plan is to bring the area into compliance with the requirements of federal and state ambient air quality standards. CEQA requires proposed projects to be evaluated for consistency with applicable air quality plans.

The air district's *2017 Air Quality Management Plan* ("air quality management plan") was designed to bring the air district into attainment for this pollutant. As of 2020, the air district is no longer in non-attainment for ozone emissions. Consequently, the air district is no longer required to prepare an air quality management plan specifically for this purpose. The air district is currently working to address this change in future updates to its *2008 CEQA Air Quality Guidelines* ("2008 CEQA guidelines"). However, the updated guidance will not be available during the time of this assessment. Therefore, project consistency with the air quality management plan is evaluated based on the methodology previously recommended by the air district as described below.

Projects directly linked to population growth produce emissions associated with that growth, such as those from motor vehicles and residential heating and cooling elements. These population-related emissions have been accounted for in the air quality

management plan. Population-related projects that align with the forecasted emissions values are regarded as consistent with the air quality management plan. The air district uses consistency with the air quality management plan to determine a project's cumulative impact on regional air quality under CEQA. The air district has established a consistency determination procedure tied to population growth – a project that does not result in an increase in population beyond that projected by the Association of Monterey Bay Area Governments is considered not to conflict with the air quality management plan. Since the proposed project is not population-generating, it would not be inconsistent with the air quality management plan.

The 2008 CEQA guidelines report that construction projects using typical construction equipment such as dump trucks, scrappers, bulldozers, compactors and front-end loaders that temporarily emit ozone precursors such as volatile organic compounds (VOC) or oxides of nitrogen (NO_x), are accommodated in the emission inventories of State- and federally-required air plans and would not have a significant impact on the attainment and maintenance of ozone thresholds. Consequently, the project would have no impact associated with conflict with an air quality plan.

b. Air quality impacts of the project are evaluated in the *Air Quality Report for the Eastbound Right Turn Lane at State Route 156 and The Alameda* (Illingworth & Rodkin 2024) (hereinafter "air quality report"). Information here is taken from the air quality report, which is included in Appendix B.

Construction activities are temporary sources of potential air quality impacts that, depending on the size and type of the project, commonly occur over a limited time period. Construction emissions have the potential to impact local air quality and/or pose localized health risks. Localized health risks are discussed under item "c" of this section. Construction emissions include equipment exhaust and fugitive dust emissions generated during grading, and ozone precursor emissions generated during the application of architectural coatings and asphalt paving material.

Construction criteria air emissions were quantified using the Cal-CET2021 model and compared to air district thresholds of significance for construction in the 2008 CEQA guidelines to determine impact significance. The only construction threshold of significance is for PM_{10} emissions. That threshold is 82 pounds per day. All other air district thresholds are for project operations, of which there will be none for the proposed project.

The criteria air emissions modeling results, found in Table 8 of the air quality report, show construction PM_{10} emissions of 1.23 pounds per day. This is substantially below the construction threshold of 82 pounds per day. Therefore, the construction air emissions impact is less than significant.

As described in Section 5.1 of the air quality report, Caltrans requires compliance with its standard specifications as identified in its *2024 Standard Specifications*. Section 13 of those specifications addresses water quality and requires a stormwater pollution prevention plan

be prepared that includes measures to reduce fugitive dust and material track-out from construction sites. Section 14 of the specifications requires that compliance with air quality management district regulations. Air district construction regulations include implementing best management practices that incorporate measures to reduce fugitive dust emissions. These measures are:

- Limit the area under construction at any one time.
- Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure.
- Prohibit all grading activities during periods of high wind (over 15 mph).
- Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).
- Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydro seed area.
- Haul trucks shall maintain at least 2'0" of freeboard.
- Cover all trucks hauling dirt, sand, or loose materials.
- Plant vegetative ground cover in disturbed areas as soon as possible.
- Cover inactive storage piles.
- Install wheel washers at the entrance to construction sites for all exiting trucks.
- Sweep streets if visible soil material is carried out from the construction site.
- Post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the Monterey Bay Unified Air Pollution Control District shall be visible to ensure compliance with Rule 402 (Nuisance).
- Limit the pieces of equipment used at any one time.
- Minimize the use of diesel-powered equipment (i.e., wheeled tractor, wheeled loader, roller) by using gasoline-powered equipment to reduce NOx emissions.
- Limit the hours of operation for heavy-duty equipment.
- Undertake project during non-ozone season (November 1 – April 30).

The project contractor will be required to meet these Caltrans' requirements. Construction air quality impacts would be less than significant.

c. Toxic air contaminants (TACs) are pollutants that may be expected to result in an increase in mortality or serious illness or may pose a present or potential hazard to human health. Health effects include cancer, birth defects, neurological damage, damage to the body's natural defense system, and diseases that lead to death. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuels combustion, and commercial operations (e.g., dry cleaners). Construction equipment and associated heavy-duty truck traffic generates diesel exhaust and fugitive dust that poses health risks

for sensitive receptors. Diesel particulate matter, which is a known TAC, is a component of diesel exhaust. Diesel exhaust is the predominant TAC in urban air and is estimated to represent about two-thirds of the cancer risk from TACs.

Toxic air contaminants in the form of diesel exhaust from construction equipment would be the primary potential impact consideration. These would be of most concern where intensive construction activities occur continuously in close proximity to sensitive receptors for a significant length of time such that prolonged exposure occurs. Sensitive receptors refer to those segments of the population most susceptible to poor air quality. Children, the elderly, and the chronically or acutely ill are the most sensitive population groups that are more susceptible to adverse effects of air pollution than others. Sensitive receptors residential, elementary school, retirement home, and hospital uses. Residential uses and the San Juan School are located in the immediate project area.

Construction phase sources of TAC emissions for the project would be short-term based on the 60-day construction period. The project will require periodic use of heavy-duty construction equipment during that time. Emissions from construction diesel engines are subject to control under regulations adopted by both the U.S. EPA and California Air Resources Board. U.S. EPA promulgated emission standards for off-road engines in 1998, with the California Air Resources Board adopting parallel standards in 2000. In 2004, Tier 4 emission standards were adopted and phased in for new engines between 2011 and 2014. In 2007, CARB adopted an off-road equipment regulation to accelerate reductions of NO_x and diesel PM from existing off-road engines. Beginning in 2012 and through 2023, the off-road regulation requires operators of older equipment to either install abatement devices, upgrade to Tier 3 and eventually Tier 4 engines, or to retire older equipment.

Given the short-term nature of the project, the limited and non-continuous use of heavy-duty diesel equipment, and the noted regulatory requirements, impacts from short-term exposure of sensitive receptors to TACs would be less than significant.

d. Odors are objectionable emissions of one or more pollutants that are a nuisance to healthy persons and may trigger asthma episodes in people with sensitive airways. Nuisance odors are commonly associated with refineries, landfills, sewage treatment, agriculture, etc. (Monterey Bay Air Resources District 2008). The proposed project would not be a source of odors that would affect a substantial number of people.

4. BIOLOGICAL RESOURCES

Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
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, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☒	☐	☐
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☒	☐
c.	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.), through direct removal, filing, hydrological interruption, or other means?	☐	☒	☐	☐
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Comments:

Evaluations of biological resources at the proposed fuel station and right lane projects have been conducted since 2014, and include:

- *Proposed Gas Station at 404 The Alameda and Highway 156 APN #002-520-012 Biological Assessment* (Regan Biological and Horticultural Consulting 2014);
- *Fuel Station, Convenience Store, and Quick Serve Restaurant (404 The Alameda) Initial Study/Mitigated Negative Declaration* (Hatch Mott MacDonald 2016);

- *Congdon's Tarplant Focused Survey Results for State Route 156/The Alameda Right Turn Lane Encroachment Permit, City of San Juan Bautista* (EMC Planning Group 2020);
- *USACE File SPN-2020-00144; State Route 156/The Alameda Right Turn Lane Project Design "No Permit Needed Letter"* (U.S. Army Corps of Engineers 2021);
- *Revised Wetland and Waterway Assessment for State Route 156/The Alameda Right Turn Lane Encroachment Permit, City of San Juan Bautista* (EMC Planning Group 2024); and
- *Draft State Route 156/The Alameda Right Turn Lane Encroachment Natural Environmental Study* (EMC Planning Group, latest revision December 2024).

A biological reconnaissance survey was conducted by EMC Planning Group senior biologist Gail Bellenger on December 17, 2019 to document existing habitats and evaluate the potential for special-status species to occur at the project site. A wetland/waterway assessment field survey was conducted on December 17, 2019, and existing conditions were confirmed on June 30, 2020. A focused plant survey was conducted on August 15, 2020, to determine presence/absence of Congdon's tarplant (*Centromadia parryi* spp. *congdonii*).

A review was conducted of updated site plans, aerial photographs, natural resource database accounts, and other relevant scientific literature. This included searching the U.S. Fish and Wildlife Service (USFWS) Endangered Species Database (USFWS 2024a), California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CDFW 2024a, CDFW 2024b), and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2024) to identify special-status plants, wildlife, and habitats known to occur in the vicinity of the project. A review of the USFWS National Wetlands Inventory (NWI) database was also conducted to identify jurisdictional aquatic features (wetlands, drainages, and/or riparian areas) on or adjacent to the project site (USFWS 2024b).

Existing Conditions

The project site is composed of a roadside swale at the bottom of a slope, vegetated with non-native grasses and forbs. At the far western boundary is a south to north flowing tributary to San Juan Creek. This drainage ditch is conveyed from the proposed project site through a double-box culvert underneath State Route 156, where it drains into a concrete channel connecting to San Juan Creek. Ponded water had collected at the time of survey in 2019 in a scoured area on the site in front of the double-box culvert. A row of planted trees was noted along the southern border of the site. A portion of the eastern side of the site contains a landscaped area with ornamental plants and mulching.

Non-native grassland and a small patch of disturbed willow riparian habitat are the dominant plant communities present, along with ornamental areas in the eastern portion of the site. Plants present include non-native grasses and ruderal (weedy) plants, such as bull thistle (*Cirsium vulgare*) and Italian thistle (*Carduus pycnocephalus*). Trees present include ornamental species planted adjacent to the developed areas such as pepper tree (*Schinus molle*) and bottlebrush (*Callistemon* sp.), and native species including a few willows (*Salix* sp.), and one small coast live oak (*Quercus agrifolia*).

Urban development and the State Route 156 corridor likely preclude most larger native wildlife species from using the project site, however common species such as raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and California ground squirrel (*Otospermophilus beecheyi*) are likely to occur in the project area. One dead Virginia opossum (*Didelphis virginiana*) was observed in the drainage ditch. Burrows along the eastern edge of the site were observed, likely created by Botta's pocket gopher (*Thomomys bottae*) or small rodents such as California vole (*Microtus californicus*) or mice (*Mus musculus*, *Reithrodontomys megalotis*, and *Peromyscus maniculatus*).

Several birds were observed flying near or over the site including red-tailed hawk (*Buteo jamaicensis*) and American crow (*Corvus brachyrhynchos*). Other bird species likely to occur include northern mockingbird (*Mimus polyglottos*), red-winged blackbird (*Agelaius phoeniceus*), California scrub jay (*Aphelocoma californica*), Eurasian collared dove (*Streptopelia decaocto*), and house finch (*Haemorhous mexicanus*).

a. **Special-Status Species**. Special-status species in this report are those listed as Endangered, Threatened, or Rare or as candidates for listing by the USFWS and/or CDFW; as Species of Special Concern or Fully Protected species by the CDFW; or as Rare Plant Rank 1B or 2B species by CNPS. Appendix C, Special-Status Species with Potential to Occur in the Project Vicinity, presents tables with special-status species search results, which lists the special-status species documented within the project vicinity, their listing status, suitable habitat description, and their potential to occur on the project site. Figure 5, Special-Status Species in the Project Vicinity, presents a map of the CNDDB results. No USFWS-designated critical habitat areas are located within or adjacent to the project site.

Special-Status Plant Species. No special-status plants were observed during the biological survey. One disturbance-tolerant species, Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*), a CNPS Rare Plant Rank 1B species, was determined to have potential to occur within disturbed areas along State Route 156. A focused plant survey was conducted on August 15, 2020, to determine presence/absence at the project site. A Congdon's tarplant reference population nearby in the City of Salinas was visited on the morning of the survey to confirm that the annual species was observable and in peak blooming condition. All suitable habitats for Congdon's tarplant within the project site were systematically surveyed, and plant species observed were recorded in field notes. Congdon's tarplant was not present on the project site during the focused plant survey. No other special-status plant species or potential habitat was observed.

Special-Status Wildlife Species. Special-status wildlife species with low potential to occur on the project site include California tiger salamander (*Ambystoma californiense*), southwestern pond turtle (*Actinemys pallida*), western spadefoot (*Spea hammondii*), and burrowing owl (*Athene cunicularia*). These species are addressed in the next sections, along with roosting bats and protected nesting birds that have potential to occur adjacent to the proposed project impact area.

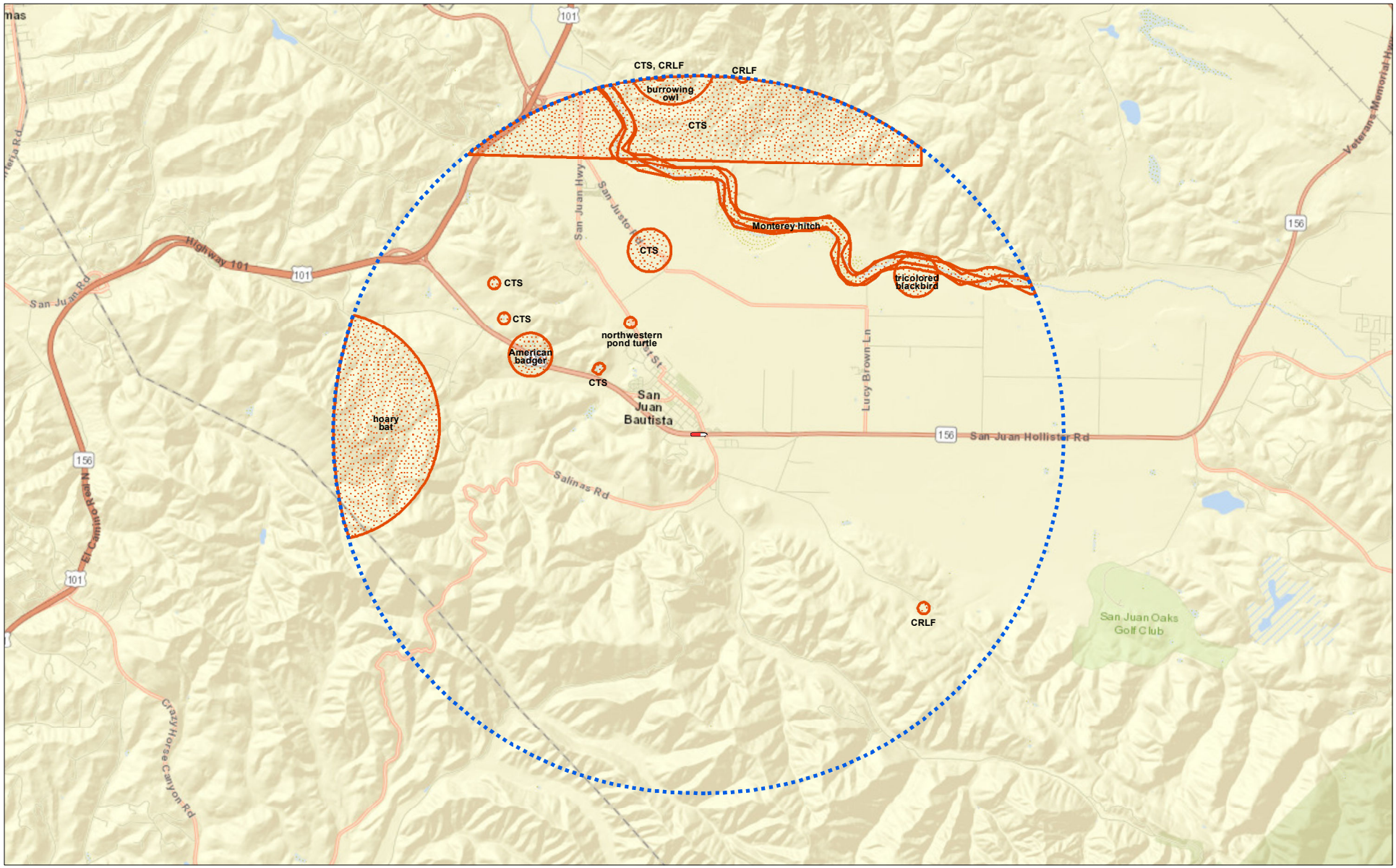
California Tiger Salamander. The federally and state-listed threatened California tiger salamander is a large terrestrial salamander. It occurs in central California from the Sacramento Valley to the south-central San Joaquin Valley, and in the surrounding foothills of both the Coast Ranges and the Sierra Nevada Mountains. California tiger salamanders are also recorded from the San Francisco Bay region, Sonoma County, the Monterey Bay region, and the valleys and foothills of San Luis Obispo and Santa Barbara counties. California tiger salamanders breed in temporary wetland pools, such as vernal pools, and other seasonal wetland bodies where ponded water is present for a minimum of three to four months, extending into the early spring. Such ponds and temporary wetlands provide necessary breeding and larval-stage habitat for the species. Adults spend most of the year in aestivation, underground in the burrows of small mammals, such as the California ground squirrel and/or Botta's pocket gopher (*Thomomys bottae*), or within other suitable subterranean retreats.

The City of San Juan Bautista is located within the Central California Distinct Population Segment for California tiger salamander, however there are no known occurrences of California tiger salamander in the City of San Juan Bautista. The closest known occurrences to the proposed project are:

- Occurrence Number 258 from 1991 is located about 1.0 miles northwest of the project in a stockpond (CDFW 2024a);
- Occurrence Number 1120 (two ponds) from 2013 is located about 1.2 and 1.5 miles northwest of the project in two small ephemeral ponds within a grassland grazed by cattle (CDFW 2024a);
- Occurrence Number 78 from 1973 is located about 2.0 miles north of the project (CDFW 2024a); and
- Occurrence Number 525 from 2000 is located about 2.2 miles north of the project in a large perennial reservoir within a seasonal drainage swale surrounded by grazed non-native grassland and oak woodland (CDFW 2024a).

Focused presence/absence protocol-level surveys were not conducted within the project area for this species and none were observed during the reconnaissance-level survey. Although ponded water was observed within the tributary to San Juan Creek, it is not likely to remain for a sufficient period to allow for successful breeding. The tributary to San Juan Creek may be utilized by California tiger salamander during migratory events, and small mammal burrows present could be utilized for refuge.

The proposed project is located immediately west of (and overlaps with) the Caltrans' San Benito Route 156 Improvement Project boundary. A Biological Assessment was prepared, and Section 7 consultation with the USFWS was initiated through Caltrans, as assigned by the Federal Highway Administration, after the preferred alternative was selected (USFWS 2008). Initially, Caltrans biologists determined that there would be no temporary or permanent impacts to upland habitat occupied by the California tiger salamander (Caltrans 2007). During formal consultation with the USFWS, however, habitat was identified closer to the project area.



0 1.2 miles

Project Boundary

3.1-Mile Radius

Special-Status Plants

Special-Status Wildlife

ESRI 2024, CDFW CNDDB 2024
CTS: California Tiger Salamander
CRLF: California Red-Legged Frog

Figure 5

Special-Status Species in the Project Vicinity

State Route 156 & The Alameda East-Bound Right-Turn Lane

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Construction activities could result in injury to or mortality (via accidental crushing by equipment) of an unknown number of CTS residing in small mammal burrows within upland habitat in the project area. This could also be particularly detrimental during rain events during the breeding season (typically from about November 1 to May 6) when adults could potentially disperse to ponds surrounding the project site to breed or during moist nights in May/June when juveniles are dispersing out of ponds to upland habitat. California tiger salamander could also be entombed in small mammal burrows collapsed by construction activities, which could result in injury or mortality.

The proposed project boundary is a total of approximately 0.35 acres. Approximately 0.14 acres of road shoulder considered potential upland California tiger salamander habitat will be temporarily impacted by the proposed project. Implementation of the following measures will help avoid and minimize potential impacts to the California tiger salamander.

Mitigation Measures

BIO-1 California Tiger Salamander. The project proponent shall obtain a Biological Opinion from the USFWS (Caltrans) and a 2081 Incidental Take Permit from the California Department of Fish and Wildlife (CDFW) for potential project impacts to California tiger salamander, and implement all avoidance, minimization, and compensatory mitigation measures required by these permits. Avoidance and minimization measures may include, but not be limited to, the following:

- To the maximum extent practicable, project activities within potential California tiger salamander upland and dispersal habitat will be implemented between May 15 and October 15, which is timed to occur between the breeding season and the fall dispersal period for the California tiger salamander.

- At least 30 days prior to the start of disturbance activities, the project proponent shall submit to USFWS and CDFW the names and qualifications of the qualified biologist and any monitoring biologists proposed to work at the site. Biologist must have experience identifying and handling California tiger salamander in all of its life stages. Preconstruction surveys and monitoring activities may not commence until the qualifications of the biologists are approved by USFWS and CDFW.

- Prior to preconstruction surveys, the qualified biologist shall prepare and submit a "Mortality Reduction and Relocation Plan" to USFWS and CDFW for review and approval. The plan shall include, but not be limited to, survey methods, burrow excavation methods, capture, handling and relocation methods; identification of where the salvaged individuals will be relocated to, and identification of a wildlife rehabilitation center or veterinary facility where injured individuals would be taken if an injured animal was found.

- No more than 30 days prior to the start of disturbance activities, a USFWS- and CDFW-approved qualified biologist shall conduct preconstruction surveys to determine presence/absence of California tiger salamander within the project site. Surveys shall provide 100 percent visual coverage of the area, including burrow openings and a 50-foot buffer zone. If individuals are found, the qualified biologist shall relocate them from the project area in accordance with the USFWS- and CDFW-approved Mortality Reduction and Relocation Plan. Survey results shall be submitted to USFWS and CDFW no more than 14 days prior to the beginning of disturbance activities. Surveys for other special-status species (southwestern pond turtle, western spadefoot) may occur concurrently.

- After conducting the preconstruction clearance surveys, small mammal burrows that could harbor CTS within the portion of the Project area to be disturbed or that cannot be avoided by 50 feet shall be excavated in accordance to a CDFW-approved Rodent Burrow Hand Excavation Plan.

- A rodent burrow hand excavation plan with protocol for hand excavation, potential relocation sites, protocol for determination of rodent burrows with highest likelihood of containing California tiger salamanders, and names of qualified personnel must be submitted to the U.S Fish and Wildlife Service at least 30 days before excavation activities are to begin.

- During vegetation removal and grading activities, a qualified biologist will survey for and relocate any California tiger salamanders identified. The qualified biologist shall relocate individuals in accordance with the USFWS- and CDFW-approved Mortality Reduction and Relocation Plan.

BIO-2 California Tiger Salamander Compensatory Mitigation. A condition of the Section 2081 ITP under CESA (to be acquired) will be to fully mitigate impacts of take of covered species that will result from implementation of the proposed project. Approximately 0.4 acres of potential California tiger salamander upland habitat will be temporarily impacted as a result of this project. Caltrans anticipates that CDFW will require compensatory habitat permanent protection and perpetual management of 0.4 acres for temporary impacts to potential California tiger salamander upland habitat (up to a 1:1 compensatory mitigation ratio for 0.4 acres of temporary impacts), resulting in an anticipated compensatory mitigation lands total of 0.4 acres. It is possible that CDFW will concur with lower mitigation ratios if they determine that the impacted area is less than high quality habitat. Details regarding the selection and implementation of one of these two options and the exact amount of mitigation required will be detailed during the Section 2081 permitting process.

Prior to initiating ground- or vegetation-disturbing project activities, the applicant shall satisfy the requirement to provide an anticipated 0.4 acres of California tiger salamander habitat by complying with one of the following:

1. Purchase credits equivalent of up to 0.4 acres at a CESA-certified and CDFW approved Conservation Bank (in a location to be determined) authorized to sell credits for CTS; or

2. Acquire, permanently preserve, and perpetually manage up to 0.4 acres of Habitat Management Lands.

BIO-3 Prior to ground disturbance, the applicant shall hire a qualified biologist to conduct a training session for all construction personnel. At a minimum, the training shall include a description of special-status species potentially occurring in the project vicinity, including, but not limited to, California tiger salamander, burrowing owl, southwestern pond turtle, western spadefoot, special-status bats, and nesting birds and raptors. Their habitats, general measures that are being implemented to conserve species as they relate to the project, and the boundaries within which construction activities will occur will be explained. Informational handouts with photographs clearly illustrating the species' appearances shall be used in the training session. All new construction personnel shall undergo this mandatory environmental awareness training.

The qualified biologist shall provide documented evidence of completion of this training to the City of San Juan Bautista prior to ground disturbance.

Southwestern Pond Turtle. Southwestern pond turtle is a CDFW Species of Special Concern and is currently proposed for listing as threatened under FESA. It occurs in permanent or nearly permanent aquatic features in a wide variety of habitats throughout California, west of the Sierra-Cascade crest; it is absent from desert regions, except the Mojave Desert along the Mojave River and its tributaries. Its elevation range extends from near sea level to 1,430 meters (4,690 feet). Southwestern pond turtles require basking sites such as partially submerged logs, rocks, mats of floating vegetation, or open mud banks. The home range of southwestern pond turtles is typically quite restricted; however, ongoing research indicates that in many areas, turtles may leave the watercourse in late fall and move up to approximately 1,200 feet (350 meters) into upland habitats where they burrow into duff and/or soil and overwinter (Pilliod et. al. 2013). They remain active year-round and may move several times during the course of overwintering.

There are no known occurrences of southwestern pond turtle in the City of San Juan Bautista. The closest known occurrence to the proposed project is Occurrence Number 254 from 2003, located about 1.1 miles northwest of the project along a roadside ditch with abundant wetland vegetation and is a tributary to San Juan Creek (CDFW 2024).

Focused presence/absence protocol-level surveys were not conducted within the project area for this species, and none were observed during the reconnaissance-level survey. The tributary to San Juan Creek may be utilized by southwestern pond turtle during migratory events. Species presence is therefore inferred within the project area.

Disturbance to aquatic and upland habitat may result in the harassment, habitat removal, or direct mortality of southwestern pond turtle. This would be a significant adverse environmental impact. Implementation of the following mitigation measures would reduce the potential impact to southwestern pond turtle to a less-than-significant level.

Mitigation Measure

BIO-4 Southwestern Pond Turtle. The project proponent shall implement the following measures for the protection of southwestern pond turtle:

- Within 24 hours prior to vegetation removal or ground-disturbing activities within 200 feet from the outer edge of aquatic vegetation, a qualified biologist retained by the applicant that is familiar with southwestern pond turtles, including their eggs and nests, shall conduct a pre-construction survey of the area in and adjacent to the project site. If any pond turtles are found in or adjacent to the project site, construction activities shall not commence until the turtles have left the area or the qualified biologist relocates the turtles to nearby suitable habitat a minimum of 300 feet from the project site. Pond turtle relocation shall only be conducted with California Department of Fish and Wildlife (CDFW) authorization (and with U.S. Fish and Wildlife Service authorization, if species is listed prior to construction);

- Disturbance to aquatic vegetation shall be avoided to the extent feasible. Placement of all staging areas, access roads, and other construction related facilities shall be located away from the marsh area; and

- Within 200 feet from the outer edge of aquatic vegetation, all construction-related holes shall be covered at the end of each workday to prevent entrapment of western pond turtles.

Western Spadefoot. Western spadefoot is a CDFW Species of Special Concern and is currently proposed for listing under FESA. This species of toad lives within grassland habitats of Central California and the Southern California coast. It requires temporary pools of water free of predators (such as fish, bullfrogs, or crayfish) for egg-laying. Breeding usually occurs in late winter. With the exception of the breeding season and foraging excursions during rain events, this species spends most of its life aestivating in self-excavated burrows, although burrows of small mammals are sometimes utilized.

There are no known occurrences of western spadefoot in the City of San Juan Bautista. The closest known occurrence to the proposed project is Occurrence Number 341 from 2006, located about 5.0 miles east of the project in a ruderal agricultural field with a seasonal pool (CDFW 2024).

Focused presence/absence protocol-level surveys were not conducted within the project area for this species, and none were observed during the reconnaissance-level survey. If present for sufficient duration, pools within the tributary to San Juan Creek may be utilized by western spadefoot.

Disturbance to aquatic and upland habitat may result in the harassment, habitat removal, or direct mortality of western spadefoot. This would be a significant adverse environmental impact. Implementation of the following mitigation measures would reduce the potential impact to a less-than-significant level.

Mitigation Measure

BIO-5 Western Spadefoot. The project proponent shall implement the following measures for the protection of western spadefoot:

- Within 24 hours prior to vegetation removal or ground-disturbing activities within 50 feet from the outer edge of aquatic vegetation, the project proponent shall retain a qualified biologist familiar with western spadefoot, including their eggs and larvae, to conduct a pre-construction survey of the area in and adjacent to the project site. If any western spadefoot are found in or adjacent to the project site, construction activities shall not commence until the qualified biologist relocates the eggs, larvae, and/or adults to nearby suitable habitat a minimum of 300 feet from the project site. Western spadefoot relocation shall only be conducted with California Department of Fish and Wildlife authorization.

- Disturbance to aquatic vegetation shall be avoided to the extent feasible. Placement of all staging areas, access roads, and other construction related facilities shall be located away from the riparian area.

- Within 200 feet from the outer edge of aquatic vegetation, all construction-related holes shall be covered at the end of each workday to prevent entrapment of western spadefoot.

Burrowing Owl. Burrowing owl is a California Species of Special Concern and a candidate for higher listing. Burrowing owls live and breed in burrows in the ground, especially in abandoned California ground squirrel burrows. Optimal habitat conditions include large open, dry and nearly level grasslands or prairies with short to moderate vegetation height and cover, areas of bare ground, and populations of burrowing mammals. There are no known occurrences of burrowing owl in the City of San Juan Bautista. The closest known occurrence to the proposed project is occurrence number 435 from 2001 located about 2.9 miles north of the project. The observation noted at least two adults and multiple burrows in a grazed oak woodland/grassland with high ground squirrel activity (CDFW 2024a). Occurrence number 1030 from 2006, located about 4.0 miles southeast of the project and included the observation of at one adult and one burrow in an area of annual grassland on the San Juan Oaks Golf Course (CDFW 2024a).

Although unlikely, if burrowing owl is present on or adjacent to the project site, construction activities could result in the loss or disturbance of individual animals. This would be a significant adverse environmental impact. Implementation of the following mitigation measures would reduce the potential impact to burrowing owl to a less-than-significant level.

Mitigation Measure

BIO-6 Burrowing Owl. To avoid loss of or harm to burrowing owl, the following measures shall be implemented:

a. Prior to issuance of a grading permit, and to avoid/minimize impacts to burrowing owls potentially occurring within the project site, the applicant shall retain a biologist qualified in ornithology to conduct surveys for burrowing owl. The qualified biologist shall conduct a two-visit (i.e., morning and evening) presence/absence survey at areas of suitable habitat on and adjacent to the project site boundary no less than 14 days prior to the start of construction or ground disturbance activities. Surveys shall be conducted according to the methods for take avoidance described in the *Burrowing Owl Survey Protocol and Mitigation Guid*elines (CBOC 1993) and the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). If no burrowing owls are found, a letter report confirming absence shall be prepared and submitted to the City of San Juan Bautista and no further measures are required.

b. Because burrowing owls occupy habitat year-round, seasonal no-disturbance buffers, as outlined in the Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and the Staff Report on Burrowing Owl Mitigation (CDFW 2012), shall be in place around occupied habitat prior to and during any ground disturbance activities. The following table includes buffer areas based on the time of year and level of disturbance (CDFW 2012), unless a qualified biologist approved by the California Department of Fish and Wildlife verifies through non-invasive measures that either: 1) birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

Location	**Time of Year**	**Level of Disturbance Buffers (meters)**		
		Low	**Med**	**High**
Nesting Sites	April 1 – Aug 15	200 m	500 m	500 m
Nesting Sites	Aug 16 – Oct 15	200 m	200 m	500 m
Nesting Sites	Oct 16 – Mar 31	50 m	100 m	500

c. If burrowing owl is found and avoidance is not possible, burrow exclusion may be conducted by qualified biologists only during the non-breeding season, before breeding behavior is exhibited and after the burrow is confirmed empty through non-invasive methods, such as surveillance. Occupied burrows shall be replaced with artificial burrows at a ratio of one collapsed burrow to one constructed artificial burrow (1:1). Evicted burrowing owls may attempt to colonize or re-colonize an area that would be impacted, thus ongoing surveillance during project activities shall be conducted at a rate sufficient to detect burrowing owls if they return.

d. If surveys locate occupied burrows in or near construction areas, consultation with the California Department of Fish and Wildlife shall occur to interpret survey results and develop a project-specific avoidance and minimization approach. Once the absence of burrowing owl has been confirmed, a letter report shall be prepared and submitted to City of San Juan Bautista.

Special-Status Bats. Bats were not observed during the reconnaissance-level biological field survey. However, trees in the project area and/or buildings or structures on or adjacent to the project site could provide roosting habitat for special-status bat species known to occur in the vicinity of the project site, including the California Species of Special Concern hoary bat (*Lasiurus cinereus*).

Bat species inhabit a wide variety of habitats including grasslands, woodlands, and forests. Project development and construction activities at the project site could result in the disturbance of roost and/or natal sites occupied by special-status bats on or adjacent to the project site, if present. Loss or harm to special-status bats is considered a significant adverse impact. Implementation of the following mitigation measure will reduce the potential impact to special-status bats to a less-than-significant level.

Mitigation Measure

BIO-7 Roosting Bats. The following measures shall be implemented to avoid loss of or harm to special-status bat species:

a. Approximately 14 days prior to construction activities, a qualified biologist shall conduct a habitat assessment for bats and potential roosting sites in trees or buildings within 50 feet of the construction easement. These surveys shall include a visual inspection of potential roosting features (bats need not be present) and a search for presence of guano within the project site, construction access routes, and 50 feet around these areas. Cavities, crevices, exfoliating bark, and bark fissures that could provide suitable potential nest or roost habitat for bats shall be surveyed. Assumptions can be made on what species is present due to observed visual characteristics along with habitat use, or the bats can be identified to the species level with the use of a bat echolocation detector such as an "Anabat" unit. Potential roosting features found during the survey shall be flagged or marked.

b. If no roosting sites or bats are found, a letter report will be prepared by the biologist and submitted to the City of San Juan Bautista, where it will be kept on file, and no further measures are required.

c. If bats or roosting sites are found, bats shall not be disturbed without specific notice to and consultation with California Department of Fish and Wildlife.

d. If bats are found roosting outside of the nursery season (May 1 through October 1), California Department of Fish and Wildlife shall be consulted prior to any eviction or other action. If avoidance or postponement is not feasible, a Bat Eviction Plan will be submitted to California Department of Fish and Wildlife for written approval prior to project implementation. A request to evict bats from a roost includes details for excluding bats from the roost site and monitoring to ensure that all bats have exited the roost prior to the start of activity and are unable to re-enter the roost until activity is completed. Any bat eviction shall be timed to avoid lactation and young-rearing. If bats are found roosting during the nursery season, they shall be monitored to determine if the roost site is a maternal roost. This could occur by either visual inspection of the roost bat pups, if possible, or by monitoring the roost after the adults leave for the night to listen for bat pups. Because bat pups cannot leave the roost until they are mature enough, eviction of a maternal roost cannot occur during the nursery season. Therefore, if a maternal roost is present, a 50-foot buffer zone (or different size if determined in consultation with the California Department of Fish and Wildlife) shall be established around the roosting site within which no construction activities including tree removal or structure disturbance shall occur until after the nursery season.

Nesting Birds. Protected raptors including Cooper's hawk (*Accipter cooperii*) a species of special concern, the White-tailed kite (*Elanus leucurus*) a Fully Protected Species, and nesting bird species protected under the federal Migratory Bird Treaty Act and California Fish and Game Code, have the potential to nest in buildings or structures, on open ground, or in any type of vegetation, including trees, during the nesting bird season (January 15 through September 15). The project site contains open grassland areas suitable for open ground nesting, as well as trees. Construction activities, including ground disturbance, can impact protected bird species, should nesting birds be present during construction. If protected bird species are nesting adjacent to the project site during the bird nesting season, then noise-generating construction activities could result in the loss of fertile eggs, nestlings, or otherwise lead to the abandonment of nests. Implementation of the following mitigation measure would reduce the potential impact to nesting birds to a less-than-significant level.

Mitigation Measure

BIO-8 Nesting Birds and Raptors. To avoid impacts to nesting birds during the nesting season (January 15 through September 15), all Phase I construction activities

should be conducted between September 16 and January 14, which is outside of the bird nesting season. If construction or project-related work is scheduled during the nesting season (February 15 to August 30 for small bird species such as passerines; January 15 to September 15 for owls; and February 15 to September 15 for other raptors), a qualified biologist shall conduct nesting bird surveys.

a. Two surveys for active bird nests will occur within 14 days prior to start of construction, with the final survey conducted within 48 hours prior to construction. Appropriate minimum survey radii surrounding each work area are typically 250 feet for passerines, 500 feet for smaller raptors, and 1,000 feet for larger raptors. Surveys will be conducted at the appropriate times of day to observe nesting activities. Locations off the site to which access is not available may be surveyed from within the site or from public areas. If no nesting birds are found, a letter report confirming absence will be prepared and submitted to the City of San Juan Bautista and no further mitigation is required.

b. If the qualified biologist documents active nests within the project site or in nearby surrounding areas, an appropriate buffer between each nest and active construction shall be established. The buffer shall be clearly marked and maintained until the young have fledged and are foraging independently. Prior to construction, the qualified biologist shall conduct baseline monitoring of each nest to characterize "normal" bird behavior and establish a buffer distance, which allows the birds to exhibit normal behavior. The qualified biologist shall monitor the nesting birds daily during construction activities and increase the buffer if birds show signs of unusual or distressed behavior (e.g., defensive flights and vocalizations, standing up from a brooding position, and/or flying away from the nest). If buffer establishment is not possible, the qualified biologist or construction foreman shall have the authority to cease all construction work in the area until the young have fledged and the nest is no longer active. Once the absence of nesting birds has been confirmed, a letter report will be prepared and submitted to the City of San Juan Bautista.

b. **Riparian Habitat or Sensitive Natural Communities.** Riparian vegetation is location adjacent to the project site, however this area will be avoided and there are no riparian habitats or sensitive natural communities within the project site.

c. **Waters of the United States**. A preliminary wetland and waters of the U.S. assessment was completed and revised based on input from the USACE in 2020. There is one aquatic feature within the project boundary: an intake culvert. An intermittent drainage ditch is located immediately west of the project boundary and outside of the impact area.

Offsite. An offsite intermittent drainage ditch flows from south to north from a concrete channel "V-ditch" positioned west of the project site and into a concrete double- box intake culvert; it flows under State Route 156 and continues north in a channelized

structure. The OHWM width for the off-site intermittent drainage ditch segment located adjacent to the proposed project work area is about 8 feet at the southern existing fence-line and widens to about 15 feet at the culvert leading under State Route 156. The ditch depth is about 3 feet, and the top of bank widths are about 20 to 28 feet. There was a small amount of standing water (less than one foot deep) at the time of wetland assessment next to the intake culvert. The ditch is a tributary connected to San Juan Creek, which downstream enters the San Benito River, and then joins the Pajaro River and empties into Monterey Bay west of the City of Watsonville. The drainage ditch is mapped and classified in the National Wetlands Inventory (USFWS 2024a) as: riverine (channel/open conduit), intermittent (flows only part of year), streambed (river/channel), temporary flooded (surface water present for brief periods), and excavated (man-made). The drainage is located west of the project boundary, and no impacts to the feature are proposed. No permits will be required for impacts to the drainage ditch.

Onsite. The intake culvert is an a 24-inch reinforced concrete pipe installed by Caltrans to transport a small amount of storm water runoff from under the highway, and sheet flows west into the on- site drainage ditch. No standing water was observed here during the field surveys. It does not meet any of the three parameters for the USACE definition of a wetland. Because this drainage feature does not contain OHWM or definable bed/banks, or support a stand of riparian vegetation, it is not considered jurisdictional by the USACE (2020) and not likely to be considered jurisdictional by CDFW. Constructed and maintained stormwater features such as this intake culvert are excluded from RWQCB jurisdiction. Implementation of the following mitigation measure would avoid/reduce impacts to aquatic features on and downstream from the project site:

Mitigation Measure

BIO-9 Protection of Aquatic Features. The following avoidance and minimization measures will be implemented to minimize impacts to aquatic features on and downstream from the project site:

a. If required, prior to construction, a Mitigation and Monitoring Plan (MMP) shall be prepared to mitigate impacts to vegetation and natural habitats. The MMP shall be consistent with federal and state regulatory requirements and will be amended with any regulatory permit conditions, as required. The applicant shall implement the MMP as necessary during construction and immediately following project completion.

b. Prior to any ground-disturbing activities, ESA fencing shall be installed around aquatic features, and the dripline of trees to be protected within the project limits. Caltrans-defined ESAs shall be noted on design plans and delineated in the field prior to the start of construction activities.

c. Construction activities shall be timed to occur between June 1 and October 31 in any given year, when the surface water is likely to be dry or at a seasonal minimum.

d. During construction, all project-related hazardous materials spills within the project site shall be cleaned up immediately. Readily accessible spill prevention and cleanup materials shall be kept by the contractor on-site at all times during construction.

e. During construction, erosion control measures shall be implemented. Silt fencing, fiber rolls, and barriers shall be installed as needed between the project site and other waters and riparian habitat. At a minimum, erosion controls shall be maintained by the contractor on a daily basis throughout the construction period.

f. During construction, the staging areas shall conform to Best Management Practices (BMPs) applicable to attaining zero discharge of stormwater runoff. At a minimum, all equipment and vehicles shall be checked and maintained by the contractor on a daily basis to ensure proper operation and avoid potential leaks or spills.

d. **Wildlife Movement.** Wildlife movement corridors provide connectivity between habitat areas, enhancing processes like nutrient flow, gene flow, seasonal migration, pollination, and predator-prey relationships. Increasing connectivity is a critical strategy for addressing habitat loss and fragmentation, a top threat to biodiversity.

The project site is not located within any previously defined essential habitat connectivity areas as mapped by the *California Essential Habitat Connectivity Project* (CDFW 2024d). Movement of larger mammals between the project site and regional open space lands is likely to be restricted due to the lack of physical linkages and existing barriers (e.g., roads, developed areas). To the extent that small and fragmented patches of remnant habitats occur adjacent to the project area, such as the drainage ditch and tributary to San Juan Creek, they have become virtual islands of habitat and provide limited opportunity for wildlife movement and exchange of genetic material. Dispersal to and from the project site by small mammals, amphibians, and reptiles is possible, but limited by roadways, residential development, and agricultural fields. Therefore, the project site does not act as a major wildlife corridor, movement pathway, or linkage between larger habitat areas for terrestrial wildlife and the proposed project would have a less-than-significant impact on wildlife movement.

e. **Local Biological Resource Policies/Ordinances.** The City of San Juan Bautista General Plan has goals in place to protect natural resources and improve environmental quality while promoting growth and development. An important objective of the conservation element is the protection of all state and federally listed special-status species and their critical habitat. Policy CO 4.1.1 states that projects will "Comply with federal and state laws regarding the protection of special-status species and habitat, as defined by US Fish and Wildlife Service," Additional goals in the conservation element call for the protection of wildlife, habitat, air quality, and water resources. This biological resource section addresses these goals.

Protected Trees. The proposed project will not remove protected trees.

f. **Conservation Plans.** There are no critical habitat boundaries, habitat conservation plans, natural community conservation plans, or other approved local, regional, or state habitat conservation plans applicable to the proposed project site (CDFW 2024d, USFWS 2024b).

5. CULTURAL RESOURCES

Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Cause a substantial adverse change in the significance of a *historical resource* pursuant to section 15064.5?	☐	☒	☐	☐
b.	Cause a substantial adverse change in the significance of a *unique archaeological resource* pursuant to section 15064.5?	☐	☐	☒	☐
c.	Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

Comments:

a. A *Historical Resources Compliance Report* (EMC Planning Group 2023) (hereinafter "historic resources report") was prepared for the proposed project. The report is not included in the appendices as it contains information that is exempt from the Public Records Act. It includes a summary of historic resources within 1/8th mile of the project area limits. Background research conducted to ascertain the potential presence of historic resources included communications with the San Juan Bautista Historical Society, National Register of Historic Places, California Register of Historic Places, California historical Landmarks, California Points of Historical Interest, and California Historical Resources Information System.

The Benjamin Wilcox House (P-35-000137) is the only registered historic resource (National Register of Historic Places P-35-000137) identified within 1/8th of a mile. It is located at 315 The Alameda, adjacent to the project area at the southwest corner of State Route 156/The Alameda intersection. It represents the only example of a Gothic Revival residence in San Juan Bautista and is the architectural work of George Chalmers, a trained builder who came to San Juan Bautista in the 1850s. As the only representative of this style in a local context, the structure occupies an important niche in portraying the stylistic development of the built environment. Details about the resource are included in the cultural resources report.

Highway Traffic Vibration Potential. The centerline of the proposed turn lane would be about 50 feet from the Benjamin Wilcox House. The closest lane of The Alameda is about 30-40 feet from the Benjamin Wilcox House. Traffic on The Alameda would remain closer to the residence than State Route 156 traffic. Consequently, the new turn lane would not increase traffic-generated vibration any more than is currently present with existing traffic on The Alameda. The referenced Caltrans Manual states that maximum highway truck traffic vibration levels at a distance of 50 feet would be less than

0.01 inch/second. This is well below the conservative project criterion of 0.1 inch/second peak particle acceleration for vibration at a historic structure. Therefore, the vibration study concluded that traffic vibration would not have a significant impact on the Benjamin Wilcox House.

Construction Vibration Potential. While the proposed project would not directly impact the resource, it would place construction equipment sources of vibration in proximity to the house and locate transportation sources of vibration (e.g., truck traffic) closer to the home than occurs under existing conditions. To evaluate the potential to for this change to impact the residence, an *Alameda Right Turn Lane Traffic and Construction Vibration* study ("vibration study") was prepared by Charles M. Slater Associates in 2020. It is included as Appendix D. The report references Caltrans 2013 Transportation and Construction Vibration Guidance Manual guidance for vibration impacts for "fragile buildings" at 0.1 inch/second peak particle velocity for continuous/frequent intermittent sources and 0.2 inch per second peak particle velocity for transient sources such as construction equipment and traffic, particularly heavy-duty trucks. To be conservative, the vibration study uses the lower exposure velocity as the reference exposure velocity for assessing potential impacts.

Table 2 in the vibration study shows construction vibrations levels for various types of equipment at 25 feet and 50 feet from the source. Of the representative types of equipment listed, use of a vibratory roller within 25 to 50 feet of the house is the only type of equipment that could generate vibration with potential to damage the structure. Therefore, a conclusion is drawn that this equipment type should not be utilized within this distance of the structure.

Implementation of the following mitigation measure would ensure that impacts on the historic resource from vibration are avoided.

Mitigation Measure

CUL-1 The contractor shall include a work specification in construction documents for the project that use of vibratory rollers within 25-50 feet of the Benjamin Wilcox House be prohibited.

Broader vibration effects of the project are evaluated under item "b" in Section 13, Noise. Refer to that discussion for more information.

b. Effects of the project on unique archaeological resources were evaluated in the *Draft Archaeological Survey Report for the State Route 156/The Alameda Right Turn Lane Encroachment Permit* (EMC Planning Group 2020) (hereinafter "archaeological report"). The report is not included in the appendices as it contains information that is exempt from the Public Records Act.

As part of the analysis, the staff at the Northwest Information Center (NWIC) of the California Historic Resource Information System (CHRIS) conducted a record search and literature review on December 13, 2019 (NWIC File No.: 19-0997). The NWIC records

search covered a 1/8th-mile radius around the project. The NWIC searched files for information on previously recorded archaeological sites within and adjacent to the study area to identify and evaluate the potential for the presence of cultural resources. The search included a review of the California Inventory of Historic Resources (1976), the Historic Properties Directory (Office of Historic Preservation), and other pertinent State of California Transportation Agency Department of Transportation historic data for San Benito County available at the NWIC.

Five cultural resource studies have been conducted within the project area limits (S-22819, 34278, 36748, 38300, and 47925). No evidence of prehistoric cultural resources was found within the project boundary as a result of these investigations.

An archaeological assessment survey was also conducted at the site. No surface evidence of cultural resources was observed during the survey except for record number P-35-000137 as reported in item "a" above.

Where there is no evidence of unique archaeological resources being present within the site, there remains potential that such resources, if present, could be uncovered and damaged during excavations and other earthwork at the site. Section 14-02, Cultural Resources, in Caltrans' *2024 Standards Specifications Book* includes specifications for the steps to be taken by contractors should archaeological resources be uncovered during construction activities. Resources are not to be disturbed, all work within a 60-foot radius is to be stopped, the area is to be secured, and the project contractor/engineer notified. Caltrans would then investigate the discovery, with mitigation planning to be identified at that time. As a contract provision, Caltrans will require project contractors to meet the Section 14-02 guidance and specifications. Contractor conformance with the standards would ensure that impacts on unique cultural resources would be less than significant.

c The project site is not located near an existing cemetery or other known place of human interment. To investigate the potential that Native American human remains could be located within the site, the NAHC was contacted as part of the tribal consultation process conducted pursuant to AB 52. The NAHC responded that a records search of the sacred lands file indicated positive results for the presence of Native American cultural resources in the immediate project area. The NAHC records search suggests that there may be potential for Native American human remains to be located in the project area.

Potential impacts on unknown Native American human remains or other unknow human remains could occur as a result of excavations and other earthwork at the site should such resources be present. As a contract provision, Caltrans will require project contractors to meet the Section 14-02 guidance, as described in item "b" above, Contractor conformance with the standards would ensure that impacts on human remains, if uncovered during construction activities, would be less than significant.

6. ENERGY

Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b.	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Comments:

a-b. The proposed project would utilize energy as part of the construction process. Energy demand would be short-term based on the short-term construction period. The primary forms of energy demand would be fuel use in off-road and on-road construction equipment and vehicles and from contractor travel trips, and electricity. Based on the emissions modeling conducted for the project using the Caltrans' Cal-CET2021 model, approximately 54 gallons per day of gasoline and diesel and 2,148 kilowatt hours of electricity would be used per day (Illingworth & Rodkin 2024). Model inputs included the type, number and duration of use of individual construction equipment.

A construction project could be considered to result in significant energy impacts due to wasteful, inefficient, or unnecessary consumption of energy if its energy demand is extraordinary or its gross energy demand is excessive. Neither is the case for the proposed project.

The project is a common construction activity that is limited in scope and duration. It is being implemented to support an approved land use project that is considered beneficial by the City of San Juan Bautista. Therefore, the project is necessary. Construction equipment utilized by the contractor will be required to conform to current fuel efficiency standards promulgated by the California Air Resources Board and U.S. Environmental Protection Agency. The proposed project would consume energy, but it would not be inefficient, wasteful, or unnecessary. Therefore, the impact would be less than significant.

7. GEOLOGY AND SOILS

Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures 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:				
	(1) 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?	☐	☐	☐	☒
	(2) Strong seismic ground shaking?	☐	☐	☒	☐
	(3) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
	(4) Landslides?	☐	☐	☐	☒
b.	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c.	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d.	Be located on expansive soil, creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

Comments:

a. **Rupture of Earthquake Fault.** The project site is located within a seismically active region, but is outside of an Alquist-Priolo Earthquake Fault Zone.

Ground Shaking, Liquefaction and Landslides. It is reasonable to assume that the proposed improvements will be subjected to ground shaking from at least one moderate to severe earthquake during its lifetime. However, risks to public safety would be nominal given that the project does not include habitable structures or critical public facilities. The improvements would be constructed to Caltrans' standards

The project site is not located in a liquefaction or landslide hazard area.

b. The project site is located within an area of low erosion potential hazard. Site preparation and construction activities would expose soil surfaces to erosion. However, construction activities must be conducted consistent with specifications included in Section 13-2, Water Pollution Control Program in Caltrans' *2024 Standards Specifications Book*, identifies measures to be taken to reduce water quality impacts from construction projects for which Caltrans has discretionary approval. Requirements include preparing s storm water control plan and a stormwater pollution prevention plan that includes specifications for how soil erosion is to be prevented at construction sites to avoid water quality impacts from sedimentation. Construction sites must be monitored to ensure the specifications are being met. Section 21-2, Erosion Control Work, also identifies erosion control specifications for applying permanent erosion control measures to the soil surface and direction for timing and completing erosion control actions. These are uniformly applied standards applied by Caltrans to all construction activities that occur within Caltrans' right-of-way.

   As a contract provision, Caltrans will require project contractors to meet these specifications. Contractor conformance with the standards would ensure that potential soil erosion impacts would be less than significant.

c. As illustrated in the project plans included Appendix A, the existing paved portion of the site is level, a nominal amount of grading/fill required to expand the existing paved section of the highway. There are no known liquefaction hazard or landslide hazard conditions at the site which could pose a threat to the integrity of the project improvements or that would be exacerbated (in the case of landslide hazard) by the project.

d. The proposed improvements are located on alluvial sedimentary soils of Holocene age that are dominated by sand and gravel from the San Benito River. Relative to soils with a high clay content that are known to have higher potential shrink-swell potential, sand and gravel have low shrink-swell potential. Therefore, risks to the proposed improvement from this hazard would be low and the impact would be less than significant.

e. No septic tanks are proposed.

f. Potential impacts on paleontological resources are evaluated in the *Paleontological Resource Assessment for the SR156/The Alameda EB Right Turn Land Addition Project* (Chronical Heritage 2023). The report is included in Appendix E. The purpose of the assessment was to identify the geologic units that may be affected by the project and to determine the

paleontological sensitivity of the geologic units as a basis to assess potential impacts. Because the project is subject to Caltrans approval, Caltrans' tripartite scale of high, low, and no paleontological resource potential was used to evaluate the paleontological resource potential of rock units underlying the site.

Based on geologic mapping referenced in the assessment, the project site is entirely underlain by Quaternary alluvium. Additional geologic mapping of the project area at a larger 1:24,000 scale more narrowly defines the alluvial sedimentary deposit as Holocene age and specifies it is dominated by sand and gravel from the San Benito River. Holocene deposits are typically too young to have accumulated or preserved significant biological material and are assigned a low paleontological sensitivity as a result. In combination with the fact that significant excavation will not be needed to construct the project, the proposed project would not directly or indirectly destroy a unique paleontological resource or site or a unique geologic feature.

8. GREENHOUSE GAS EMISSIONS

Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b.	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Comments:

a. The project is a construction activity. It involves no long-term operational aspect in that once the proposed improvements are completed, the project is completed. Greenhouse gas (GHG) impacts are; therefore, discussed here solely in the context of the short-term construction activity.

The air district has not adopted guidance for evaluating the GHG impacts of land use projects. In this situation, it is common for lead agencies to defer to the guidance and thresholds of significance adopted by other local or regional agencies where such guidance is supported by substantial evidence. For land use projects in San Benito County, lead agencies commonly refer to GHG analysis guidance provided by the Bay Area Air Quality Management District in its *California Environmental Quality Act Air Quality Guidelines* (Bay Area Air Quality Management District 2022). That guidance states that "Because construction emissions are temporary and variable, the air district has not developed a quantitative threshold of significance for construction-related GHG emissions. However, the lead agency should quantify and disclose GHG emissions that would occur during construction using available data and tools to determine the amount, types, and sources of GHG emissions resulting from the project."

As described previously, criteria air emissions and GHG emissions for the proposed project were modeled as part of the air quality report discussed in Section 3, Air Quality. Table 8 in the air quality report shows the modeling results. Total GHG emissions are projected at 25 metric tons per year.

Given that construction GHG emissions from construction activities are not considered by the Bay Area Air Quality Management District to be a significant source of GHG emissions warranting a significance determination, GHG impacts from the proposed project would be less than significant.

b. The GHG analysis guidance in the Bay Area Air Quality Management District CEQA Guidelines is considered to be an applicable plan for reducing GHG emissions. That plan was developed to provide guidance for actions local agencies can and should take to reduce GHG emissions from new development. Because that guidance concludes that construction projects are not a substantial contributor to GHG impacts, the proposed project would not conflict with the applicable GHG reduction plan.

9. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, create a significant hazard to the public or the environment?	☐	☐	☐	☒
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 a public-use airport, result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g.	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

Comments:

a-b. The proposed project would not include activities that require routine transport, use, or disposal of hazardous materials. As a short-term construction project, equipment fuel is likely to be the most typical type of hazardous material to be used.

Caltrans' *2024 Standards Specifications Book* contains several specifications that address hazardous materials management. Section 13 includes specifications that: storage areas for hazardous materials and waste be inspected daily, employees be trained in emergency spill cleanup procedures and be present when hazardous materials are unloaded, hazardous materials use be minimized, vehicles fueling and maintenance occur away from

stormwater facilities and drainage courses, materials be stored to protect them from weather events, waste (including liquid waste) be appropriately stored and protected, vehicle and equipment fueling and maintenance be limited to designated areas with fueling facilities fitted with automatic shutoff control, etc. Caltrans will require project contractors to meet these specifications, all of which are designed to prevent and/or limit potential for release of hazardous materials.

As described in the *Air Quality Report for the Eastbound Right Turn Lane at State Route 156 and The Alameda* (Illingworth & Rodkin 2024), prior to the mid-1980s, lead was commonly added to gasoline. As a result, lead was emitted as a component of motor vehicle exhaust. Soil sampling along many roadways has found that concentrations of lead exceed applicable thresholds for classification as a hazardous material. This phenomenon known as "aerially deposited lead" is widespread. Because State Route 156 was built prior to the phaseout of lead as a gasoline additive, elevated concentrations of lead may be present in the soil along the highway margin, including the project site. Prior to construction, a soil investigation would be conducted to determine whether aerially deposited lead has affected soils that would be excavated as part of the project. The investigation for aerially deposited lead would be performed in accordance with Caltrans' Lead Testing Guidance Procedure. The analytical results would be compared against applicable hazardous waste criteria. Based on analytical results, the investigation would provide recommendations regarding management and disposal of affected soils in the project area. The provisions of a variance granted to Caltrans by the California Department of Toxic Substances Control on September 22, 2000 (or any subsequent variance in effect when the Project is constructed) regarding aerially deposited lead would be followed.

Given the discussion above, potential impacts from routine transport, use, or disposal of hazardous materials and from potential release of aerially deposited lead would be less than significant.

c. While the project site is within ¼ mile of San Juan School, the project has minimal potential to result in release of hazardous materials, particularly highly acute hazardous materials as described in item "a-b" above. This potential impact would be less than significant.

d. The following lists of hazardous materials sites/conditions were reviewed:

- Hazardous Materials Waste and Substances Sites from the Department of Toxic Substances Control EnviroStor Database (California Department of Toxic Substances Control 2024);
- Solid Waste Disposal Sites Identified by Water Board with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit (California Environmental Protection Agency 2024a);
- "Active" Cease and Desist Order and Cleanup and Abatement Orders from Water Board (California Environmental Protection Agency 2024b); and

- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by the Department of Toxic Substances Control (California Environmental Protection Agency 2024c).

The project site is not located on or immediately near any hazardous materials site/condition reported on these lists. Therefore, the project would not create a significant associated hazard to the public or the environment.

e. The project site is not located within an airport land use plan boundary or within two miles of a public or private airport.

f. The proposed project is designed to improve access to a site approved for development with a gas station and other ancillary uses. The project serves to enhance circulation safety. As a short-term construction activity, the project would not have a permanent effect on emergency access or emergency response.

g. The project site is not located in a state responsibility area or a wildfire hazard area (CalFire 2024) and does not include structures or facilities for human habitation. Therefore, the project would expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

10. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
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:				
(1) Result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
(2) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
(3) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
(4) Impede or redirect flood flows?	☐	☐	☐	☒
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Comments:

a. Construction activities would involve soil disturbance associated with demolition, site preparation and grading activities. Delivery, handling and storage of construction materials and wastes; and construction equipment use and maintenance could result in spills of oil, grease, or related pollutants. Improper handling, storage, disposal of fuels and materials or improper cleaning of machinery also are potential sources of water pollution associated with construction activities.

Under post-project conditions, the project would increase impervious surface area. Storm water runoff from the site would carry urban pollutants such as oil, grease and sediment from the roadway surface into storm water facilities that would be construction/modified as part of the project. Unless runoff is appropriately pretreated, it could degrade the quality of downstream water bodies into which the runoff is discharged.

Under the Federal Clean Water Act, Caltrans is required to control discharges of pollutants during construction of projects on the state highway system and under permanent project conditions. The U.S. Environmental Protection Agency is responsible for implementing the Clean Water Act. All such discharges must be permitting through the National Pollutant Discharge Elimination System (NPDES). At the state level, the State Water Resources Control Board is responsible for implementing the NPDES program.

The State Water Resources Control Board issued a Statewide Stormwater NPDES Permit and Waste Discharge Requirements to Caltrans to regulate stormwater and non-stormwater discharges from Caltrans properties and facilities, and discharges from operating and maintain the State highway system. The Caltrans NPDES permit contains three basic requirements: 1) Caltrans must comply with the requirements of a Construction General Permit; 2) Caltrans must implement a year-round program in all parts of the State to effectively control stormwater and non-stormwater discharges; and 3) Caltrans stormwater discharges must meet water quality standards through implementation of permanent and temporary best management practices and other measures.

Caltrans water pollution control manuals provide direction on how to prepare a Storm Water Pollution Prevention Plan (SWPPP) and meet waste discharge requirements. A SWPPP specifies the best management practice measures that must be implemented by contractors that construct Caltrans projects to reduce water pollution. Caltrans has developed and obtained the State Water Resources Control Board approval of numerous best management practices that are to be specified in a SWPPP for preventing water pollution. Section 13, Water Pollution Control, in Caltrans *2024 Standards Specifications Book* includes specifications for preventing, controlling, and abating water pollution within the framework of a SWPPP.

With the uniformly applied regulations summarized above and detailed direction for how contractors are to implement the regulations on a project-specific basis, the proposed project would have a less-than-significant impact from substantially degrading water quality.

b. The proposed project would not create long-term demand for groundwater. Water will be required during the 60-day construction period, with groundwater likely being the source of supply. However, the temporary demand would not substantially decrease groundwater supplies and would not interfere with sustainable management of the groundwater basin. The small increase in impervious surface area created by the project would not substantially impair groundwater recharge.

c. **Erosion/Siltation.** As described in Section 7, Geology and Soils under item "b" and in item "b" above, the project contractor will be required to prepare and implement a SWPPP. A major function of the SWPPP is to minimize erosion of exposed soil surfaces for the purpose of avoiding sedimentation of drainage facilities and downstream water features. The SWPPP will include best management practices for this purpose. Given this fact and the fact that less than one acre of land will be subject to grading and surface disturbance, the project would not result in substantial potential for soil erosion – the impact would be less than significant.

Surface Runoff – Flooding and Storm Water Facilities Capacity. The project would result in a nominal net increase impervious surface area. Stormwater runoff from the site would increase under post-project conditions, but the volume increase would not be substantial. The project includes improvements to existing storm drainage facilities and new storm drainage facilities that will be designed to accommodate the change in runoff volumes such that flood hazard impacts onsite and offsite would be less than significant, as would the potential for runoff volumes to exceed the design capacity of existing/planned facilities.

See item "a" above regarding potential for discussion of the potential for the project to create polluted runoff.

Impede or Redirect Flood Flows. The site is within a flood hazard zone as mapped by then Federal Emergency Management Agency (Flood Insurance Rate Map Number 06069C0158D). However, the project does not include vertical improvements with the potential to block or impede flood flows.

d. The project site is not in a tsunami or seiche zone. As noted above, the site is within a flood hazard zone. The project does not involve permanent storage or use of (hazardous) materials with the potential to have acute public health or safety or environmental impacts in the event the site was to flood and such materials released. Urban pollutants such as oils, grease and sediment that are common on the surface of roadways would be carried in floodwater, but these pollutants would not be considered a substantial risk to public health or safety or have a substantial impact on environmental quality. The volume of released materials would be minimal given the small increase in impervious surface area that would be created.

e. See item "a" above. The project would not impede implementation of a groundwater sustainability plan. As described in item "a" above, required implementation of construction and post-construction water quality control plans and associated best management practices is required to minimize potential water quality degradation. Projects that conform to State Water Resources Control Board regulations, as would the proposed project, are not considered to conflict with water quality control plans.

11. LAND USE AND PLANNING

Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Physically divide an established community?	☐	☐	☐	☒
b.	Cause any 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?	☐	☐	☐	☒

Comments:

a. The project is a minor widening of a short segment of an existing state highway. It would not divide an established community.

b. As described in several sections of this initial study, the project must be constructed consistent with a range of local and Caltrans specifications adopted to reduce environmental impacts. The project is being proposed to implement an approved land use project. Consequently, it would not conflict with a land use plan under which the original project was entitled.

12. MINERAL RESOURCES

Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Result in loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b.	Result in the loss of availability of a locally important mineral resource recovery site delineated in a local general plan, specific plan, or other land-use plan?	☐	☐	☐	☒

Comments:

a-b. San Juan Bautista General Plan EIR Map 4.11-1 shows that there are no existing mineral resources within the city limits or sphere of influence. Therefore, implementation of the project would not result in the loss of availability of a known or locally important mineral resource recovery site.

13. NOISE

Would the project result in:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
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 in applicable standards of other agencies?	☐	☐	☒	☐
b.	Generation of excessive ground-borne vibration or ground borne noise levels?	☐	☒	☐	☐
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, expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Comments:

a. Noise impacts of the project were evaluated in the *Noise Assessment for the SR 156 / The Alameda Roadway Widening Project* (Illingworth & Rodkin 2024) ("noise assessment"). Information presented here is referenced from the noise assessment, which is included in Appendix F.

The proposed project will not be a permanent source of noise. Consequently, the noise analysis focuses on potential short-term noise effects during the two-month construction process, with all construction assumed to occur during daylight hours. Noise impacts could be significant if construction phase noise intensity at sensitive receptors in the immediate project area would exceed permissible levels. Changes in traffic noise levels at the nearby noise sensitive residential uses under operating conditions are also evaluated.

Construction Equipment Noise Intensity and Caltrans Equipment Noise Standard. Caltrans' Construction Emissions Tool (Cal-CET) was used to estimate the equipment required to construct the project. The project was modeled as a "Traffic Safety & Operations" project type with several "default" phases. Ancillary equipment that would be used for a period of 10 hours or less during any phase was not modeled as the infrequent use of such equipment would not substantially contribute to the overall construction noise levels. Noise levels were calculated at a distance of 50 feet for each of four construction activity phases: 1) roadway excavation and removal; 2) base/subbase/ imported borrow; 3) paving; and 4) traffic signalization, signage, striping, and painting. Noise model includes representative sound levels for the most common types and

approximate uses of construction equipment Noise generated by construction equipment drops off at a rate of 6 dB per doubling of distance from the noise source. Average noise levels for each phase (expressed in dBA (L_{eq}) were 84, 83, 77, and 83, respectively. Refer to Appendix F for reference to noise level/intensity definitions.

Construction noise would mostly be of concern where heavy construction would be concentrated for extended periods of time in areas adjacent to noise-sensitive receptors, where noise levels from individual pieces of equipment are substantially higher than ambient conditions, or when construction activities would occur during noise-sensitive early morning, evening, or nighttime hours. The latter would not occur, as all construction is assumed to occur during daylight hours.

Per Section 14-8.02, Noise Control, of Caltrans' *2024 Standard Specifications*, construction noise should not exceed 86 dBA Lmax at 50 feet from the job site from 9:00 p.m. to 6:00 a.m. This is assumed to be the applicable noise level standard for construction equipment noise. Noise assessment Table 1, Construction Noise Levels by Phase at 50 Feet, (Appendix F) shows that Construction Noise Levels by Phase between 50 and 1,000 feet, that no individual piece of construction equipment would generate noise that exceed this threshold and that the average noise level per phase would also be below this level. The threshold assumes a worst case where construction would occur at night.

With reference to the information in the *404-408 The Alameda Fuel Station, Convenience Store and Quick Serve Restaurant Project Initial Study/Mitigated Negative Declaration* (Hatch Mott McDonald 2016), the noise assessment concludes that maximum instantaneous noise levels along the highway are estimated to range from 80 to 90 dBA L_{max}. Daytime hourly average noise levels are estimated to range from 71 to 76 dBA L_{eq} based on the typical relationship between daily average noise levels and daytime hourly average noise along similar type roadways.

Based on the information presented above, the project would not exceed the applicable noise standard threshold of significance. Nor would construction noise levels be expected to exceed existing maximum instantaneous noise levels produced by vehicle traffic on the highway.

Temporary Noise Effects at Nearby Sensitive Receptors. Noise assessment Table 2, Construction Noise Levels by Phase at Nearest Receptors, shows the average construction noise levels at adjacent/nearby land uses, including noise sensitive residential and school uses (San Juan School). Exterior noise levels at the closest residential uses to the south could be up to 84 dBA L_{eq}, with exterior noise levels ranging from 66 dBA L_{eq} to 56 dBA L_{eq} at more distant residential and school uses.

The duration of noise exposure at any given noise-sensitive receptor is also considered a variable for determining impact significance. Temporary exposure to noise during the daytime over an approximate two-month construction period would be considered to result in a less-than-significant impact. This finding is based on the reasonable assumption that most people would expect and accept short-term noise associated with a

nearby public works construction project in the public right-of-way assuming the implementation of best management practices. Noise impacts from project construction activities are not expected because construction would be temporary and intermittent and conducted in accordance with Caltrans Standard Specifications, and because existing ambient noise levels are significantly elevated due to traffic noise along State Route 156.

Additional analysis in the noise assessment considers noise impacts at the San Juan School. It concludes that interior noise levels at the school during project construction activity would not exceed 52 dBA L_{eq}, which is a standard contained in Section 216 of the Streets and Highways Code (Freeway Noise in Classrooms).

Operational Traffic Noise Changes. The potential change in traffic noise level at the adjacent residential uses on the south was also investigated based on a review of the changes to the lane geometry of State Route 156 that would occur with the project. The project would result in vehicles operating closer to those residences than under existing conditions. Equivalent lane distances under existing and proposed conditions were calculated and compared to determine the change in noise levels resulting from the project. Traffic noise levels are conservatively estimated to increase by 0.2 dB at the nearest existing residential uses. This minor change would not be noticeable and would result in a less-than-significant impact.

b. Groundborne vibration effects of the project are of concern for their potential to cause structure damage to structures located adjacent to the site on the south. This is particularly true for impacts on the historic Benjamin Wilcox House. Vibration impacts on this structure are described in Section 5, Cultural Resources, under item "a" for both project construction and project operations. Vibration impacts on the Benjamin Wilcox House are described in the *Alameda Right Turn Lane Traffic and Construction Vibration Study* (Charles M. Slater Associates 2020) included in Appendix D. The report references Caltrans 2013 Transportation and Construction Vibration Guidance Manual guidance for vibration impact criteria for several types of buildings. To be conservative, the report assumes the Benjamin Wilcox House can be classified as a "fragile building". Maximum acceptable vibration levels at such structures are 0.1 inch/second for continuous/frequent intermittent sources such as construction activities and traffic on the new right turn lane, which would travel closer to the home than under existing conditions. Mitigation measure CUL-1 is included to ensure that potential vibration impact impacts on this structure are less than significance by prohibiting use of vibratory rollers, which produce substantial ground vibration, during construction.

There are structures located along the southern edge of the State Route 156 right-of-way that are closer to planned construction activities than is the Benjamin Wilcox House. These are shown in Figure 2, Aerial Photograph. The structures are about 15 feet from the closest edge of the project site. They are not considered to be historic resources with the same sensitivity as the Benjamin Wilcox House. Vibration from construction activities and from traffic on the new turn land has potential to impact these structures. The 2013 Caltrans Vibration Guidance Manual identifies a vibration limit of 0.25 inches/second peak particle velocity for historic and some old buildings, which is considered to be the appropriate classification for the subject buildings. Vibration levels are highest close to

the source and then attenuate with increasing distance from the source. Other buildings in the project vicinity that are located further from the site (minimum of 50 feet) would be exposed to vibration levels below 0.25 inches/second peak particle velocity and are not considered further.

Table 1, Construction Vibration Levels by Phase, shows estimated vibration levels at varying distances for a range of construction equipment. The information illustrates that with the exception of vibratory rollers, no other equipment type is expected to generate vibration at 10 or more feet from the source that exceeds the 0.25 inches/second peak particle velocity threshold above which damage to the subject structures is possible. Using vibratory rollers within 25 feet of the structures could result in damage to them. Implementation of the following mitigation measure would avoid the potential impact.

Table 1 Construction Vibration Levels by Phase

		Peak Particle Velocity (in/sec) at Various Distances from Construction Equipment				
Phase	Construction Equipment	5 feet	10 feet	15 feet	20 feet	25 feet
Roadway Excavation & Removal	Dozer	0.523	0.244	0.156	0.114	0.089
	Excavator	0.446	0.208	0.133	0.097	0.076
	Grader	0.446	0.208	0.133	0.097	0.076
	Roller	1.233	0.575	0.368	0.268	0.210
	Front-end Loader	0.446	0.208	0.133	0.097	0.076
	Scraper	0.446	0.208	0.133	0.097	0.076
	Tractor/Loader/Backhoe	0.018	0.008	0.005	0.004	0.003
Base/Subbase/ Imported Borrow	Grader	0.446	0.208	0.133	0.097	0.076
	Roller	1.233	0.575	0.368	0.268	0.210
	Scraper	0.446	0.208	0.133	0.097	0.076
Paving	Paver	0.018	0.008	0.005	0.004	0.003
	Paving Equipment	0.018	0.008	0.005	0.004	0.003
	Roller	1.233	0.575	0.368	0.268	0.210
	Sweeper	0.018	0.008	0.005	0.004	0.003
Traffic Signalization/ Signage/ Striping/ Painting	Aerial Lift	0.018	0.008	0.005	0.004	0.003
	Drill Rig	0.523	0.244	0.156	0.114	0.089
	Mixer	0.018	0.008	0.005	0.004	0.003
	Air Compressor	0.018	0.008	0.005	0.004	0.003
	Paver	0.018	0.008	0.005	0.004	0.003
	Gradall	0.018	0.008	0.005	0.004	0.003
	Skid Steer Loader	0.018	0.008	0.005	0.004	0.003
	Tractor/Loader/Backhoe	0.018	0.008	0.005	0.004	0.003
	Trenching Machine	0.446	0.208	0.133	0.097	0.076

SOURCE: Michael Thill, Illingworth & Rodkin, Email Communication with EMC Planning Group. November 9, 2024.
NOTE: Values in red font denote exceedance of the 0.25 inch/second peak particle velocity criterion.

Mitigation Measure

N-1 The contractor shall include a work specification in construction documents for the project that use of vibratory rollers within 25 feet of the existing structures located along the western edge of the project site along State Route 156 be prohibited.

c. The project does not include habitable structures or uses at which people would congregate. It is not located within the vicinity of a private airstrip or an airport land-use plan or within two miles of a public airport or public-use airport.

14. POPULATION AND HOUSING

Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
b.	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Comments:

a-b. The project is not population inducing or growth inducing, nor would it displace people or housing.

15. PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a. Fire protection?	☐	☐	☐	☒
b. Police protection?	☐	☐	☐	☒
c. Schools?	☐	☐	☐	☒
d. Parks?	☐	☐	☐	☒
e. Other public facilities?	☐	☐	☐	☒

Comments:

a-e. The proposed project is a short-term construction activity. It is non-population and non-employment generating, and does not include habitable structures or public or municipal facilities. Consequently, the project would not create permanent demand for public services. Caltrans will be responsible for maintaining the improvements once they are constructed.

16. RECREATION

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

Comments:

a-b. The proposed project is non-population and non-employment generating. It would create demand for new or increase demand for existing recreational facilities. Consequently, the proposed project does not include recreational facilities or require construction or expansion of recreational facilities.

17. TRANSPORTATION

Would the project:

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

Comments:

a. The project is neither population nor employment generating. It would not increase demand for public transit, pedestrian facilities or bicycle facilities. The project is proposed to ensure operational conditions at the State Route 156/The Alameda intersection meet Caltrans' level of service standards for the intersection. The project design includes a bicycle lane and signalization improvements to support pedestrian and bicycle safety at the intersection.

b. The proposed project is a transportation project being implemented to satisfy a mitigation measure/condition of approval associated with the city's approval of the 404-408 The Alameda gas station project in 2016. The measure was required to ensure acceptable operational conditions at the State Route 156/The Alameda intersection. The proposed project does not inherently increase capacity of the highway system such that it has potential to induce vehicle travel and vehicle miles traveled. Rather, it modifies the distribution of existing traffic and traffic that will be generated by the approved project. Therefore, it would have no impact on vehicle miles traveled.

c. The proposed project is being designed to Caltrans standards. Those standards are designed to ensure safety of the traveling public and to ensure safe traffic operations at the State Route 156/The Alameda intersection. Caltrans has reviewed the proposed project plans to ensure that they meet its safety specifications, for instance, the necessary length of the right-turn deceleration lane is based on southbound highway travel speeds. The project does not include design features that would increase circulation hazards, nor would it introduce circulation conditions that are incompatible with existing and cumulative circulation conditions on the highway or at the State Route 156/The Alameda intersection.

d. The proposed project would not impair emergency access. It is designed to ensure that Caltrans' operational standards at the State Route 156/The Alameda intersection are met, thereby maintaining adequate access for and movement of emergency vehicles.

18. TRIBAL CULTURAL RESOURCES

Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
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, or 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:				
(1)	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources code section 5020.1(k), or	☐	☐	☐	☒
(2)	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.	☐	☐	☐	☒

Comments:

a. Pursuant to AB 52, on November 7, 2024, the city sent out an offer for tribal consultation to the Amah Mutsun Tribal Band. As of December 20, 2024, no request for consultation had been received. The city subsequently reinitiated the tribal consultation process by sending out notifications to six tribes on February 14, 2025. As of March 16, 2025, the close of the offer for consultation period, none of the six tribes had requested consultation with the city. Therefore, the consultation process is considered complete. See also Section 5, Cultural Resources, for a discussion of historic and unique archaeological resources.

19. UTILITIES AND SERVICE SYSTEMS

Would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☒	☐	☐
b.	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, single-dry and multiple- dry years?	☐	☐	☒	☐
c.	Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
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?	☐	☐	☒	☐

Comments:

a. The project will require that existing storm water drainage facilities within the project site be modified and new facilities installed. The short-term environmental impacts of constructing the project, including the necessary storm drainage facilities, are evaluated throughout this initial study. All potentially significant environmental effects are reduced to less than significant through required conformance to Caltrans' standard specifications and/or by implementation of mitigation measures included in this initial study.

b. As a short-term construction activity, the project will not be a long-term source of water demand. Water will be required for construction activities, but demand would be limited given the limited scope of the project.

c. The proposed project will not be a source of wastewater.

d-e. Solid waste in a variety of forms will be generated during the short-term construction process. The San Benito County Integrated Waste Management Department manages solid waste disposal for waste generated in San Juan Bautista. Waste is typically sent to the John Smith Road Landfill. The landfill was last reported to have a remaining capacity of 1,921,000 cubic yards. Caltrans' *2024 Standard Specifications* include direction for how solid waste from construction sites is to be managed consistent with applicable regulations. The project contractor will be required to implement the project consistent with the applicable specifications.

20. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
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 wildfire?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Comments:

a-d. Per the California Department of Forestry and Fire Protection's "Fire Hazard Severity Zone (FHSZ) Viewer," the project site is not located in or near a state responsibility area or lands classified as very high fire hazard severity zones (CAL FIRE 2024). Consequently, it would not impair emergency response, exacerbate wildfire risk, require constructing fire prevention associated infrastructure, or create post-wildfire risks.

21. MANDATORY FINDINGS OF SIGNIFICANCE

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a.	Does the project 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 an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b.	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	☐	☐	☒	☐
c.	Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Comments:

a. The project has potential to impact several special-status species and waterways. However, these impacts are reduced to less than significant with mitigation measures included in this initial study.

The proposed project has the potential to result in adverse effects to unknown, buried historic resources or unique archaeological resources. Required contractor conformance with performance standards in Caltrans' *2024 Standard Specifications* would reduce this impact to less than significant. If vibratory rollers are used in the construction, vibration from them could adversely impact the historic Benjamin Wilcox House, as described in Section 5, Cultural Resources. Implementation of mitigation measure CUL-1 would reduce this impact to less than significant.

Therefore, the proposed project would not 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 an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory.

b. As a short-term construction project, the environmental effects of the project will also be short term. It is highly unlikely that these short-term effects would combine with short-term effects of other construction project being implemented concurrently in the immediate vicinity to generate significant, cumulative short-term impacts. The project is being proposed to enable the State Route 156/The Alameda intersection to operate at adequate level of service under long-term conditions.

c. Potential short-term impacts of the project do not have the potential to cause substantial adverse effects on humans. Potential public health and safety effects are either less than significant, or would be less than significant with the required conformance of the project contractor to Caltrans' standards and specifications identified in its *2024 Standard Specifications* as described in this initial study.

E. SOURCES

Environmental Setting

Hatch Mott McDonald. 2016. *404-408 The Alameda Fuel Station, Convenience Store and Quick Serve Restaurant Initial Study and Mitigated Negative Declaration.*

Project Description

TL Engineering. 2024. Plans for Construction in San Benito County in San Juan Bautista at the Alameda.

Aesthetics

Caltrans Scenic Highways. https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways, List of eligible and officially designated State Scenic Highways (XLSX). Accessed December 6, 2024.

Agriculture

Google Earth 2024.

Air Quality

California Department of Transportation. 2024. *Standard Specifications*. https://dot.ca.gov/-/media/dot-media/programs/design/documents/2024_stdspecs-locked-a11y.pdf.

Illingworth & Rodkin. 2024. *Air Quality Report for the Eastbound Right Turn Lane at State Route 156 and The Alameda.*

Monterey Bay Unified Air Pollution Control District. 2008. *CEQA Air Quality Guidelines.* February 2008. https://www.co.monterey.ca.us/home/showdocument?id=22559.

Monterey Bay Air Resources District. 2017. *Air Quality Management Plan.* https://www.mbard.org/files/6632732f5/2012-2015-AQMP_FINAL.pdf

Biological Resources

California Burrowing Owl Consortium (CBOC). 1993. *Burrowing Owl Survey Protocol and Mitigation Guidelines.*

California Department of Fish and Wildlife (CDFW). 2024a. *California Natural Diversity Database (CNDDB)* online database. Records of occurrence for San Felipe, Chittenden, Watsonville East, Salinas, Natividad, Mt. Harlan, Prunedale, San Juan Bautista, and Hollister USGS quadrangles. Sacramento, California. Accessed November 2023. https://wildlife.ca.gov/data/cnddb

CDFW. 2012. *Staff Report on Burrowing Owl Mitigation.* State of California Natural Resources Agency.

CDFW. 2018. *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities*. Sacramento, California. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline

CDFW. 2024b. *Biogeographic Information and Observation System (BIOS)* online database. Sacramento, California. Accessed November 2023. http://bios.dfg.ca.gov

CDFW. 2024c. *California Natural Community List*. Sacramento, California. Accessed December 2023. https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities

CDFW. 2024d. *California Essential Habitat Connectivity Project*. Sacramento, California. Accessed December 2023. https://wildlife.ca.gov/Conservation/Planning/Connectivity/CEHC

California Invasive Plant Council (Cal-IPC). 2024. *Cal-IPC Invasive Plant Inventory* online database. Accessed November 2023. https://www.cal-ipc.org/plants/inventory/

California Native Plant Society (CNPS). 2001. CNPS Botanical Survey Guidelines. Sacramento, California. https://www.cnps.org/plant-science/field-protocols-guidelines

California Native Plant Society (CNPS). 2024. *Inventory of Rare and Endangered Plants of California online database.* Records of occurrence for San Felipe, Chittenden, Watsonville East, Salinas, Natividad, Mt. Harlan, Prunedale, San Juan Bautista, and Hollister USGS quadrangles. Sacramento, California. Accessed December 2024. http://www.rareplants.cnps.org

City of San Juan Bautista. City of San Juan Batista 2035 General Plan. November 1, 2015.

City of San Juan Bautista. San Juan Bautista Municipal Code. Updated October 17, 2023. Accessed December 2023. https://www.codepublishing.com/CA/SanJuanBautista/

EMC Planning Group. 2020. *Congdon's Tarplant Focused Survey Results for State Route 156/The Alameda Right Turn Lane Encroachment Permit, City of San Juan Bautista.*

EMC Planning Group. 2024. *Revised Wetland and Waterway Assessment for State Route 156/The Alameda Right Turn Lane Encroachment Permit, City of San Juan Bautista.*

EMC Planning Group. Latest revision: December 2024. *Draft State Route 156/The Alameda Right Turn Lane Encroachment Natural Environmental Study.*

Hatch Mott MacDonald. 2016. *Fuel Station, Convenience Store, and Quick Serve Restaurant (404 The Alameda) Initial Study/Mitigated Negative Declaration*.

Regan Biological and Horticultural Consulting. 2014. *Proposed Gas Station at 404 The Alameda and Highway 156 APN #002-520-012 Biological Assessment.*

U.S. Army Corps of Engineers. 2021. USACE File SPN-2020-00144; State Route 156/The Alameda Right Turn Lane Project Design "No Permit Needed Letter".

U.S. Fish and Wildlife Service (USFWS). 2003. *Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander.*

USFWS 2024a. *Endangered Species Program* online database. Species list for San Benito County. Washington, D.C. Accessed December 2023. http://www.fws.gov/endangered/

USFWS. 2024b. *National Wetlands Inventory* online database. Washington, D.C. Accessed December 2023. http://www.fws.gov/wetlands/

USFWS. 2024c. *Critical Habitat for Threatened and Endangered Species* online mapper. Accessed December 2024. https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77

Cultural Resources

California Department of Transportation. 2024. *Standard Specifications*. https://dot.ca.gov/-/media/dot-media/programs/design/documents/2024_stdspecs-locked-a11y.pdf.

EMC Planning Group. 2020. *Draft Archaeological Survey Report for the State Route 156/The Alameda Right Turn Lane Encroachment Permit*

EMC Planning Group. 2023. *Historical Resources Compliance Report.*

Salter Associates. 2020. *Alameda Right Turn Lane Traffic and Construction Vibration* study.

Energy

Illingworth & Rodkin. 2024. *Air Quality Report for the Eastbound Right Turn Lane at State Route 156 and The Alameda.*

Geology and Soils

California Department of Conservation, California Geologic Survey. Earthquake Zones of Required Investigation. https://maps.conservation.ca.gov/cgs/informationwarehouse/eqzapp/#data_s=id%3AdataSource_4-191fbed9d48-layer-16%3A168. Accessed December 5, 2024.

California Department of Transportation. 2024. *Standard Specifications*. https://dot.ca.gov/-/media/dot-media/programs/design/documents/2024_stdspecs-locked-a11y.pdf.

Chronicle Heritage. 2023. *Paleontological Resource Assessment for the SR156/The Alameda EB Right Turn Land Addition Project*.

San Benito Country GIS Database - Flood Zones and Faults. https://www.arcgis.com/apps/View/index.html?appid=91f5cc156edf4d92bccf7790a589defd. Accessed December 5, 2024.

Greenhouse Gas Emissions

Bay Area Air Quality Management District. 2022. *California Environmental Quality Act Air Quality Guidelines*. https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/ceqa-guidelines-chapter-6-project-climate-impacts_final-pdf.pdf?rev=ce3ba3fe9d39448f9c15bbabd8c36c7f&sc_lang=en

Hazards and Hazardous Materials

California Department of Forestry and Fire Protection. "Fire Hazard Severity Zone (FHSZ) Viewer" https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=988d431a42b242b29d89597ab693d008. Accessed November 19, 2024

California Department of Toxic Substances Control. "Envirostor." https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTESE&site_type=CSITES,FUDS&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29. Accessed on November 21, 2024.

California Department of Transportation. 2024. *Standard Specifications*. https://dot.ca.gov/-/media/dot-media/programs/design/documents/2024_stdspecs-locked-a11y.pdf.

California Environmental Protection Agency. List of solid waste disposal sites identified by Water Board with waste constituents above hazardous waste levels outside the waste management unit (PDF). https://calepa.ca.gov/wp-content/uploads/sites/6/2016/10/SiteCleanup-CorteseList-CurrentList.pd. Accessed on November 21, 2024a.

California Environmental Protection Agency. "List of "active" CDO and CAO from Water Board (MS Excel, 1,453 KB)." https://calepa.ca.gov/sitecleanup/corteselist/. Accessed on November 21, 2024b.

California Environmental Protection Agency. "List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by DTSC." https://calepa.ca.gov/sitecleanup/corteselist/section-65962-5a/?emrc=63f01af3d8806. Accessed on November 21, 2024c.

Illingworth & Rodkin. 2024. *Air Quality Report for the Eastbound Right Turn Lane at State Route 156 and The Alameda.*

Hydrology and Water Quality

California Department of Transportation. 2024. Standard Specifications. https://dot.ca.gov/-/media/dot-media/programs/design/documents/2024_stdspecs-locked-a11y.pdf.

Federal Emergency Management Agency. Flood Insurance Rate Map Number 06069C0158D. https://msc.fema.gov/portal/search?AddressQuery=San%20juan%20bautista%20ca

Mineral Resources

City of San Juan Bautista. August 2015. *Draft City of San Juan Bautista 2035 General Plan – Final Environmental Impact Report*. San Juan Bautista, CA.

Noise

California Department of Transportation. 2024. *Standard Specifications*. https://dot.ca.gov/-/media/dot-media/programs/design/documents/2024_stdspecs-locked-a11y.pdf.

Hatch Mott McDonald. 2016. *404-408 The Alameda Fuel Station, Convenience Store and Quick Serve Restaurant Initial Study and Mitigated Negative Declaration*.

Illingworth & Rodkin. 2024. *Noise Assessment for the SR 156 / The Alameda Roadway Widening Project*.

Michael Thill, Illingworth & Rodkin. November 9, 2024. Email communication with EMC Planning Group.

Salter Associates. 2020. *Alameda Right Turn Lane Traffic and Construction Vibration* study.

Utilities and Service Systems

California Department of Transportation. 2024. Standard Specifications. https://dot.ca.gov/-/media/dot-media/programs/design/documents/2024_stdspecs-locked-a11y.pdf.

CalRecycle. SWIS Facility/Site Activity Detail. https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2151?siteID=2583. Accessed November 9, 2024.

Wildfire

California Department of Forestry and Fire Protection, "Fire Hazard Severity Zone (FHSZ) Viewer,". https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=988d431a42b242b29d89597ab693d008. Accessed November 19, 2024

Mandatory Findings of Significance

California Department of Transportation. 2024. Standard Specifications. https://dot.ca.gov/-/media/dot-media/programs/design/documents/2024_stdspecs-locked-a11y.pdf.

Construction Plan and Landscaping Plan

A

APPENDIX

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SBt	156	2.9–3.1	1	18

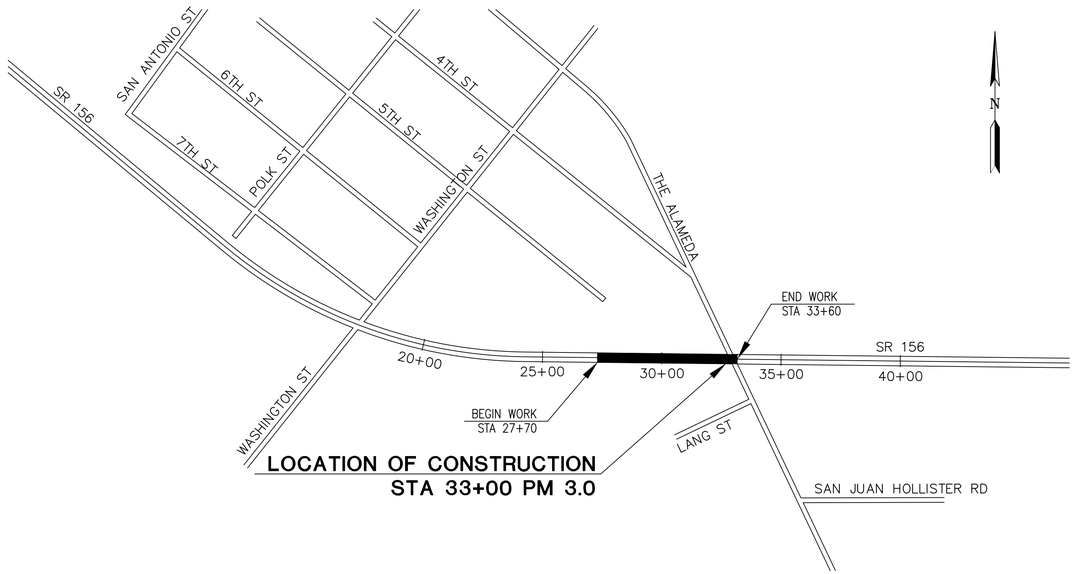
STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PLANS FOR CONSTRUCTION IN SAN BENITO COUNTY IN SAN JUAN BAUTISTA AT THE ALAMEDA

TO BE SUPPLEMENTED BY STANDARD PLANS, DATED 2023

INDEX OF PLANS



PROJECT MANAGER: LEOPOLDO TRUJILLO

DESIGN MANAGER: LEOPOLDO TRUJILLO

CA: 1-800-227-2600 — CALL BEFORE YOU DIG — UNDERGROUND SERVICE ALERT — TWO DAYS BEFORE YOU DIG CALL USA TOLL FREE 811

THE CONTRACTOR SHALL POSSESS THE CLASS(ES) OF LICENSE AS SPECIFIED IN THE CALTRANS ENCROACHMENT PERMIT.

NO SCALE

PROJECT ENGINEER
REGISTERED CIVIL ENGINEER — DATE 6/21/2024

REGISTERED PROFESSIONAL ENGINEER — LEOPOLDO TRUJILLO — No. 63950 — Exp. 09-30-24 — CIVIL — STATE OF CALIFORNIA

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

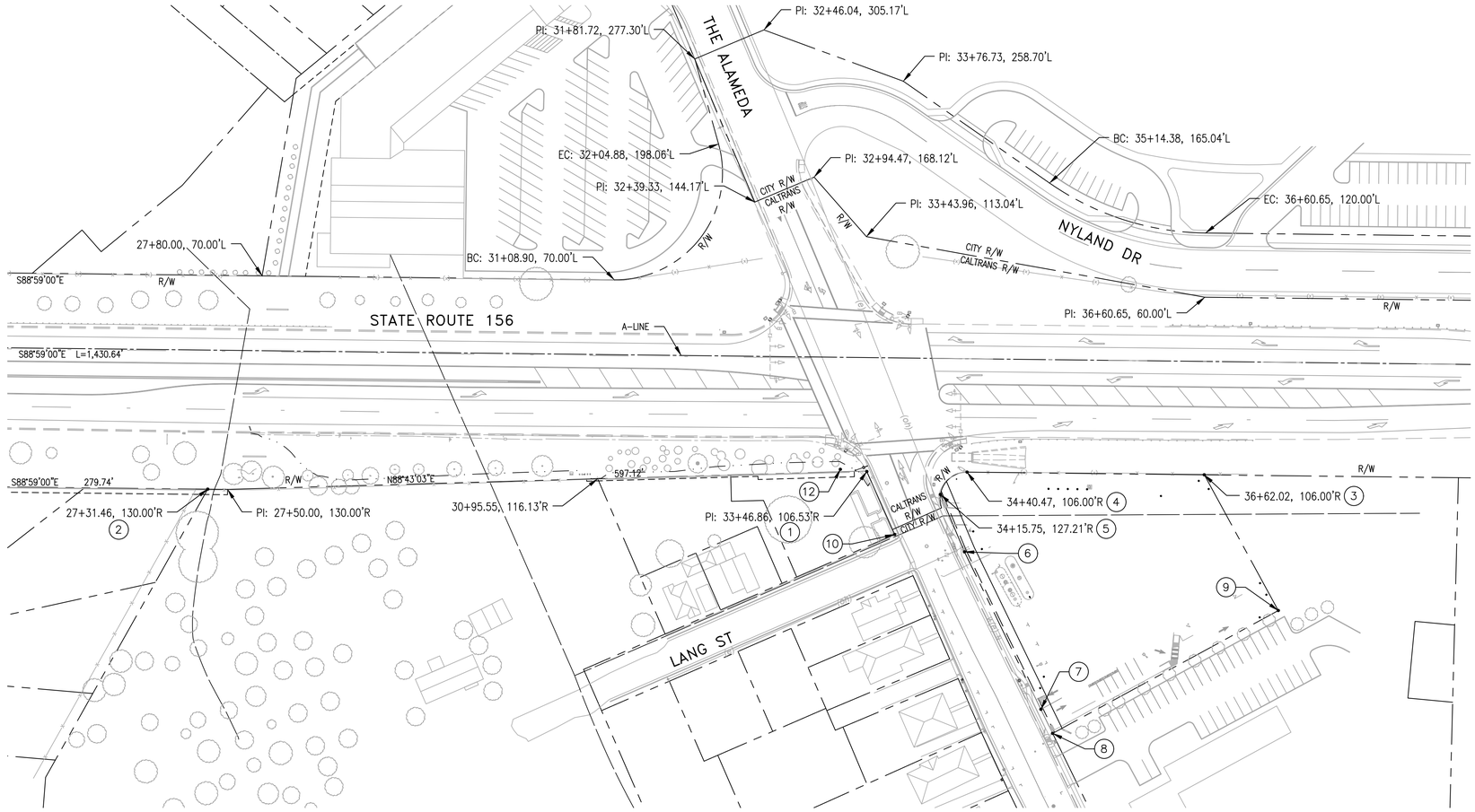
TL ENGINEERING
314 Colville Dr
San Jose, CA 95123
209-829-1553

CONTRACT No.	EA 05-1P3001
PROJECT ID	05-2200-0024-1

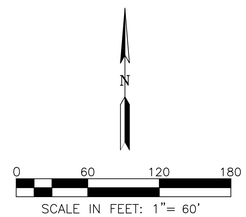
LAST REVISION 06/21/24

DATE PLOTTED => Jun 17, 2024, 10:48am
TIME PLOTTED => Drawing: C:\Users\ltruj\OneDrive - tlengineering.net\Work\22-049 SR 156-The Alameda\Drawings\22-049 SR 156-The Alameda.dwg

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



PROJECT CONTROL POINTS				
POINT #	NORTHING	EASTING	ELEVATION	RAW DESCRIPTION
(1)	2,198,867.1528	5,820,361.3872	212.80	BRASS DISC PLS6875
(2)	2,198,850.6841	5,819,745.7585	–	IRON PIPE LS2550
(3)	2,198,864.0955	5,820,676.5267	211.46	REBAR
(4)	2,198,866.6161	5,820,454.9911	–	IRON PIPE LS7741
(5)	2,198,845.6868	5,820,430.0400	–	IRON PIPE LS7741
(6)	2,198,792.0764	5,820,452.5645	211.77	3/4"ø IRON PIPE RCE24893
(7)	2,198,644.8932	5,820,523.9475	–	3/4"ø IRON PIPE RCE24893
(8)	2,198,622.4114	5,820,534.8861	213.56	REBAR
(9)	2,198,737.2309	5,820,745.6423	–	IRON PIPE LS7741
(10)	2,198,808.3105	5,820,387.3998	211.54	BRASS DISC PLS6875
(12)	2,198,869.2208	5,820,336.6072	211.20	1" IRON PIPE (TAG ILLEGIBLE)



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UNDERGROUND SERVICE ALERT
TWO DAYS BEFORE YOU DIG
CALL USA TOLL FREE 811

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SBt	156	2.9–3.1	2	18

REGISTERED CIVIL ENGINEER — DATE 6/21/2024

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — LEOPOLDO TRUJILLO — 63950 — Exp. 9-30-24 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TL ENGINEERING
314 Colville Dr
San Jose, CA 95123
209-829-1553

HORIZONTAL CONTROL NOTES

1. BENCHMARK ELEVATIONS SHOWN ON THIS PLAN SET ARE BASED ON USGS BENCHMARK PID GU2062, BRASS DISC IN HEADWALL AT THE EAST SIDE OF OLD SAN JUAN HOLLISTER ROAD, NEAR INTERSECTION WITH MISSION VINEYARD ROAD. ELEVATION = 197.3 (NAVD 88).
2. BASIS OF BEARINGS SHOWN ON THIS PLAN SET ARE BASED ON THE SOUTHERLY LINE OF STATE ROUTE 156 AS FOUND MONUMENTED AND RECORDED AS NORTH 88°59'00" EAST, ON BOOK 1 STATE HIGHWAY MONUMENTATION MAPS, PAGE 1, AND BOOK 5 OF PARCEL MAPS, PAGE 87 SAN BENITO COUNTY RECORDS.
3. PORTIONS OF THIS PROJECT SITE LIE WITHIN FLOOD ZONES AO, AH, AND AE ACCORDING TO FIRM 06069C0158D EFFECTIVE 4/16/2009.
4. NO PORTION OF THIS PROJECT LIES WITHIN SEISMIC SPECIAL STUDIES ZONE ACCORDING TO THE STATE OF CALIFORNIA SPECIAL STUDIES ZONE MAP, SAN JUAN BAUTISTA QUADRANGLE OFFICIAL MAP EFFECTIVE 7/1/1974.
5. UNDERGROUND UTILITIES OBSERVED SURFACE EVIDENCE OF UTILITY LINES INCLUDING FACILITIES, APPURTENANCES, AND MARKINGS WHERE USED IN DEPICTING THE LOCATIONS OF UNDERGROUND UTILITIES. BASED ON RESEARCH WITH UTILITY COMPANIES, NO HIGH-RISK UNDERGROUND UTILITIES ARE OBSERVED NEAR THE PROJECT AREA. WHERE ADDITIONAL OR MORE DETAILED INFORMATION IS REQUIRED, THE CONTRACTOR IS ADVISED THAT EXCAVATION MAY BE NECESSARY.
6. THE BOUNDARY LINES SHOWN ON THIS PLAN SET ARE BASED ON MONUMENTS FOUND AND SHOWN ON THIS PLAN RESOLVED ACCORDING TO THE INFORMATION SHOWN ON THE RECORDED MAPS REFERENCED.
7. THE STATIONING AND OFFSETS SHOWN ON THIS PLAN SET ARE BASED ON THE INFORMATION SHOWN ON "DIVISION OF HIGHWAY SURVEY MAP SBt-22-C, S.J.B" RECORDED 10/17/1974 IN BOOK 1 OF STATE HIGHWAY MONUMENTATION MAPS, PAGE 1 SAN BENITO COUNTY.

HORIZONTAL CONTROL PLAN

SCALE: 1" = 60'

HC-1

REVISED BY	DATE REVISED
CELINA LEE	LEOPOLDO TRUJILLO
CALCULATED–DESIGNED BY	CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR	LEOPOLDO TRUJILLO
STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION	Caltrans

LAST REVISION 06/21/24 — DATE PLOTTED => $DATE — TIME PLOTTED => $TIME

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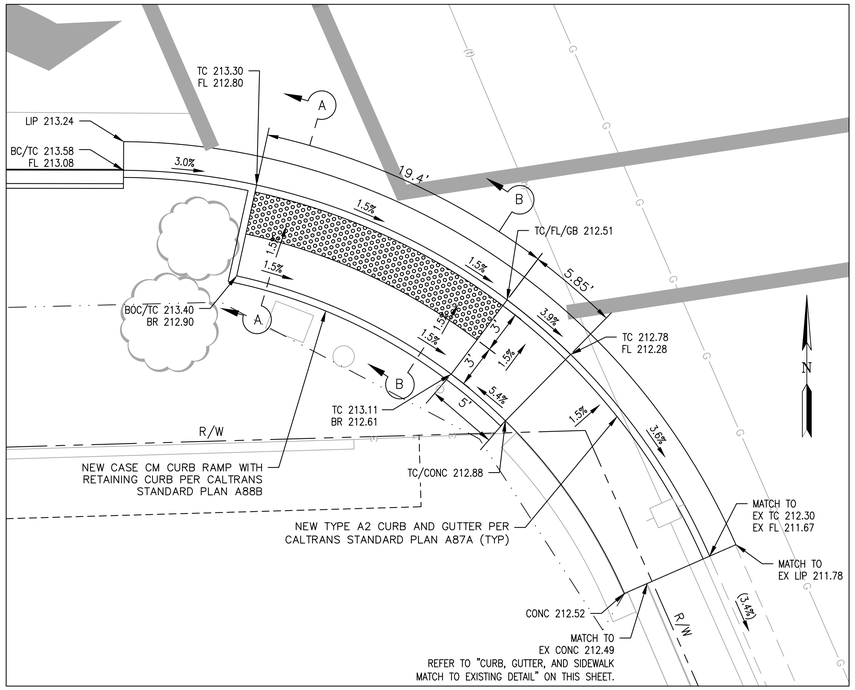
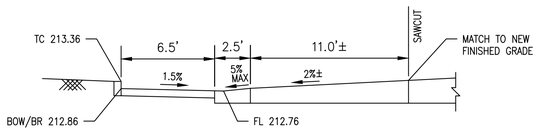
Jun 17, 2024, 10:48am

DIMENSIONS OF PAVEMENT STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.



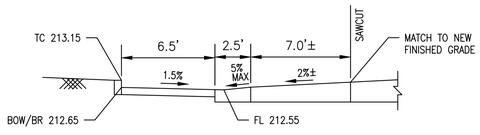
SW CORNER CURB RAMP DETAIL

SCALE: 1"=5'



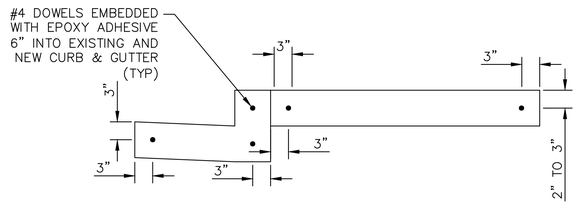
SECTION A–A

SCALE: 1"=5'



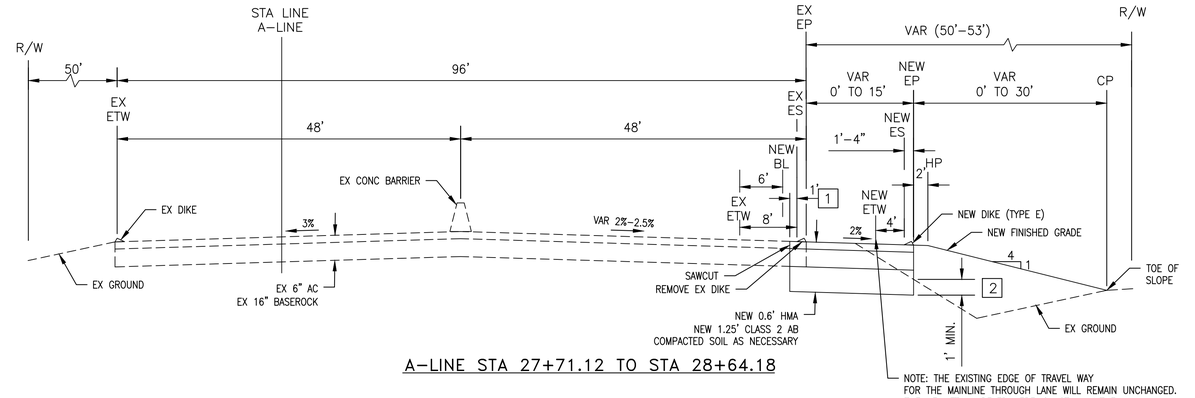
SECTION B–B

SCALE: 1"=5'

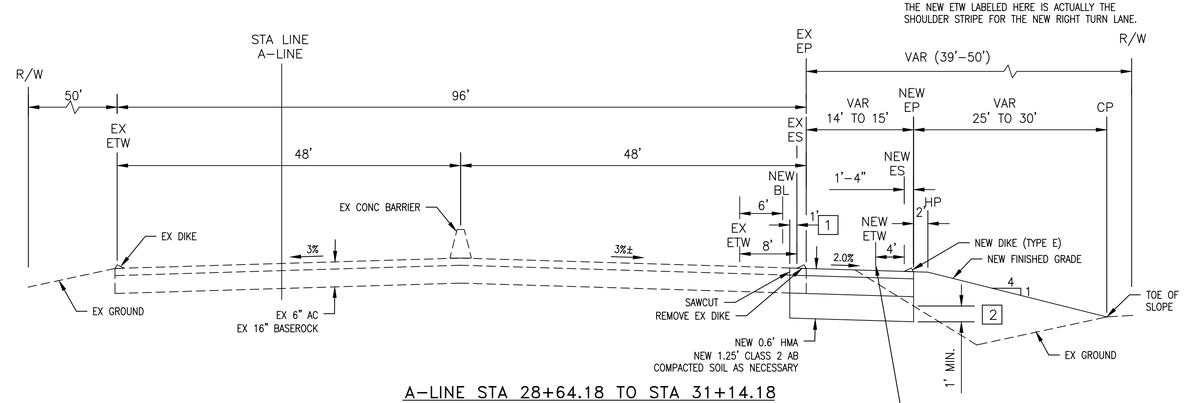


CURB, GUTTER, AND SIDEWALK MATCH TO EXISTING DETAIL

SCALE: NTS



A–LINE STA 27+71.12 TO STA 28+64.18



A–LINE STA 28+64.18 TO STA 31+14.18

SR 156 DESIGN DESIGNATIONS:

- RIGHT TURN LANE ADT (2025) = 4,400
- RIGHT TURN LANE ADT (2045) = 4,900
- RIGHT TURN LANE ADT (2065) = 5,300
- MAINLINE DHV (2025) = 3,250
- MAINLINE DHV (2045) = 3,410
- MAINLINE DHV (2065) = 3,650
- MAINLINE D (2025) = 59%
- MAINLINE D (2045/2065) = 55%
- MAINLINE T = 15%
- RIGHT TURN LANE T = 5%
- RIGHT TURN LANE ESAL (2045) = 444,335
- RIGHT TURN LANE ESAL (2065) = 954,561
- RIGHT TURN LANE T_{I20} = 8.0
- RIGHT TURN LANE T_{I40} = 9.0
- V = 55 MPH (POSTED)

1 SAWCUT 1' FROM FACE OF DIKE AND REMOVE EXISTING DIKE AND PAVEMENT SECTION AS SHOWN.

2 ENSURE TO PROVIDE COMPACTED SUBGRADE AT LEAST 1' BELOW EXISTING GROUND.

TYPICAL SECTIONS AND DETAILS

SCALE: AS SHOWN

X-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SBt	156	2.9–3.1	3	18

REGISTERED CIVIL ENGINEER — DATE 6/21/2024

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — LEOPOLDO TRUJILLO — 63950 — Exp. 9-30-24 — CIVIL — STATE OF CALIFORNIA

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TL ENGINEERING
314 Colville Dr
San Jose, CA 95123
209-829-1553

REVISED BY	DATE REVISED
CELINA LEE	LEOPOLDO TRUJILLO
CALCULATED–DESIGNED BY	CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR	LEOPOLDO TRUJILLO
STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION	Caltrans

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GENERAL UTILITY NOTES

1. EXISTING UNDERGROUND UTILITIES SHOWN ARE BASED ON INFORMATION SUPPLIED BY THE CITY AND/OR LOCAL UTILITY COMPANIES. LOCATIONS OF EXISTING UTILITIES SHOWN ARE APPROXIMATE. CONRACTOR IS RESPONSIBLE FOR DETERMINING EXACT LOCATIONS OF ALL UNDERGROUND AND OVERHEAD UTILITIES.
2. REFER TO SHEET PP–1 FOR PROPOSED IMPROVEMENTS.
3. REFER TO SHEET GD–1 FOR GRADING AND DRAINAGE IMPROVEMENTS INCLUDING STORM DRAIN IMPROVEMENTS.
4. REFER TO SHEETS E–1 AND E–2 FOR TRAFFIC SIGNAL IMPROVEMENTS.

PROJECT NOTES (THIS SHEET)

[1] REMOVE & DISPOSE OF EXISTING DRAIN INLET. NEW STORM DRAIN CULVERT TO BE CONNECTED TO EXISTING CULVERT. REFER TO SHEETS PP–1 AND GD–1 FOR PROPOSED IMPROVEMENTS.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SBt	156	2.9–3.1	5	18

REGISTERED CIVIL ENGINEER — DATE 6/21/2024

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER · LEOPOLDO TRUJILLO · 63950 · Exp. 9-30-24 · CIVIL · STATE OF CALIFORNIA

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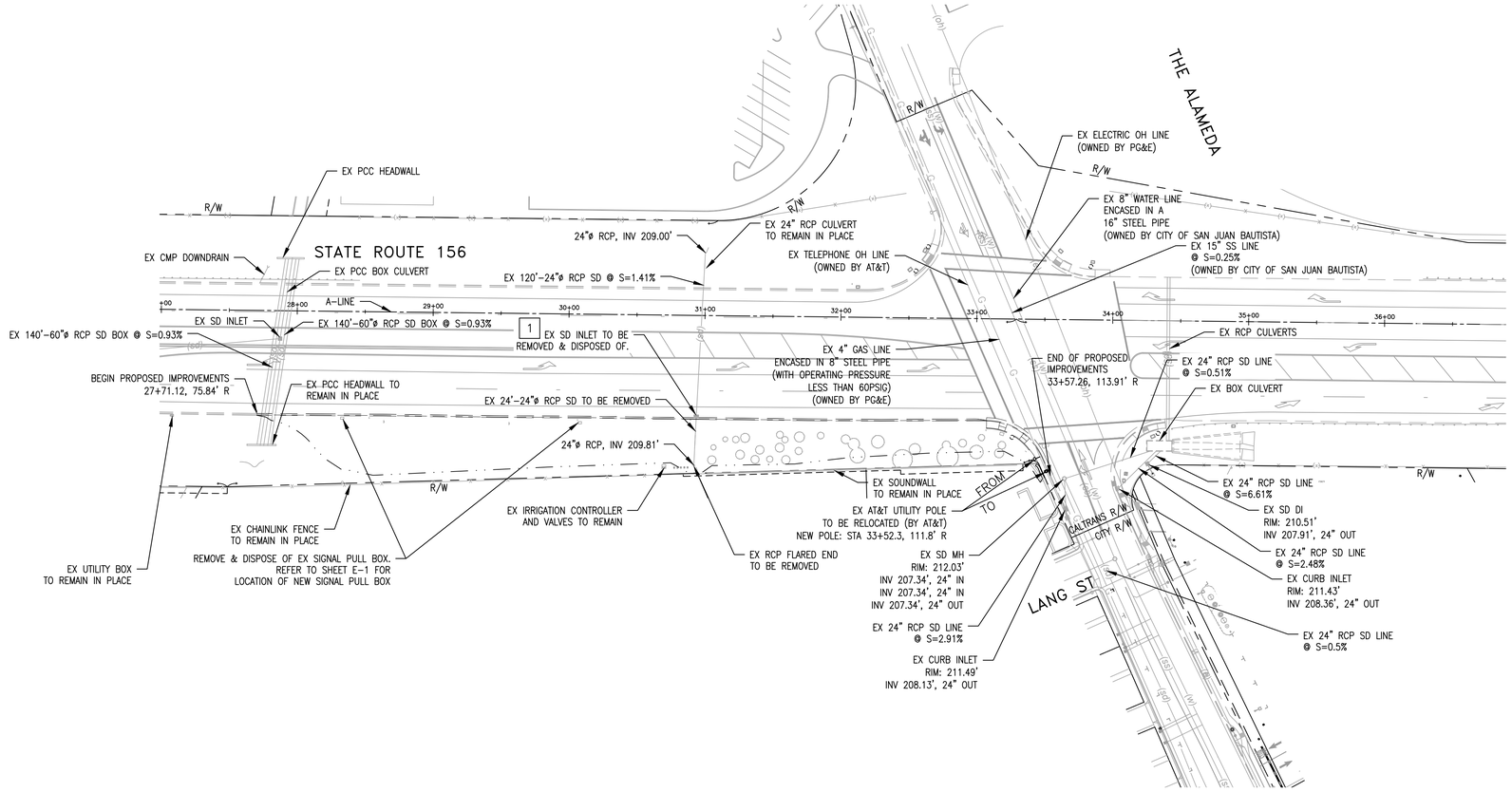

N

0 50 100 150

SCALE IN FEET: 1"= 50'

THIS PLAN IS TO BE USED FOR UTILITY INFORMATION ONLY.

UTILITY PLAN

SCALE: 1" = 50'

U-1

CA: 1-800-227-2600 — CALL BEFORE YOU DIG — UNDERGROUND SERVICE ALERT — TWO DAYS BEFORE YOU DIG — CALL USA TOLL FREE 811

REVISED BY	DATE REVISED
CELINA LEE	LEOPOLDO TRUJILLO
CALCULATED–DESIGNED BY	CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR	LEOPOLDO TRUJILLO

STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION — Caltrans®

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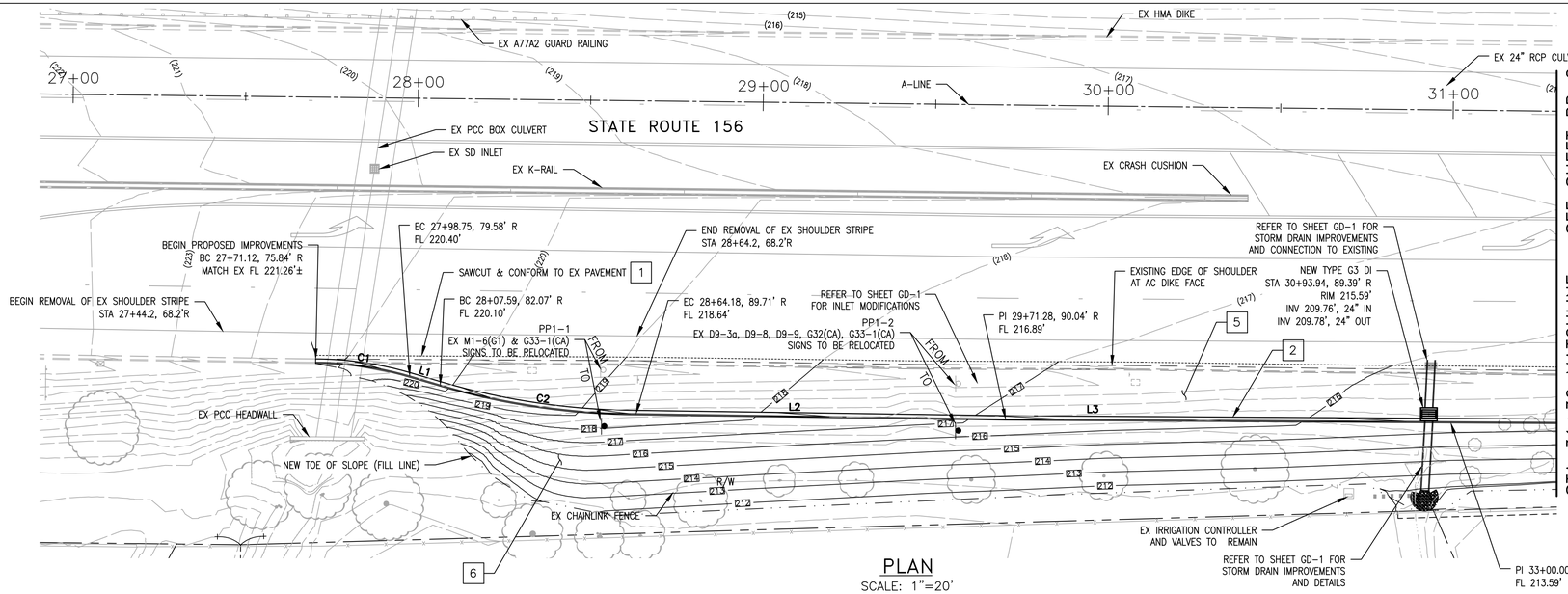
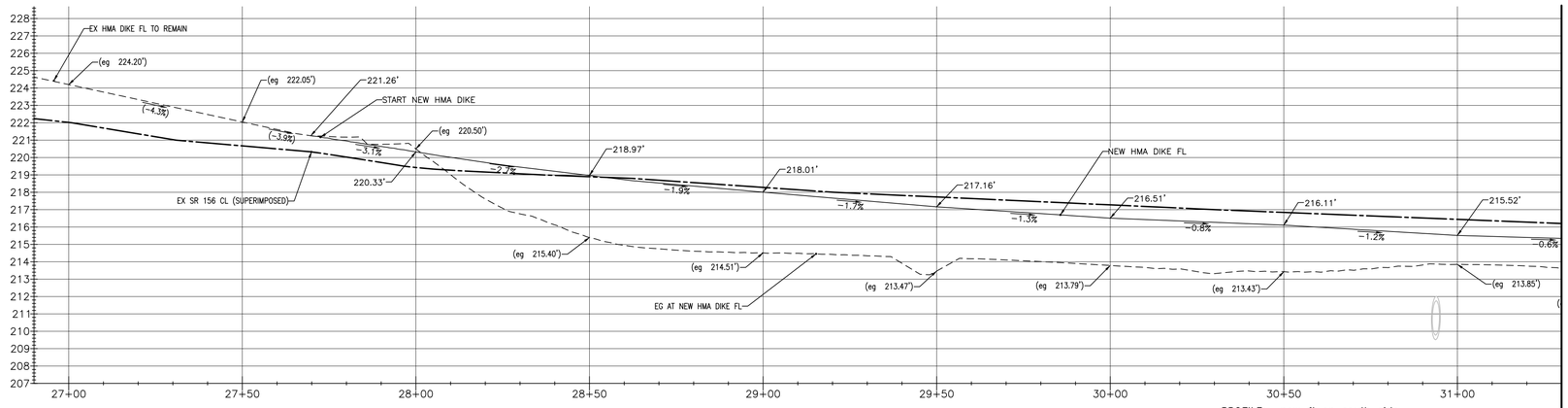
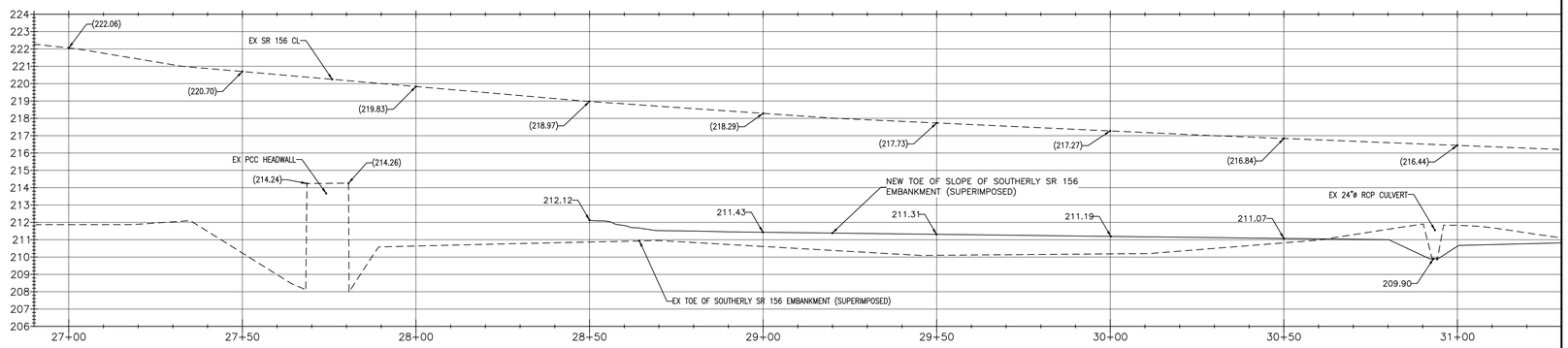


PLAN
SCALE: 1"=20'



PROFILE: new fl on south side
SCALE H: 1"=20' SCALE V: 1"=4'



PROFILE: CL Hwy 156
SCALE H: 1"=30' SCALE V: 1"=6'
SCALE H: 1"=20' SCALE V: 1"=4'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SBt	156	2.9-3.1	6	18

REGISTERED CIVIL ENGINEER — DATE 6/21/2024

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
LEOPOLDO TRUJILLO
63950
Exp. 9-30-24
CIVIL
STATE OF CALIFORNIA

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CA: 1-800-227-2600
USA
UNDERGROUND SERVICE ALERT
TWO DAYS BEFORE YOU DIG
CALL USA TOLL FREE 811

LINE TABLE		
Line #	Length	Direction
L1	9.20'	S73°37'43"E
L2	109.04'	S89°10'21"E
L3	328.72'	S89°38'59"E
L4	14.18'	S89°38'50"E

CURVE TABLE			
Curve #	Radius	Length	Delta
C1	100.00'	27.96'	16°01'01"
C2	204.00'	55.34'	15°32'38"
C3	45.00'	51.86'	66°01'28"

0 20 40 60
SCALE IN FEET: 1"= 20'

REFER TO SHEET PP-2 FOR GENERAL NOTES

PROJECT NOTES (SHEET P-1 & P-2)

1. REMOVE AND DISPOSE OF EXISTING AC DIKE AND PAVEMENT SECTION WITHIN THE SAWCUT LIMITS SHOWN ON THE PLAN.
2. CONSTRUCT NEW TYPE E HMA DIKE PER CALTRANS STANDARD PLAN A87B.
3. CONSTRUCT NEW TYPE A2 CURB AND GUTTER PER CALTRANS STANDARD PLAN A87A. CURB HEIGHT WILL VARY ACROSS THE NEW CURB RAMPS PER THE GRADES SHOWN IN THE CURB RAMP DETAIL ON SHEET X-1.
4. CONSTRUCT NEW CASE C CURB RAMPS PER CALTRANS STANDARD PLAN A88A AND PER THE CURB RAMP DETAIL SHOWN ON SHEET X-1.
5. CONSTRUCT NEW ROADWAY WIDENING IMPROVEMENTS AS SHOWN ON THE TYPICAL SECTIONS INCLUDED ON SHEET X-1.
6. PROVIDE SLOPE GRADING TO MATCH TO EXISTING SOIL GRADES AS SHOWN BY THE CONTOURS ON THIS SHEET AND THE SLOPES SHOWN ON THE TYPICAL SECTIONS ON SHEET X-1.
7. REMOVE EXISTING FENCE POST AND APPROXIMATELY 4.5' OF EXISTING CHAINLINK FENCE. INSTALL NEW CHAINLINK FENCE POST DIRECTLY BEHIND NEW SIDEWALK PER CALTRANS STANDARD PLAN A85. CUT OR REPLACE PORTION OF EXISTING CHAINLINK FENCE AS NECESSARY.
8. RELOCATE EXISTING LANDSCAPE RETAINING WALL DIRECTLY BEHIND NEW SIDEWALK PER THE LIMITS SHOWN ON THE PLAN.

PLAN AND PROFILE
SCALE: 1" = 20'
PP-1

REVISED BY	DATE REVISED
CELINA LEE	LEOPOLDO TRUJILLO

CALCULATED-DESIGNED BY
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR
LEOPOLDO TRUJILLO

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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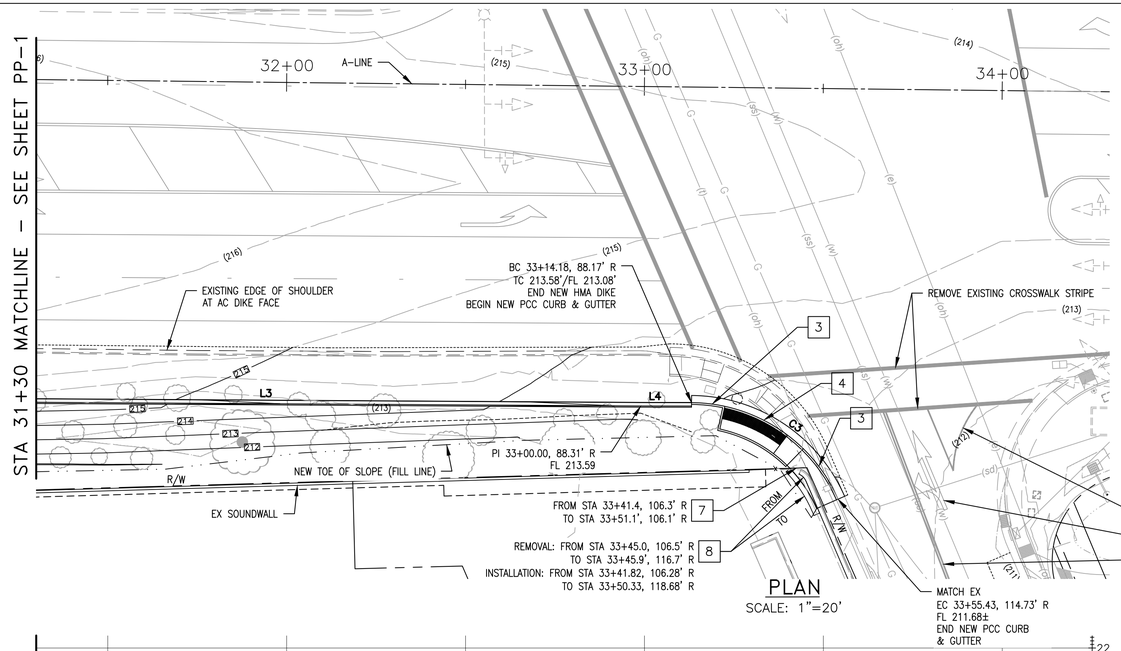
GENERAL NOTES:

1. REFER TO SHEET GD–1 FOR GRADING AND DRAINAGE IMPROVEMENTS INCLUDING STORM DRAIN IMPROVEMENTS.
2. REFER TO SHEET X–1 FOR TYPICAL SECTIONS AND CURB RAMP DETAIL.
3. REFER TO SHEET U–1 FOR UTILITY IMPROVEMENTS. REFER TO SHEET PD–1 FOR SIGNING AND STRIPING IMPROVEMENTS. REFER TO E SHEETS FOR TRAFFIC SIGNAL IMPROVEMENTS.
4. THERE IS POTENTIAL PRESENCE OF AERIALLY DEPOSITED LEAD (ADL) ON THE EXISTING SOIL WITHIN THE PROJECT LIMITS, WHICH MAY RENDER THE SOIL TO BE CLASSIFIED AS CONTAMINATED SOIL, AND THE SOIL WILL NEED TO BE HANDLED AND DISPOSED OF ACCORDINGLY.
5. PRIOR TO THE START OF ANY GRADING WORK/EARTH MOVING OR REMOVAL OF YELLOW TRAFFIC STRIPING/MARKINGS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAMPLING THE SOIL FOR PRESENCE OF ADL. THE CONTRACTOR WILL BE RESPONSIBLE TO DEVELOP AND IMPLEMENT A LEAD COMPLIANCE PLAN (LCP) PREPARED BY A CERTIFIED INDUSTRIAL HYGIENIST. THE LCP SHALL BE REVIEWED AND APPROVED BY CALTRANS PRIOR TO THE START OF ANY EARTH WORK OR REMOVAL OF YELLOW TRAFFIC STRIPING/MARKINGS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HANDLING AND DISPOSING OF ANY SOIL AND/OR REMOVAL OF YELLOW TRAFFIC STRIPING/MARKINGS IN ACCORDANCE WITH THE LCP RESULTS.



PLAN
SCALE: 1"=20'

LINE TABLE		
Line #	Length	Direction
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L3	328.72'	S89°38'59"E
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N
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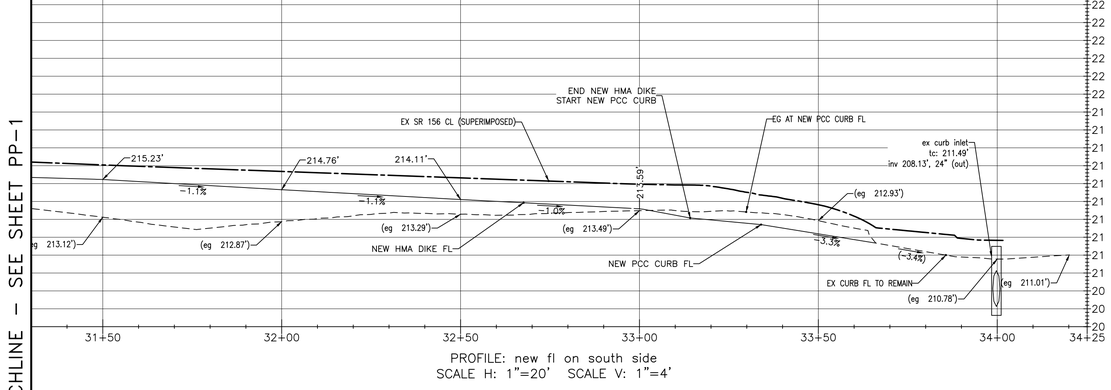
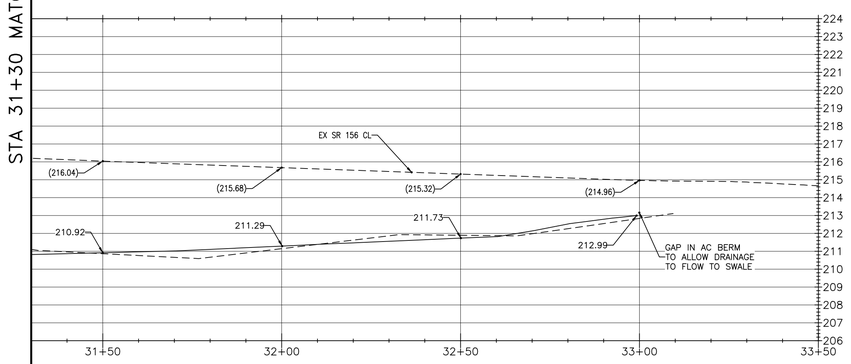
SCALE IN FEET: 1"= 20'



PROFILE: new fl on south side
SCALE H: 1"=20' SCALE V: 1"=4'



PROFILE: CL Hwy 156
SCALE H: 1"=20' SCALE V: 1"=4'

PROJECT NOTES (SHEET P–1 & P–2)

1. REMOVE AND DISPOSE OF EXISTING AC DIKE AND PAVEMENT SECTION WITHIN THE SAWCUT LIMITS SHOWN ON THE PLAN.
2. CONSTRUCT NEW TYPE E HMA DIKE PER CALTRANS STANDARD PLAN A87B.
3. CONSTRUCT NEW TYPE A2 CURB AND GUTTER PER CALTRANS STANDARD PLAN A87A. CURB HEIGHT WILL VARY AT THE CONFORM POINT TO EXISTING CURB & GUTTER PER THE GRADES SHOWN ON THIS SHEET.
4. CONSTRUCT NEW CASE C CURB RAMPS PER CALTRANS STANDARD PLAN A88A AND PER THE CURB RAMP DETAIL SHOWN ON SHEET X–1.
5. CONSTRUCT NEW ROADWAY WIDENING IMPROVEMENTS AS SHOWN ON THE TYPICAL SECTIONS INCLUDED ON SHEET X–1.
6. PROVIDE SLOPE GRADING TO MATCH TO EXISTING SOIL GRADES AS SHOWN BY THE CONTOURS ON THIS SHEET AND THE SLOPES SHOWN ON THE TYPICAL SECTIONS ON SHEET X–1.
7. REMOVE EXISTING FENCE POST AND APPROXIMATELY 4.5' OF EXISTING CHAINLINK FENCE. INSTALL NEW CHAINLINK FENCE POST DIRECTLY BEHIND NEW SIDEWALK PER CALTRANS STANDARD PLAN A85. CUT OR REPLACE PORTION OF EXISTING CHAINLINK FENCE AS NECESSARY.
8. RELOCATE EXISTING LANDSCAPE RETAINING WALL DIRECTLY BEHIND NEW SIDEWALK PER THE LIMITS SHOWN ON THE PLAN.

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CALL USA TOLL FREE 811

PLAN AND PROFILE
SCALE: 1" = 20'
PP–2

REVISED BY	DATE REVISED
.	.

CALCULATED–DESIGNED BY: CELINA LEE
CHECKED BY: LEOPOLDO TRUJILLO
CONSULTANT FUNCTIONAL SUPERVISOR: LEOPOLDO TRUJILLO
STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION: Caltrans

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FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

GENERAL SIGNING AND STRIPING NOTES:

1. ALL STRIPING, PAVEMENT DELINEATION AND TRAFFIC SIGNING WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CALTRANS STANDARD PLANS AND SPECIFICATIONS DATED 2023 AND THE LATEST REVISION OF THE 2014 CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD).
2. THE CONTRACTOR SHALL REMOVE ALL EXISTING STRIPING, PAVEMENT MARKINGS, AND RAISED PAVEMENT MARKERS WHICH CONFLICT WITH WORK SHOWN ON THE SIGNING AND STRIPING PLAN.
3. ALL CONSTRUCTION MATERIALS, SIGNS, STRIPING, PAVEMENT MARKING, AND PAVEMENT MARKERS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
4. THE EXACT LOCATION OF ALL NEW OR RELOCATED SIGNS, STRIPING, AND PAVEMENT MARKINGS SHALL BE MARKED IN THE FIELD BY THE CONTRACTOR AND SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO INSTALLATION.
5. ALL LANE LINE TRAFFIC STRIPES AND PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
6. THE REMOVAL OF ALL EXISTING STRIPING AND PAVEMENT MARKINGS SHALL BE DONE BY WET SANDBLASTING OR OTHER METHOD APPROVED BY THE ENGINEER.
7. ALL NEW CROSSWALK STRIPING SHALL HAVE AN INSIDE DIMENSION OF 10'.

LEGEND

- = EXISTING PAVEMENT STRIPING
- = NEW PAVEMENT STRIPE
- = EXISTING TYPE II ARROW
- = EXISTING TYPE III ARROW
- = EXISTING TYPE IV ARROW
- = EXISTING TYPE VI ARROW
- = EXISTING TYPE VI ARROW
- = NEW TYPE II ARROW
- = NEW TYPE III ARROW
- = NEW BIKE LANE SYMBOL
- = EXISTING ROADSIDE SIGN
- = RELOCATED ROADSIDE SIGN (PROVIDE NEW WOOD POST)
- (#) = CALTRANS STRIPING DETAIL #

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SBt	156	2.9–3.1	9	18

REGISTERED CIVIL ENGINEER — DATE 6/21/2024

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — LEOPOLDO TRUJILLO — 63950 — Exp. 9-30-24 — CIVIL — STATE OF CALIFORNIA

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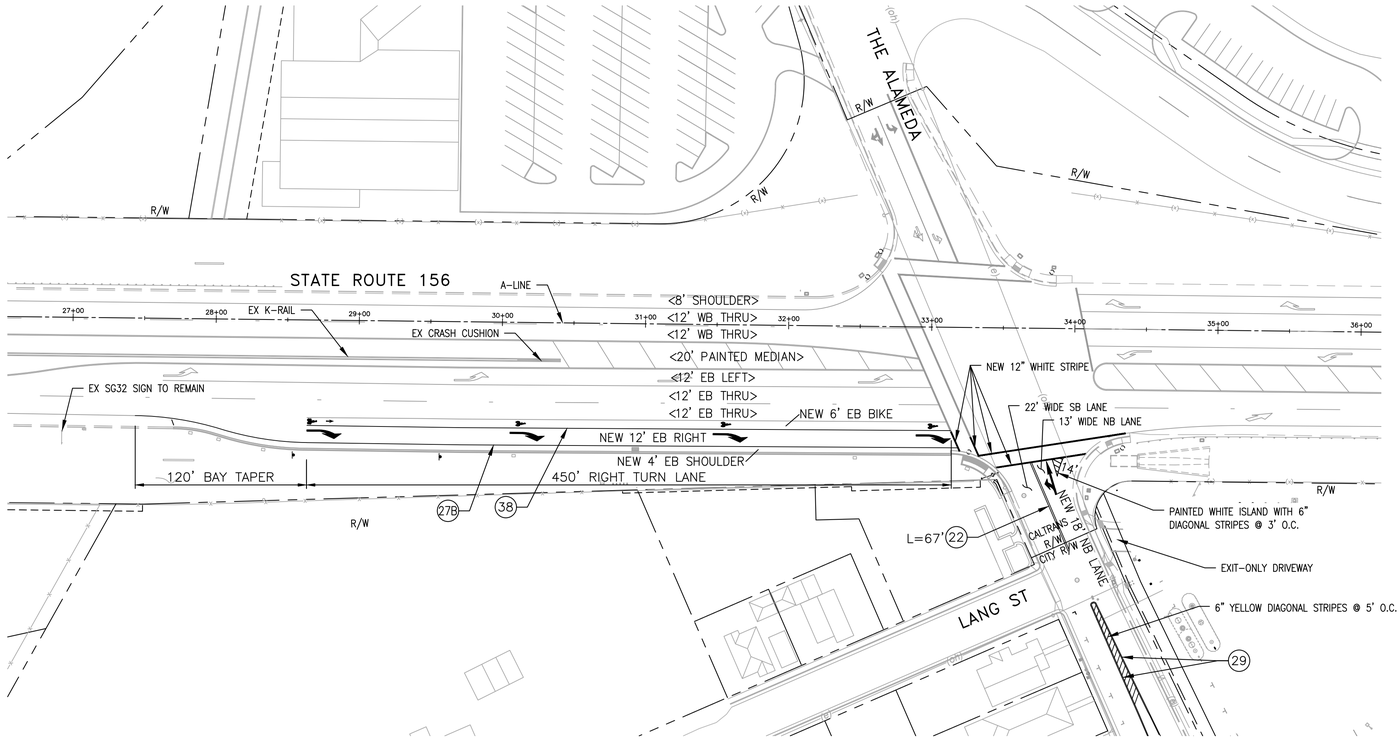

N

0 50 100 150
SCALE IN FEET: 1"= 50'

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-1

STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION | CONSULTANT FUNCTIONAL SUPERVISOR: LEOPOLDO TRUJILLO | CALCULATED–DESIGNED BY: LEOPOLDO TRUJILLO | CHECKED BY: CELINA LEE

DATE REVISED	REVISED BY
.	.

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314 Colville Dr
San Jose, CA 95123
209-829-1553

SIGN QUANTITIES

SHEET NO.	SIGN NO.	CAMUTCD SIGN CODE	PANEL SIZE	LEGEND/SYMBOL COLOR	BACKGROUND COLOR	RETROREFLECTIVE SHEETING TYPE (FOR NEW SIGNS) (ASTM D4956–13)	WOOD POST SIZE AND LENGTH		PSST POST SIZE AND LENGTH		ROADSIDE SIGN		INSTALL SIGN	RELOCATE SIGN	EXISTING SIGN TO REMAIN	REMARKS
			IN X IN				4" X 4"	6" X 6"	2" X 2"	2.5" X 2.5"	ONE POST	TWO POST				
			L X D				LF		LF				EACH	EACH	EACH	
PP–1	PP1–1	M1–6(G1)	24" X 24"	YELLOW	BLUE		13				1			1		COMBINED ON ONE POST
		G33–1(CA)	24" X 6"	WHITE	BLUE									1		
	PP1–2	D9–3A	24" X 24"	WHITE	BLUE			16			1			1		COMBINED ON ONE POST
		D9–8	24" X 24"	WHITE	BLUE									1		
		D9–9	24" X 24"	WHITE	BLUE									1		
		G32(CA)	24" X 6"	WHITE	BLUE									1		
		G33–1(CA)	24" X 6"	WHITE	BLUE									1		

PAVEMENT DELINEATION QUANTITIES

SHEET NO.	STATION	DETAIL NO.	THERMOPLASTIC TRAFFIC STRIPE							TRAFFIC STRIPE TAPE							PAVEMENT MARKER RETROREFLECTIVE			THERMOPLASTIC PAVEMENT MARKING (ENHANCED WET NIGHT VISIBILITY)															BIKE LANE MARKING
																				ARROW						CROSSWALK									
			6" YELLOW	6" WHITE	6" (BROKEN 36–12)	6" (BROKEN 17–7)	6" (BROKEN 8–4)	8" (BROKEN 12–3)	8" WHITE	6" YELLOW	6" WHITE	6" (BROKEN 36–12)	6" (BROKEN 17–7)	6" (BROKEN 8–4)	8" (BROKEN 12–3)	8" WHITE	TYPE D	TYPE G	TYPE RY	TYPE I (10'–0")	TYPE II	TYPE III	TYPE I	TYPE VI	TYPE VII	12" WHITE	12" YELLOW	WHITE (PIANO)	YELLOW (PIANO)	LIMIT LINE	YIELD LINE	SYMBOL	WORDS	
			LF							LF							EA			SQFT						LF				LF		SQFT		
PD–1	24+44 TO 34+36	22	134														8																	
	24+44 TO 34+36	24	90																															
	24+44 TO 34+36	27B		620																														
	24+44 TO 34+36	29	360														10																	
	24+44 TO 34+36	38							450									20																	
TOTAL			584	620					450								18	20			45	168				200					952			8

ROADWAY DEMOLITION ITEMS

SHEET NO.	STATION	ROADWAY EXCAVATION	AC DIKE	CURB & GUTTER	SIDEWALK AND CURB RAMP	STORM DRAIN INLET
		CY	LF	LF	SF	EA
PP–1 & PP–2	24+44 TO 34+36	260	540			1
PP–2	33+14 TO 33+56			70	386	
TOTAL		260	540	70	386	1

MINOR CONCRETE & EARTHWORK

SHEET NO.	STATION	SIDEWALK	CURB RAMP	CURB & GUTTER (TYPE A2)	DRAIN INLET (TYPE G3)	24" RCP STORM DRAIN PIPE	24" RCP FLARED END	EARTH WORK
		SF	EA	LF	EA	LF	EA	CY
PP–1 & PP–2	24+44 TO 34+36	96	2	52	1	16	1	600
TOTAL		96	2	52	1	16	1	600

PAVING QUANTITIES

SHEET NO.	STATION	HOT MIX ASPHALT (TYPE A)		
		HMA (TYPE A)	AC DIKE (TYPE E)	AGGREGATE BASE (CL II)
		TONS	LF	TONS
PP–1 & PP–2	24+44 TO 34+36	333	540	800
TOTAL		333	540	800

TRAFFIC SIGNAL QUANTITIES

SHEET NO.	STATION	LOOP DETECTOR				SIGNAL HEAD & BACK–PLATE	SIGNAL HEAD MOUNT	RELOCATE LUMINAIRE	RELOCATE PED HEAD	PED HEAD MOUNT	PULL BOX		CONDUCTORS AND CONDUIT	SIGNAL POLES	
		TYPE A	TYPE D	TYPE C (35')	TYPE C (60')						#5	#6		RELOCATE APB POST	SIGNAL POLE (24–3–100–35)
		EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LF	EA	EA
E–1 & E–2	23+00 TO 34+00	4	2	3	2	3	2	1	2	1	5	1	660	1	1
TOTAL		4	2	3	2	3	2	1	2	1	5	1	660	1	1

IRRIGATION & PLANTING ITEMS

SHEET NO.	STATION	SHRUB SPRAYER	IRRIGATION CONTROL VALVE	IRRIGATION LATERAL LINE	CEANOTHUS JOYCE COULTER TREE	TOYON HETEROMELES ARBUTIFOLIA TREE	CARMEL CREEPER CEANOTHUS TREE	HYDROSEED
		EA	EA	LF	EA	EA	EA	SF
IP–1	24+44 TO 34+36	43	4	1,000				
P–1	24+44 TO 34+36				26	26	38	5,000
TOTAL		43	4	1,000	26	26	38	5,000

QUANTITIES PLAN

SCALE: NONE

Q-1

REVISED BY	DATE REVISED
CELINA LEE	LEOPOLDO TRUJILLO
CALCULATED–DESIGNED BY	CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR	LEOPOLDO TRUJILLO

STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION — Caltrans®

LAST REVISION 06/21/24 — DATE PLOTTED => $DATE — TIME PLOTTED => $TIME

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BORDER LAST REVISED 7/2/2010 | USERNAME => DGN FILE => | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT xxxx | PROJECT ID: 05–2200–0024–1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SBt	156	2.9–3.1	13	18

REGISTERED CIVIL ENGINEER — DATE 6/21/2024

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — LEOPOLDO TRUJILLO — 63950 — Exp. 9-30-24 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

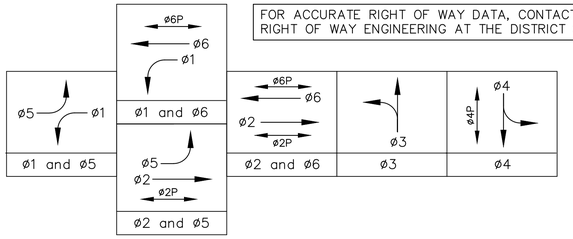
TL ENGINEERING
314 Colville Dr
San Jose, CA 95123
209-829-1553

REVISED BY	DATE REVISED
CELINA LEE	LEOPOLDO TRUJILLO
CALCULATED–DESIGNED BY	CHECKED BY
SUPERVISOR	CONSULTANT FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION	LEOPOLDO TRUJILLO

EXISTING UTILITY DISCLAIMER

UTILITY INFORMATION HAS BEEN INCORPORATED ON THESE PLANS BASED ON AVAILABLE INFORMATION FROM THE CITY AND UTILITY COMPANIES BUT HAS NOT BEEN VERIFIED BY POTHOLING. CONTRACTOR SHALL FIELD VERIFY (AND POTHOLE AS NEEDED) LOCATIONS OF ALL EXISTING UTILITIES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY INSTALLATION WORK AND PRIOR TO ORDERING ANY SIGNAL POLES. ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED/REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER/INSPECTOR AT THE CONTRACTOR'S EXPENSE.

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

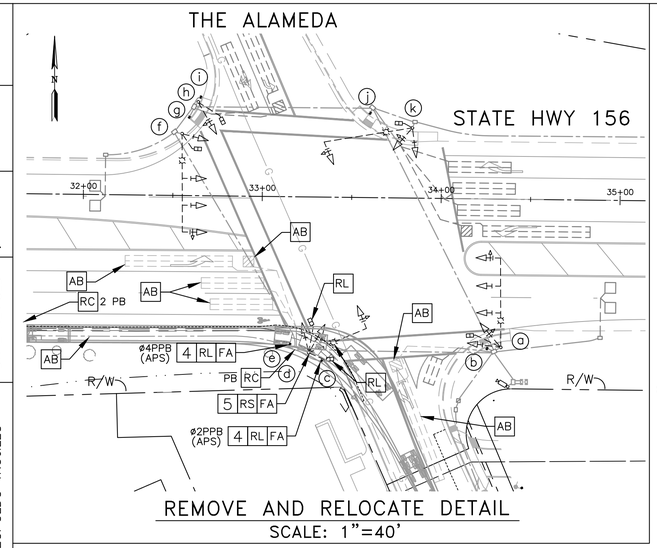


EXISTING/PROPOSED PHASE DIAGRAM

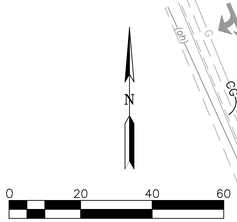
STEADY DEMAND SEQUENCE

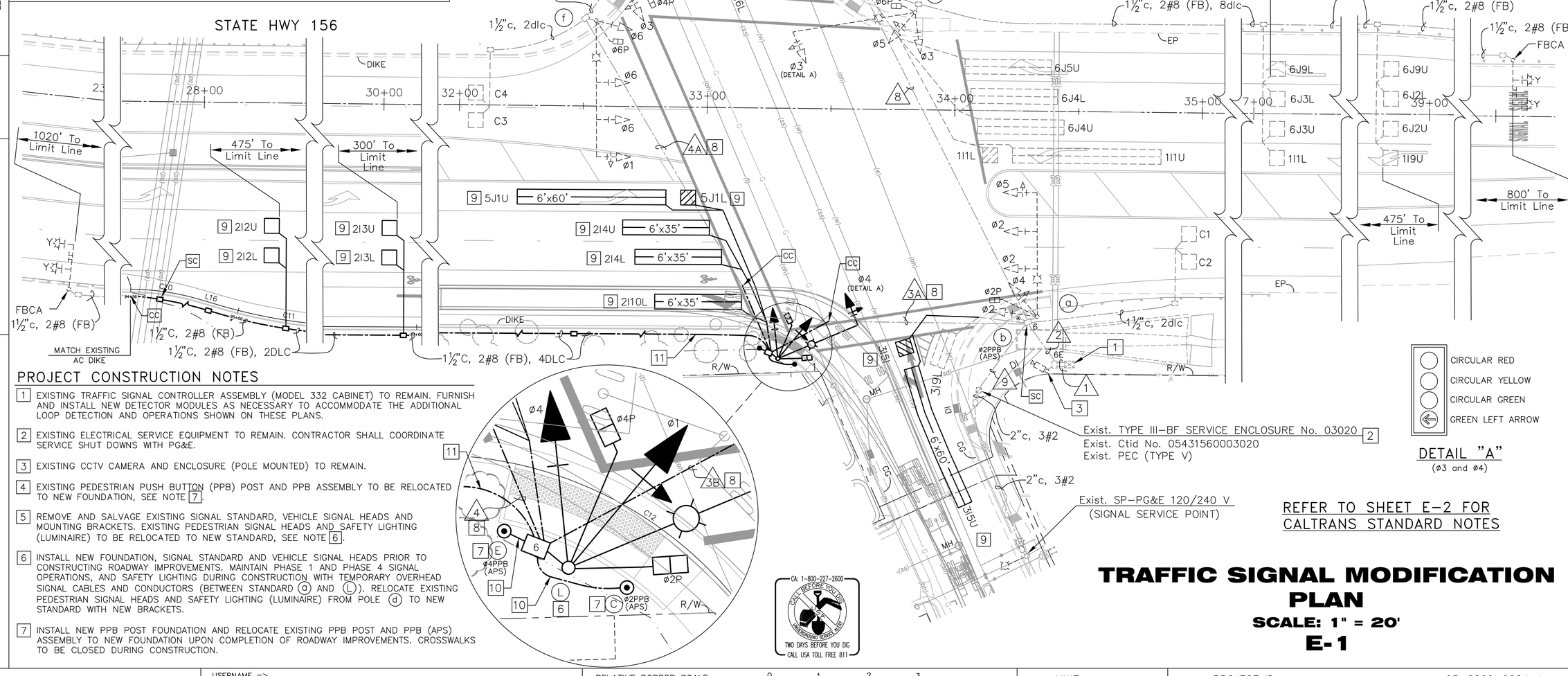
PREVIOUS TRAFFIC SIGNAL PLANS

THE TRAFFIC SIGNAL MODIFICATION BASE PLAN AND EXISTING SIGNAL EQUIPMENT LOCATIONS ARE BASED ON THE 2018 "MODIFYING EXISTING ELECTRICAL SYSTEM" AS–BUILT PLANS AND 1994 "SIGNAL AND LIGHTING" PLANS. THE EXISTING CONDITIONS REPRESENT CURRENT CONDITIONS VERIFIED IN THE FIELD.



REMOVE AND RELOCATE DETAIL
SCALE: 1"=40'





PROJECT CONSTRUCTION NOTES

1. EXISTING TRAFFIC SIGNAL CONTROLLER ASSEMBLY (MODEL 332 CABINET) TO REMAIN. FURNISH AND INSTALL NEW DETECTOR MODULES AS NECESSARY TO ACCOMMODATE THE ADDITIONAL LOOP DETECTION AND OPERATIONS SHOWN ON THESE PLANS.
2. EXISTING ELECTRICAL SERVICE EQUIPMENT TO REMAIN. CONTRACTOR SHALL COORDINATE SERVICE SHUT DOWNS WITH PG&E.
3. EXISTING CCTV CAMERA AND ENCLOSURE (POLE MOUNTED) TO REMAIN.
4. EXISTING PEDESTRIAN PUSH BUTTON (PPB) POST AND PPB ASSEMBLY TO BE RELOCATED TO NEW FOUNDATION, SEE NOTE 7.
5. REMOVE AND SALVAGE EXISTING SIGNAL STANDARD, VEHICLE SIGNAL HEADS AND MOUNTING BRACKETS. EXISTING PEDESTRIAN SIGNAL HEADS AND SAFETY LIGHTING (LUMINAIRE) TO BE RELOCATED TO NEW STANDARD, SEE NOTE 6.
6. INSTALL NEW FOUNDATION, SIGNAL STANDARD AND VEHICLE SIGNAL HEADS PRIOR TO CONSTRUCTING ROADWAY IMPROVEMENTS. MAINTAIN PHASE 1 AND PHASE 4 SIGNAL OPERATIONS, AND SAFETY LIGHTING DURING CONSTRUCTION WITH TEMPORARY OVERHEAD SIGNAL CABLES AND CONDUCTORS (BETWEEN STANDARD (a) AND (L)). RELOCATE EXISTING PEDESTRIAN SIGNAL HEADS AND SAFETY LIGHTING (LUMINAIRE) FROM POLE (d) TO NEW STANDARD WITH NEW BRACKETS.
7. INSTALL NEW PPB POST FOUNDATION AND RELOCATE EXISTING PPB POST AND PPB (APS) ASSEMBLY TO NEW FOUNDATION UPON COMPLETION OF ROADWAY IMPROVEMENTS. CROSSWALKS TO BE CLOSED DURING CONSTRUCTION.

PROJECT CONSTRUCTION NOTES (CONTINUED)

8. EXTEND EXISTING CONDUIT AND INSTALL NEW CONDUCTORS AND DLC AS INDICATED IN THE CONDUCTOR AND CONDUIT SCHEDULE ON E–2.
9. FURNISH AND INSTALL NEW DETECTOR LOOP AND DLC AS INDICATED. REFER TO THE TYP. DETECTOR INSTALLATION DETAIL ON E–2.
10. INSTALL APS CABLE BETWEEN PEDESTRIAN HEAD AND PPB ASSEMBLY.
11. EXTEND EXISTING CONDUIT AND INSTALL NEW CONDUCTORS AND/OR DLC AS SHOWN ON THE PLANS AND AS NOTED ON THE CONDUCTOR AND CONDUIT SCHEDULE ON E–2.

DETAIL "A"
(ø3 and ø4)

- CIRCULAR RED
- CIRCULAR YELLOW
- CIRCULAR GREEN
- GREEN LEFT ARROW

REFER TO SHEET E–2 FOR CALTRANS STANDARD NOTES

TRAFFIC SIGNAL MODIFICATION PLAN

SCALE: 1" = 20'

E-1

CA: 1-800-227-2600 — CALL BEFORE YOU DIG — UNDERGROUND SERVICE ALERT — TWO DAYS BEFORE YOU DIG CALL USA TOLL FREE 811

LAST REVISION	DATE PLOTTED => $DATE
06/21/24	TIME PLOTTED => $TIME

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Jun 17, 2024, 10:48am

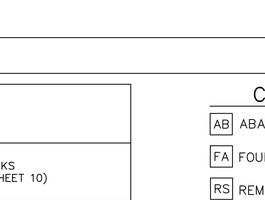
BORDER LAST REVISED 7/2/2010 | USERNAME => | DGN FILE => | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT xxxx | PROJECT ID: 05–2200–0024–1

POLE AND EQUIPMENT SCHEDULE

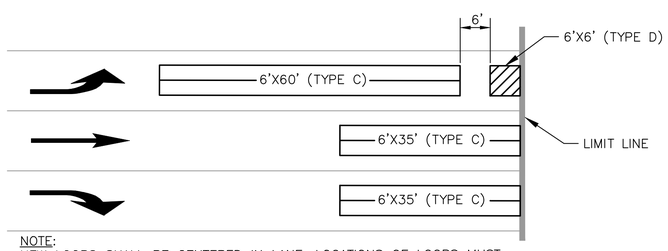
LOC	STANDARD			VEHICLE SIGNAL MOUNTING		PEDESTRIAN SIGNAL		PPB (APS)		LED LUMINAIRE (WATTS)	STREET NAME SIGN (SNS)	SPECIAL REMARKS (PROJECT NOTES ON SHEET 10)
	TYPE	SIG. MAST	LUM. MAST	MAST ARM	POLE	ø	MOUNTING	ø	ARROW			
(a)	29-5-70	50'	15'	MAT MAS MAS	SV-2-TB	2P	SP-1-T	—	—	87 (Rdwy 1)	"The Alameda"	Existing Signal Standard and Equipment
(b)	PPB POST	—	—	—	—	—	—	2P	→	—	—	Existing Signal Standard and Equipment
(C)	PPB POST	—	—	—	—	—	—	2P	←	—	—	RL 4 7 A=18.2' & B=7.8'
(d)	24-3-70	35'	15'	MAT	SV-2-TB	2P 4P	SP-2-T	—	—	87 (Rdwy 1)	—	RS 5 Ex. Signal Standard and Equip.
(E)	PPB POST	—	—	—	—	—	—	4P	→	—	—	RL 4 7 A=8.0' & B=7.8'
(f)	29-5-70	55'	15'	MAT MAS MAS	SV-1-T	6P	SP-1-T	—	—	87 (Rdwy 1)	"The Alameda"	Existing Signal Standard and Equipment
(g)	PPB POST	—	—	—	—	—	—	4P	←	—	—	Existing Signal Standard and Equipment
(h)	1-A	—	—	—	TV-1-T	4P	SP-1-T	—	—	—	—	Existing Signal Standard and Equipment
(i)	PPB POST	—	—	—	—	—	—	6P	→	—	—	Existing Signal Standard and Equipment
(j)	PPB POST	—	—	—	—	—	—	6P	←	—	—	Existing Signal Standard and Equipment
(k)	29-5-70	50'	15'	MAT	SV-2-TB	6P	SP-1-T	—	—	87 (Rdwy 1)	—	Existing Signal Standard and Equipment
(L)	24-3-100	35'	15'	MAT	SV-2-TB	2P 4P	SP-2-T	—	—	87 (Rdwy 1)	—	6 A=15.5' (SR 156) & B=9.4'

GENERAL TRAFFIC SIGNAL NOTES

1. ALL TRAFFIC SIGNAL, ELECTRICAL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) 2023 STANDARD PLANS AND SPECIFICATIONS, THE LATEST REVISION OF THE 2014 CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AND THE PROJECT SPECIAL PROVISIONS.
2. THE TRAFFIC SIGNAL MODIFICATION PLANS ARE ACCURATE FOR ELECTRICAL WORK ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF THE LOCATIONS AND DEPTHS OF EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. UTILITY COMPANIES AND UNDERGROUND SERVICE ALERT (USA, 811 OR 800-227-2600) SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY EXCAVATION WORK WITHIN THE PROJECT AREA. ANY POT HOLING REQUIRED FOR UNDERGROUND UTILITIES SHOWN OR NOT SHOWN ON THE PLANS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. HAND DIG SIGNAL STANDARD (POLE) FOUNDATION HOLES UNTIL CLEAR OF ALL OBSTRUCTIONS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION. ALL UTILITIES AND IMPROVEMENTS THAT BECOME DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED BY THE CONTRACTOR AND AT THE CONTRACTOR'S EXPENSE.
4. THE CONTRACTOR SHALL NOTIFY THE CALTRANS ENGINEER PRIOR TO PERFORMING ANY WORK THAT WILL AFFECT THE EXISTING SIGNAL OPERATIONS (ADVANCE NOTICE OF AT LEAST 3 WORKING DAYS IS REQUIRED). EXISTING TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTAINED DURING CONSTRUCTION.
5. COORDINATE ELECTRICAL SERVICE SHUTDOWNS WITH PACIFIC GAS & ELECTRIC (PG&E) WELL IN ADVANCE OF ANY TRAFFIC SIGNAL CONSTRUCTION.
6. THE CONTRACTOR SHALL OBTAIN APPROVAL FOR THE EXACT LOCATIONS OF ALL NEW TRAFFIC SIGNAL EQUIPMENT PRIOR TO ANY INSTALLATION. LOCATIONS OF THE EXISTING CONTROLLER ASSEMBLY, SERVICE EQUIPMENT, SIGNAL STANDARDS (POLES), PULL BOXES, LOOPS, AND OTHER EQUIPMENT SHOWN ON THE TRAFFIC SIGNAL MODIFICATION PLANS ARE APPROXIMATE.
7. ALL NEW VEHICLE SIGNAL INDICATIONS SHALL BE 12-INCH DIAMETER (WITH BACKPLATES AND VISOR) LIGHT EMITTING DIODE (LED) MODULES (RED, AMBER AND GREEN) AND CONFORM TO CURRENT CALTRANS SPECIFICATIONS. THE SIGNAL MODULE HOUSING, BACKPLATES AND VISORS SHALL BE METAL. BACKPLATES SHALL HAVE A YELLOW RETROREFLECTIVE STRIP PER CALTRANS STD. PLAN ES-4C.
8. ALL NEW PEDESTRIAN SIGNAL INDICATIONS SHALL BE LIGHT EMITTING DIODE (LED) MODULES WITH NUMERICAL COUNTDOWN DISPLAY IN COMBINATION WITH THE STANDARD PORTLAND ORANGE "UPRAISED HAND" AND WHITE "WALKING PERSON" SYMBOLS. THE PEDESTRIAN SIGNAL EQUIPMENT INSTALLED SHALL BE EQUIPPED WITH ACCESSIBLE PEDESTRIAN SIGNAL (APS) FEATURES, INCLUDING AUDIBLE TONES FOR THE CROSSING PHASES, AUDIBLE LOCATING TONES FOR EACH PEDESTRIAN PUSH BUTTON (PPB). THE LED PEDESTRIAN SIGNAL MODULES SHALL CONFORM TO CURRENT CALTRANS SPECIFICATIONS AND CALIFORNIA MUTCD REQUIREMENTS.
9. PEDESTRIAN PUSH BUTTONS SHALL BE ACCESSIBLE PEDESTRIAN SIGNAL (APS) IN CONFORMANCE WITH CALTRANS STANDARD PLAN ES-5C. APS UNITS SHALL BE ADA-COMPLIANT AND SHALL INCORPORATE A TACTILE HORIZONTAL ARROW SYMBOL THAT VIBRATES DURING THE "WALK" INTERVAL OF THE ASSOCIATED PEDESTRIAN PHASE. APS UNITS SHALL PROVIDE A STEADY LOCATING TONE CONSISTING OF LOW-VOLUME CLICKING SOUNDS TO ASSIST VISUALLY-IMPAIRED PEDESTRIANS IN LOCATING THE PUSH BUTTON.
10. ALL NEW TRAFFIC SIGNAL PULL BOXES SHALL BE NO. 5 UNLESS OTHERWISE NOTED ON THE PLANS. MAXIMUM SPACING OF PULL BOXES SHALL BE 200 FEET.
11. ALL DLC CABLES SHALL BE INSTALLED WITHOUT SPLICES.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUCTING ANY/ALL SIGNAL CONTROLLER PROGRAMMING NECESSARY TO PROVIDE A FULLY FUNCTIONAL SIGNAL SYSTEM WITH THE OPERATIONS SHOWN ON THESE PLANS.



POLE LOCATION DETAIL



NOTE:
NEW LOOPS SHALL BE CENTERED IN LANE. LOCATIONS OF LOOPS MUST BE APPROVED BY THE CALTRANS ENGINEER PRIOR TO INSTALLATION.

TYP. DETECTOR INSTALLATION DETAIL

CALTRANS STANDARD NOTES

- AB ABANDON. IF APPLIED TO CONDUIT, REMOVE CONDUCTORS.
- FA FOUNDATION TO BE ABANDONED (COMPLETELY REMOVE).
- RS REMOVE AND SALVAGE EQUIPMENT.
- RL RELOCATE EQUIPMENT AS SHOWN AND NOTED.
- RC EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR.
- CC CONNECT NEW AND EXISTING CONDUIT. REMOVE EXISTING CONDUCTORS AND INSTALL CONDUCTORS AS INDICATED.
- SC SPLICE NEW TO EXISTING CONDUCTORS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SBt	156	2.9-3.1	14	18

REGISTERED CIVIL ENGINEER — DATE 6/21/2024

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — LEOPOLDO TRUJILLO — 63950 — Exp. 9-30-24 — CIVIL — STATE OF CALIFORNIA

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TL ENGINEERING
314 Colville Dr
San Jose, CA 95123
209-829-1553

CONDUCTOR AND CONDUIT SCHEDULE

AWG OR CABLE	CONDUCTOR DESIGNATION	CONDUIT RUN NUMBER — NUMBER OF CONDUCTORS AND CABLES										
		1 E	2 E	3A E	3B N	4A E	4B N	5 E	6 E	7 E	8 E	9 E
#14	Ø 1 SIGNAL	6	6	3(N)	3(N)			3	3		3	
	Ø 2 SIGNAL	3	3									
	Ø 3 SIGNAL	3	3						3	3	3	
	Ø 4 SIGNAL	6	6	3(N)	3(N)							
	Ø 5 SIGNAL	6	6							3	3	
	Ø 6 SIGNAL	3	3					3	3		3	
	Ø 2 PEDESTRIAN	4	4	2(N)	2(N)	(EMPTY)	(EMPTY)					
	Ø 4 PEDESTRIAN	4	4	2(N)	2(N)				2		2	
	Ø 6 PEDESTRIAN	2	2					2	2	2	2	
	Ø 2 PPB (APS)	2	2	1(N)	1(N)							
	Ø 4 PPB (APS)	2	2	1(N)	1(N)				1		1	
	Ø 6 PPB (APS)	1	1						1		1	
	PPB (APS) COMMON	2	2	1(N)	1(N)				1		1	
	SPARES	6	6	3(N)	3(N)			3	3	3	3	
	TOTAL #14	50	50	16(N)	16(N)			11	19	11	22	
#10	SAFETY LIGHTING			2(N)	2(N)			2	2	2	2	2
	CCTV		2									2
	SIGNAL COMMON	2	2	1(N)	1(N)			1	1	1	1	
	TOTAL #10	2	4	3(N)	3(N)			3	3	3	3	4
#8	FLASHING BEACON			2(N)	2(N)					2	2	4
#6	SERVICE TO CONTROLLER	2	2									2
DLC	COUNT LOOPS	4	4					2	2		2	
	Ø 1 DETECTOR	4	4							4	4	
	Ø 2 DETECTOR	7(N)	7(N)	7(N)	7(N)	(EMPTY)	(EMPTY)					
	Ø 3 DETECTOR	2	2									
	Ø 4 DETECTOR	3	3						3		3	
	Ø 5 DETECTOR	2(N)	2(N)	2(N)	2(N)							
	Ø 6 DETECTOR	9	9							9	9	
	TOTAL DLC	22/9N	22/9N	9(N)	9(N)			2	5	13	18	
APS	APS CABLES							1		1		
CONDUIT SIZE		2-3"	3"	3"	3"	3"	3"	1½"	2"	2"	3"	2"
FILL RATIO (%)		22%	45%	15%	15%			26%	24%	40%	25%	16%

(N)= DENOTES NEW CONDUCTORS AND DLC.

E = EXISTING CONDUIT RUN

N = NEW CONDUIT RUN (EXTENDED FROM EXISTING CONDUIT RUN)

TRAFFIC SIGNAL SCHEDULES

SCALE: NONE

E-2

REVISED BY	DATE REVISED
CELINA LEE	LEOPOLDO TRUJILLO

CALCULATED-DESIGNED BY | CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR: LEOPOLDO TRUJILLO

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION 06/21/24 | DATE PLOTTED => $DATE | TIME PLOTTED => $TIME

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FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

SEED MIX 1 (ROADSIDES 3:1 AND FLATTER)

BOTANICAL NAME (COMMON NAME)	PERCENT GERMINATION (MINIMUM)	POUNDS PURE LIVE SEED PER ACRE (SLOPE MEASUREMENT)
ACHILLEA MILLEFOLIUM (WESTERN WHITE YARROW)	70	15.0
ESCHSCHOLZIA CALIFORNICA (CALIFORNIA POPPY)	65	10.0
LASTHENIA CALIFORNICA (CALIFORNIA GOLDFIELDS)	70	5.0
LAYIA PLATYGLOSSA (COASTAL TIDYTIPS)	80	5.0
VULPIA MICROSTACHYS (SMALL FESCUE)	60	10.0

EROSION CONTROL TYPE 1

SEQUENCE	ITEM	MATERIAL		APPLICATION RATE
		DESCRIPTION	TYPE	
STEP 1	HYDROSEED	SEED	MIX 1	45 LB/ACRE
		FIBER	WOOD	2,000 LB/ACRE
		TACKIFIER	PSYLLIUM	150 LB/ACRE

PLANT_LEGEND

PLANT GROUP (SIZE)	PLANT NO.	SYMBOL	BOTANICAL / COMMON NAME	SIZE	WUCALS	QTY	HOLE DIAMETER / DETH INCH	WOOD MULCH (1) BASIN - CY	PACKET FERTILIZER (1) EACH
GROUP B	1		CEANOTHUS 'JOYCE COULTER' JOYCE COULTER LILAC	5 GAL.	LOW	27	(3)	0.15	1
GROUP A	2		CEANOTHUS GRISEUS HORIZONTALIS CARMEL CREEPER	1 GAL.	LOW	37	(3)	0.10	1
GROUP B	3		HETEROMELES ARBUTIFOLIA TOYON	5 GAL.	LOW	38	(3)	0.20	1

EROSION CONTROL TYPE 1
(SEED MIX 1 ROADSIDES 3:1 AND FLATTER)

(1) QUANTITIES SHOWN ARE PER PLANT UNLESS SHOWN AS SQFT OF SQYD APPLICATION RATES

(2) WOOD MULCH MUST BE TREE BARK MULCH

(3) SUFFICIENT TO RECEIVE ROOTBALL AND FERTILIZER AND ROOT PROTECTOR IF REQUIRED

LEGEND

= EXISTING VEGETATION

= EXISTING TREES TO BE REMOVED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SBt	156	2.9–3.1	11	18

REGISTERED CIVIL ENGINEER — DATE 05–01–24

PLANS APPROVAL DATE

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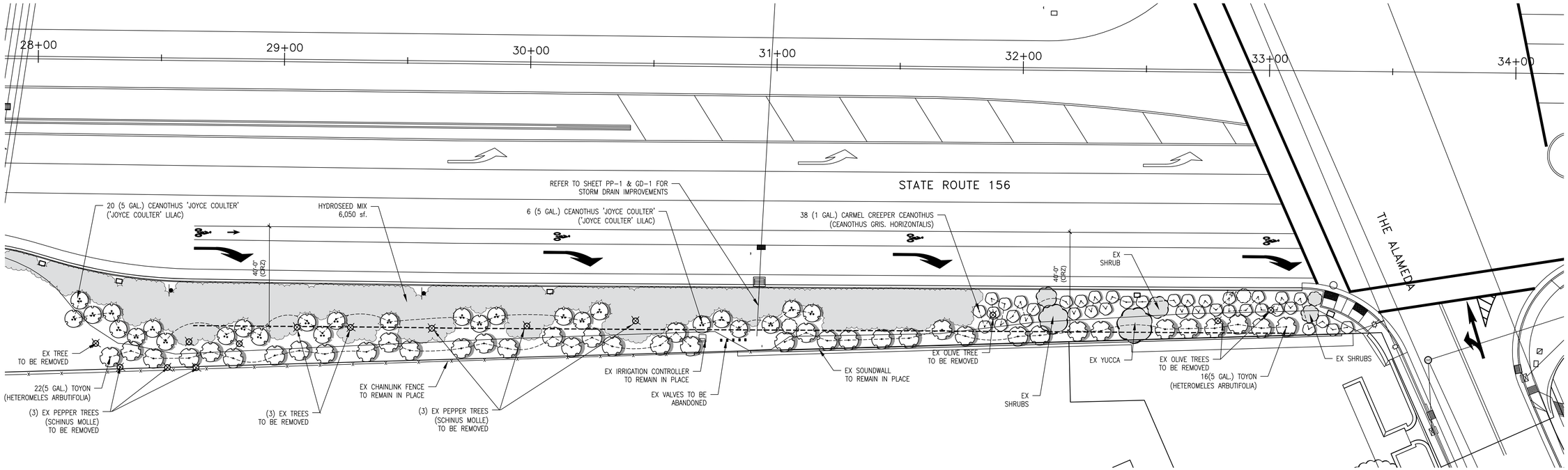
LICENSED LANDSCAPE ARCHITECT — KAREN JONES AITKEN — No. 2239 — Exp. 8–31–25 — STATE OF CALIFORNIA



PLANTING PLAN

SCALE: 1" = 20' PL-1

CALCULATED–DESIGNED BY: CELINA LEE
CHECKED BY: LEOPOLDO TRUJILLO
CONSULTANT FUNCTIONAL SUPERVISOR: LEOPOLDO TRUJILLO
STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION
Caltrans®

REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => $DATE | TIME PLOTTED => $TIME
03–08–21

BORDER LAST REVISED 7/2/2010 | USERNAME => | DGN FILE => | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT xxxx | PROJECT NUMBER & PHASE 0000000000

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R:\text (R:\text)

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

IRRIGATION_LEGEND

SYMBOL	DESCRIPTION	QTY	PSI
Q H	12" POP-UP SPRINKLER 30 PSI REGULATED	9 & 34	30

SYMBOL	DESCRIPTION	QTY
	CAM COUPLERS -BE MANUFACTURED OF POLYPROPYLENE AND BE ABLE TO WITHSTAND A WORKING PRESSURE OF 100 PSI.	4
	WYE FILTER	4
- - - - -	IRRIGATION LATERAL LINE PVC SCHEDULE 40 3/4" (ON-GRADE)	380.0 L.F.
	IRRIGATION LATERAL LINE PVC SCHEDULE 40 1" (ON-GRADE)	184.5 L.F.
	IRRIGATION LATERAL LINE PVC SCHEDULE 40 1 1/2" (ON-GRADE)	458.5 L.F.

CCA LATERAL LINE NO.
GPM
QUANTITY OF SPRINKLER ASSEMBLIES
CCA - 1 - 13 - 380

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SBt	156	2.9–3.1	12	18

05–01–24
REGISTERED CIVIL ENGINEER — DATE

PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
KAREN JONES AITKEN
No. 2239
Exp. 8–31–25
STATE OF CALIFORNIA

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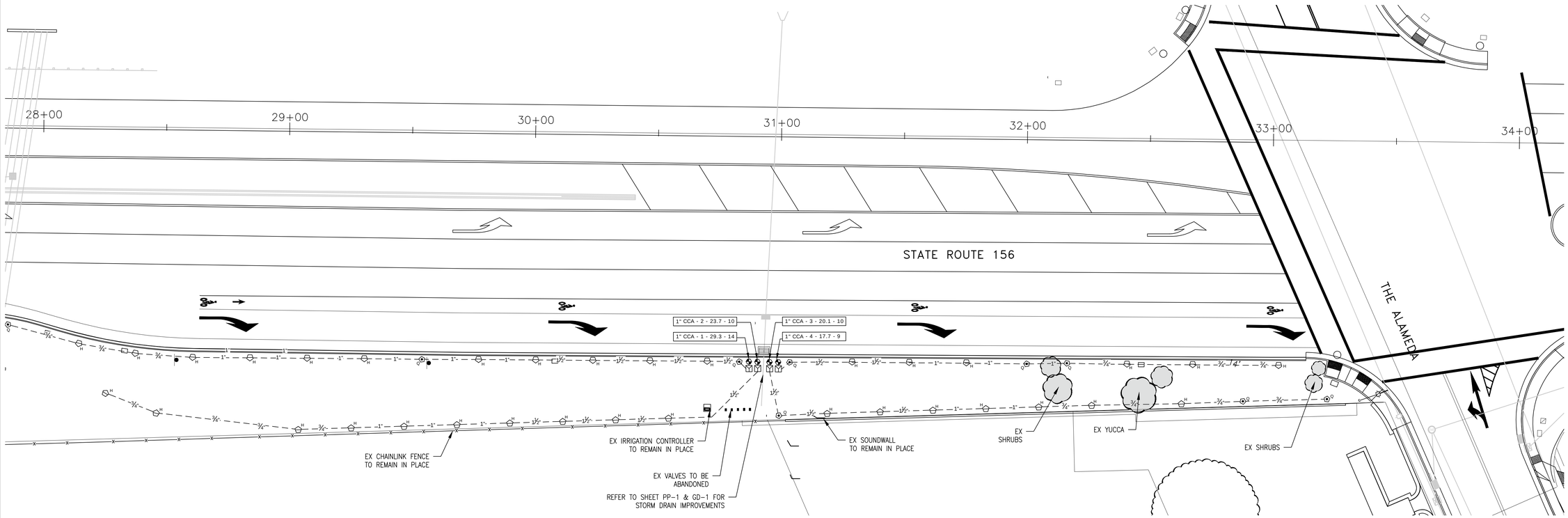

IRRIGATION PLAN
SCALE: 1" = 20'

IP-1

CELINA LEE — CALCULATED–DESIGNED BY
LEOPOLDO TRUJILLO — CHECKED BY
LEOPOLDO TRUJILLO — CONSULTANT FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION
Caltrans

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BORDER LAST REVISED 7/2/2010 | USERNAME => DGN FILE => | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT xxxx | PROJECT NUMBER & PHASE 0000000000

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R1ext (R1ext)

NOTES:
1. VALVE BOX IDENTIFICATION IS NOT REQUIRED.
2. FOR CAM COUPLER ASSEMBLY USE OF REINFORCING BAR AND HOSE CLAMPS IN PLACE OF THRUST BLOCK IS OPTIONAL.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SBt	156	2.9–3.1	12	18

05–01–24
REGISTERED CIVIL ENGINEER — DATE

PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
KAREN JONES AITKEN
No. 2239
Exp. 8–31–25
STATE OF CALIFORNIA

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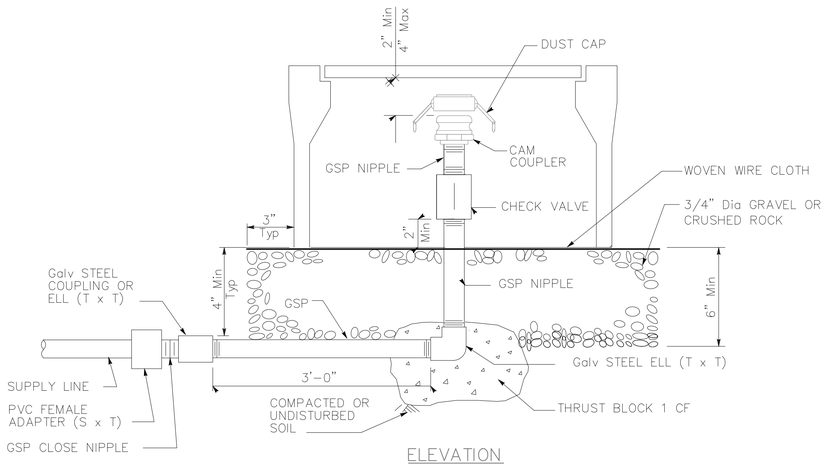
IRRIGATION SPRINKLER SCHEDULE

SYMBOL	ITEM DESCRIPTION	SPRINKLER TYPE	OPERATING PRESSURE	DISCHARGE RATE (+/–5%)	PRESSURE COMPENSATING	REMARKS
			psi	GPM		
H	12" POP–U SPRINKLER HALF (H)	SPRINKLER	30	2.0	Req.	PROVIDE SPRINKLER MIN. 15' MAX. 17' APART ADJUST ARC & RADIUS TO PREVENT OVER SPRAY.
Q	12" POP–U SPRINKLER QUARTER (Q)	SPRINKLER	30	1.9	Req.	

TEMPORARY IRRIGATION SYSTEM QUANTITIES

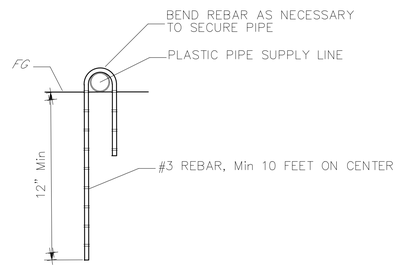
SHEET No.	TEMPORARY IRRIGATION SYSTEM					
	(N) CAM COUPLER ASSEMBLY	(N) WYE STRAINER ASSEMBLY	(N) PLASTIC PIPE (SCHEDULE 40) (SUPPLY LINE)	(N) PLASTIC PIPE (SCHEDULE 40) (SUPPLY LINE)	(N) PLASTIC PIPE (SCHEDULE 40) (SUPPLY LINE)	(N) SPRINKLER
	1"	*1"*	*3/4"*	*1"*	*1.5"*	
	EA	EA	LF	LF	LF	EA
IP–1	4	4	380	184.5	458.5	43

(N) NOT A SEPARATE BID ITEM



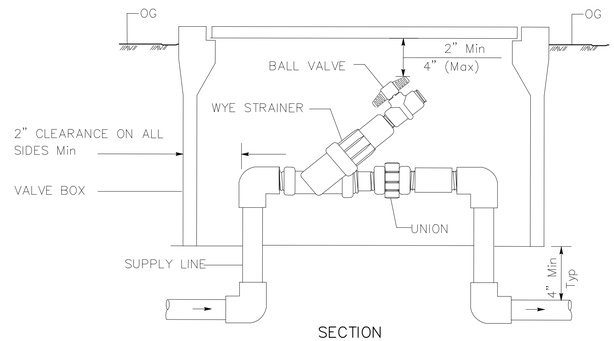
ELEVATION

CAM COUPLER ASSEMBLY



SECTION

PIPE ANCHOR



SECTION

WYE STRAINER ASSEMBLY

IRRIGATION SPRINKLER SCHEDULE AND QUANTITIES

ISS-1

STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION
CONSULTANT FUNCTIONAL SUPERVISOR: LEOPOLDO TRUJILLO
CALCULATED–DESIGNED BY: CELINA LEE
CHECKED BY: LEOPOLDO TRUJILLO
REVISED BY | DATE REVISED

LAST REVISION 03–08–21
DATE PLOTTED => $DATE
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DGN FILE =>
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT xxxx
PROJECT NUMBER & PHASE 0000000000

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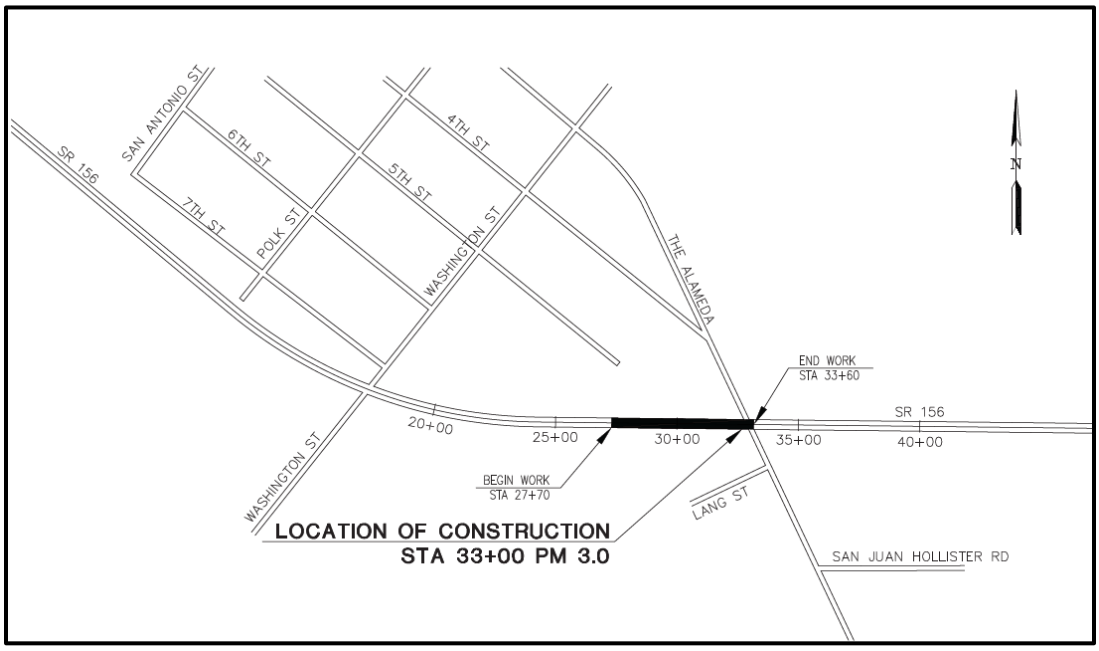
Air Quality Report

B

APPENDIX

AIR QUALITY REPORT



Eastbound Right Turn Lane at State Route 156 and The Alameda

Caltrans District 5
Napa County, California
05-SBt-156-PM 2.9/3.1

EA 05-1P3001/Project ID 05-2200-0024-1

Prepared by

Illingworth & Rodkin, Inc.
429 E Cotati Ave
Cotati, CA 94931

November 2024

This document contains blank pages to accommodate two-sided printing.

EASTBOUND RIGHT TURN LANE AT STATE ROUTE 156 AND THE ALAMEDA
AIR QUALITY REPORT

SAN BENTO COUNTY, CALIFORNIA

CALIFORNIA DEPARTMENT OF TRANSPORTATION DISTRICT 5

EA 05-1P3001

EFIS # 05-2200-0024-1

Approved by: _____ Date: _____

Branch Chief Air Quality and Noise
Office of Environmental Engineering
California Department of Transportation – District 5

Prepared by: _____ Date: _____

Jay Witt, Senior Consultant
Illingworth & Rodkin, Inc.
429 East Cotati Avenue
Cotati, California, 94931

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Contents

List of Tables

List of Figures

Acronyms and Abbreviations

Term	Definition
ºF	Degrees Fahrenheit
AADT	Average annual daily traffic
AB	Assembly bill
AMBAG	Association of Monterey Bay Area Governments
AQMP	Air Quality Management Plan
ATM	Active Traffic Management
BMP	Best Management Practice
CAAA	Clean Air Act Amendments
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
EPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
Cal-CET	Caltrans Construction Emissions Tool
CAP	Climate Action Program
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CH_4	Methane
City	San Juan Bautista
CO	Carbon monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
County	San Benito County
EO	Executive Order

Term	Definition
EPA	United States Environmental Protection Agency
FCAA	Federal Clean Air Act
FHWA	Federal Highway Administration
ft	Feet
FTA	Federal Transit Administration
FTIP	Federal Transportation Improvement Program
GHG	Greenhouse gas
IPCC	International Panel on Climate Change
LOS	Level of service
LRTP	Long Range Transportation Plan
MBARD	Monterey Bay Air Resources District
mi	Miles
MOVES	Motor Vehicle Emission Simulator
mph	Miles per hour
MPO	Metropolitan Planning Organization
MSAT	Mobile Source Air Toxics
N_2O	Nitrous oxide
NAAQS	National Ambient Air Quality Standards
NATA	National Air Toxics Assessment
NCCAB	North Central Coast Air Basin
NEPA	National Environmental Policy Act
NHTSA	National Highway Traffic Safety Administration
NO_2	Nitrogen dioxide
NOA	Naturally occurring asbestos
NO_x	Nitrogen oxide
O_3	Ozone
OPR	California Office of Planning and Research
PM	Particulate matter
PM_{10}	Particulate matter less than 10 microns in diameter

Term	Definition
$PM_{2.5}$	Particulate matter less than 2.5 microns in diameter
ppb	Parts per billion
ppm	Parts per million
ROG	Reactive organic gases
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agency
SB	Senate Bill
SIP	State Implementation Plan
SO_2	Sulfur dioxide
TACs	Toxic air contaminants
TDM	Transportation Demand Management
TSM	Transportation System Management
TIP	Transportation Improvement Program
TOG	Total Organic Gases
USC	United States Code
USDOT	United States Department of Transportation
U.S. EPA	United States Environmental Protection Agency
VHT	Vehicle hours traveled
VMT	Vehicle miles traveled
VOC	Volatile Organic Compounds

1. Proposed Project Description

1.1 Introduction

The City of San Juan Bautista (City) proposes construction of a 570-foot-long eastbound right turn lane including a 120-foot bay taper along the south side of State Route (SR) 156 at The Alameda in San Juan Bautista, San Benito County (MP 2.9-3.1). The Project will replace an existing 8-foot shoulder with a 6-foot bike lane, 12-foot right turn lane and 4-foot shoulder for a net widening of 14 feet. The City is the lead agency under the California Environmental Quality Act (CEQA). Compliance with the National Environmental Policy Act (NEPA) is not required given the project will not be using federal funds.

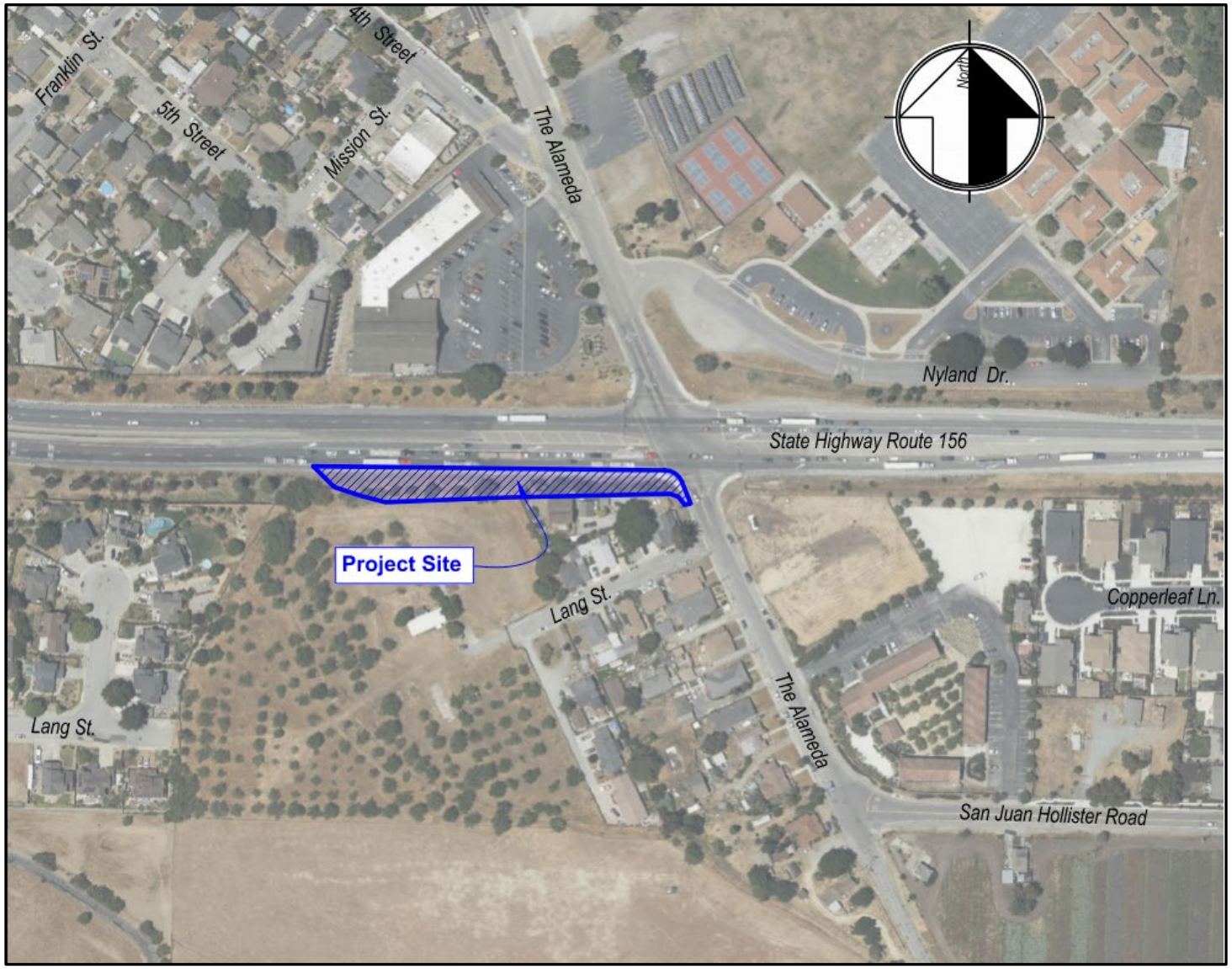
1.2 Location and Background

SR 156 is located in southeast San Juan Batista at post mile (PM) 7.35 as shown in Figure 1. San Benito County is in the North Central Coast Air Basin (NCCAB). The Monterey Bay Air Resources District (MBARD) regulates air quality in the NCCAB, and is responsible for regional air quality planning, monitoring, and permitting and the Association of Monterey Bay Area Governments (AMBAG), responsible for regional transportation planning. Ambient air quality standards have been established at both the state and federal levels. The NCCAB meets all federal ambient air quality standards. At the State level, the region meets all ambient air quality standards except those for ground-level ozone and respirable particulate matter (PM_{10}). These pollutants and the applicable standards are described further in Section 2.1.

1.3 Purpose and Need

The purpose of the proposed project is to improve safety at the intersection of SR 156 and The Alameda. It is needed to mitigate the impacts associated with a new gas station, convenience store, and quick serve restaurant located at 404 The Alameda. At the southeast corner of SR156.

Figure 1. Map of the Project Vicinity



Source: Illingworth & Rodkin, Inc.

1.4 Baseline and Forecasted Conditions

1.4.1 Existing Roadways and Baseline Traffic Conditions

The Project is located at the intersection of SR 156 and The Alameda. SR 156 is a divided, limited access highway that runs from east to west with two travel lanes in each direction and a posted speed limit of 55 miles per hour (mph). The Alameda is a local, two-lane roadway that runs from north to south in the project area with a posted speed limit ranging from 25 mph to 15 mph. Existing roadway configurations within the Project area are illustrated in Figure 1.

The existing Average Annual Daily Traffic (AADT) for SR 156 in the project area is between 29,000 and 33,000 vehicles per day with approximately 15.2 percent of the volume being trucks.[1] The Alameda has an AADT of approximately 9,000 vehicle per day.[2] The intersection is signal controlled and operates at a level of service (LOS) C during AM and PM peak hours.[3]

1.4.2 No-Build Alternative

The No-Build Alternative represents future travel conditions in the Project study area without the proposed Project and provides a basis for comparing the effects of the Build Alternative. Under the No-Build Alternative, the intersection would not be improved, leaving the existing lane geometrics and intersection controls in place, without a dedicated right turn lane. This alternative does not mitigate the traffic impacts of the new gas station, convenience store, and quick serve restaurant located at 404 The Alameda.

1.4.3 Project Build Alternative

The Build Alternative would construct a 570-foot-long eastbound right turn lane including a 120-foot bay taper along the south side of SR 156, replace an existing 8-foot shoulder with a 6-foot bike lane, 12-foot right turn lane and 4-foot shoulder for a net widening of 14 feet. The project would not change the daily volumes on SR 156 or The Alameda, nor would it change the percentage of trucks in the area. Figure 2 provides the proposed improvements associated with Build Alternative.

[1] From 2022 Caltrans Traffic Census Program. https://dot.ca.gov/programs/traffic-operations/census. Accessed November 7, 2024.
[2] Based on peak hour traffic volumes presented in Exhibit 6A, *SR 156/The Alameda Intersection Study, San Jaun Bautista, California Technical Memorandum* from Hatch Mott MacDonald dates July 1, 2014.
[3] Based on Exhibit 7, *SR 156/The Alameda Intersection Study, San Jaun Bautista, California Technical Memorandum* from Hatch Mott MacDonald dates July 1, 2014.

1.4.4 Comparison of Existing/Baseline, No-Build, and Build Alternatives

Existing/baseline conditions provide the basis for comparison to the future No-Build and Build alternatives. There would be no future increase in vehicle miles of travel (VMT) or AADT as a result of the Project as it would not affect travel demand. However, traffic in the area will increase when compared to existing conditions which is attributable to planned growth that will occur with or without the proposed Project.

1.5 Construction Activities and Schedule

Construction would begin in June of 2025 and would last for approximately 2 months. For the purposes of estimating emissions using Caltrans' Construction Emissions Tool (Cal-CET), the Project was modeled as a "Traffic Safety & Operations" project type with five "default" phases: Roadway Excavation & Removal, Base/Subbase/Imported Borrow, Paving, Drainage/Environmental/Landscaping, and Traffic Signalization/Signage/Striping/Painting. Table 1 lists the construction phases that are anticipated based on Cal-CET emissions model defaults.

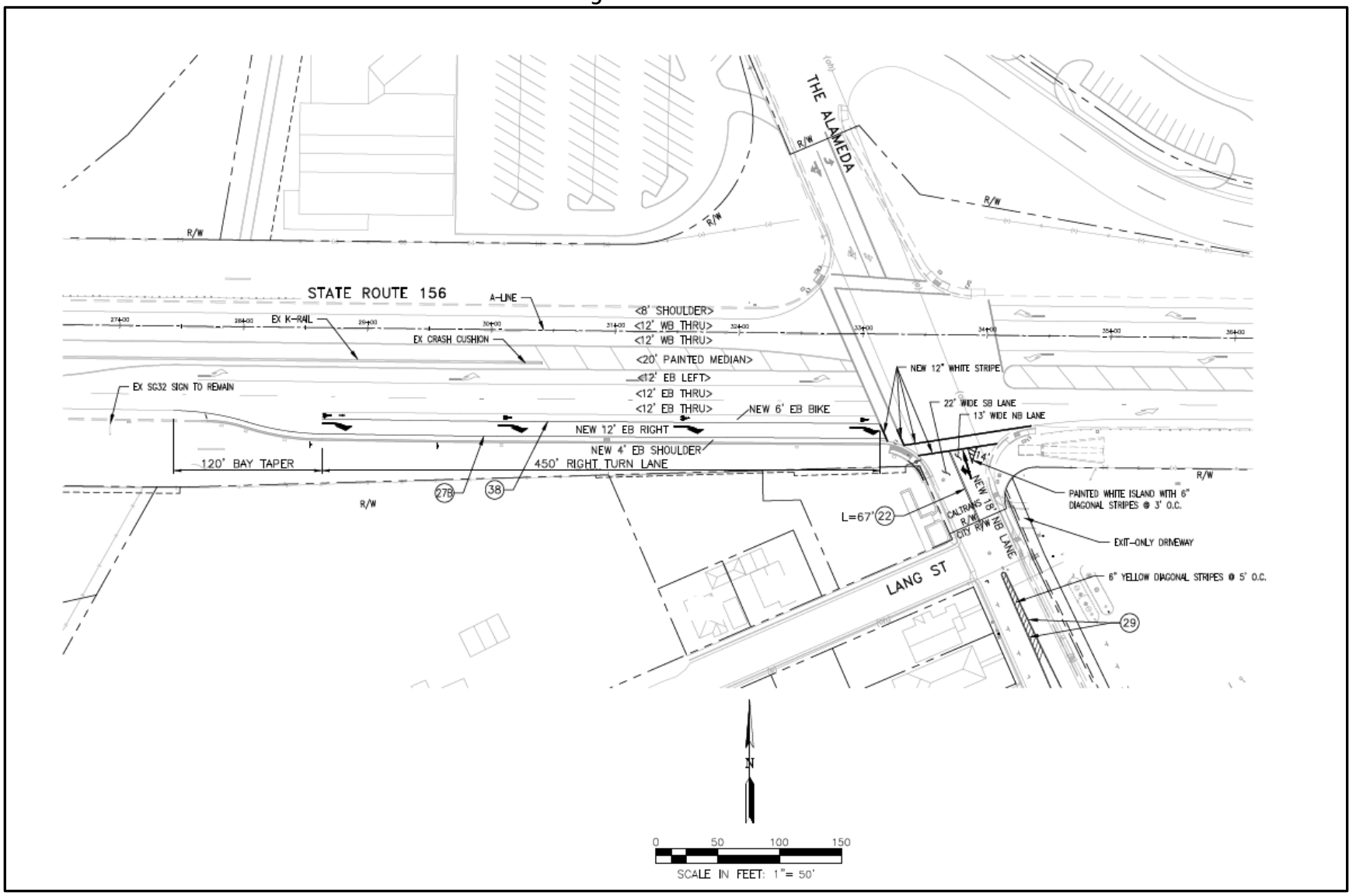
Construction will involve the use of conventional construction equipment. Before construction, the Caltrans resident engineer and the contractor will identify any necessary lane closures and use proper traffic control devices throughout the duration of the Project per Caltrans Standard Specifications and Standard Plans. The proposed Project will employ several standardized emissions control best management practices (BMPs) that are required by MBARD on most, if not all, construction projects (see Chapter 5). They were not developed in response to any specific environmental impacts resulting from the proposed Project. Chapter 5 provides more detail regarding the required construction BMPs.

Table 1. Construction Activities and Schedule.

Description/List of Construction Phase	Begin Date	Completion Date	Working Days
Roadway Excavation & Removal	6-1-2025	6-23-2025	16
Base/Subbase/Imported Borrow	6-24-2025	7-1-2025	5
Paving	7-2-2025	7-7-2025	4
Drainage/Environment/Landscaping	7-7-2025	7-8-2025	1
Traffic Signalization/Signage/Striping/Painting	7-8-2025	8-1-2025	18

Source: Cal-CET2021, based on information provided by TL Engineering. November, 2024.

Figure 2. Build Alternative



Source: TL Engineering 2024

2. Regulatory Setting

Many statutes, regulations, plans, and policies have been adopted at the federal, state, and local levels to address air quality issues related to transportation and other sources. The proposed project is subject to air quality regulations at each of these levels. This section introduces the pollutants governed by these regulations and describes the policies that are relevant to the proposed project.

2.1 Pollutant-Specific Overview

Air pollutants are governed by multiple federal and state standards to regulate and mitigate health impacts. At the federal level, there are six criteria pollutants for which National Ambient Air Quality Standards (NAAQS) have been established: CO, Pb, NO_2, O_3, PM ($PM_{2.5}$ and PM_{10}), and SO_2. The U.S. EPA has also identified nine priority mobile source air toxics (MSATs): 1,3-butadiene, acetaldehyde, acrolein, benzene, diesel particulate matter (diesel PM), ethylbenzene, formaldehyde, naphthalene, and polycyclic organic matter.[4] In California, sulfates, visibility reducing particles, hydrogen sulfide, and vinyl chloride are also regulated.

2.1.1 Criteria Pollutants

The Clean Air Act requires the U.S. EPA to set NAAQS for six criteria air contaminants: ozone (O_3),carbon monoxide (CO), particulate matter (PM), nitrogen dioxide (NO_2), lead (Pb), and sulfur dioxide (SO_2). It also permits states to adopt additional or more protective air quality standards if needed. California has set standards for certain pollutants. Table 2 documents the current air quality standards while Table 3 summarizes the sources and health effects of the six criteria pollutants and pollutants regulated in the state of California.

[4] https://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/msat/

Table 2. State and Federal Criteria Air Pollutant Standards.

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	9.0 µg/m^3	15.0 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		53 ppb (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			
See footnotes on next page …						

CARB Air Quality Standards chart developed 7/16/2024 and accessed November 8, 2024.

Greenhouse Gases and Climate Change: Greenhouse gases do not have concentration standards for that purpose. Conformity requirements do not apply to greenhouse gases.

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9. On February 7, 2024, the national annual PM2.5 primary standard was lowered from 12.0 $\mu g/m^3$ to 9.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15.0 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Table 3. Air Pollutant Effects and Sources.

Pollutant	Principal Health and Atmospheric Effects	Typical Sources
Ozone (O_3)	High concentrations irritate lungs. Long-term exposure may cause lung tissue damage and cancer. Long-term exposure damages plant materials and reduces crop productivity. Precursor organic compounds include many known toxic air contaminants. Biogenic VOC may also contribute.	Low-altitude ozone is almost entirely formed from reactive organic gases/volatile organic compounds (ROG or VOC) and nitrogen oxides (NOx) in the presence of sunlight and heat. Common precursor emitters include motor vehicles and other internal combustion engines, solvent evaporation, boilers, furnaces, and industrial processes.
Carbon Monoxide (CO)	CO interferes with the transfer of oxygen to the blood and deprives sensitive tissues of oxygen. CO also is a minor precursor for photochemical ozone. Colorless, odorless.	Combustion sources, especially gasoline-powered engines, and motor vehicles. CO is the traditional signature pollutant for on-road mobile sources at the local and neighborhood scale.
Respirable Particulate Matter (PM_{10})	Irritates eyes and respiratory tract. Decreases lung capacity. Associated with increased cancer and mortality. Contributes to haze and reduced visibility. Includes some toxic air contaminants. Many toxic & other aerosol and solid compounds are part of PM_{10}.	Dust- and fume-producing industrial and agricultural operations; combustion smoke & vehicle exhaust; atmospheric chemical reactions; construction and other dust-producing activities; unpaved road dust and re-entrained paved road dust; natural sources.
Fine Particulate Matter ($PM_{2.5}$)	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and produces surface soiling. Most diesel exhaust particulate matter – a toxic air contaminant – is in the $PM_{2.5}$ size range. Many toxic &other aerosol and solid compounds are part of $PM_{2.5}$	Combustion including motor vehicles, other mobile sources, and industrial activities; residential and agricultural burning; also formed through atmospheric chemical and photochemical reactions involving other pollutants including NOx, sulfur oxides (SOx), ammonia, and ROG.
Nitrogen Dioxide (NO_2)	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown. Contributes to acid rain & nitrate contamination of stormwater. Part of the "NOx" group of ozone precursors.	Motor vehicles and other mobile or portable engines, especially diesel; refineries; industrial operations.
Sulfur Dioxide (SO_2)	Irritates respiratory tract; injures lung tissue. Can yellow plant leaves. Destructive to marble, iron, steel. Contributes to acid rain. Limits visibility.	Fuel combustion (especially coal and high-sulfur oil), chemical plants, sulfur recovery plants, metal processing; some natural sources like active volcanoes. Limited contribution possible from heavy-duty diesel vehicles if ultra-low sulfur fuel not used.
Lead (Pb)	Disturbs gastrointestinal system. Causes anemia, kidney disease, and neuromuscular and neurological dysfunction. Also, a toxic air contaminant and water pollutant.	Lead-based industrial processes like battery production and smelters. Lead paint, leaded gasoline. Aerially deposited lead from older gasoline use may exist in soils along major roads.
Sulfates	Premature mortality and respiratory effects. Contributes to acid rain. Some toxic air contaminants attach to sulfate aerosol particles.	Industrial processes, refineries and oil fields, mines, natural sources like volcanic areas, salt-covered dry lakes, and large sulfide rock areas.
Hydrogen Sulfide (H_2S)	Colorless, flammable, poisonous. Respiratory irritant. Neurological damage and premature death. Headache, nausea. Strong odor.	Industrial processes such as: refineries and oil fields, asphalt plants, livestock operations, sewage treatment plants, and mines. Some natural sources like volcanic areas and hot springs.
Visibility Reducing Particles (VRP)	Reduces visibility. Produces haze. NOTE: not directly related to the Regional Haze program under the Federal Clean Air Act, which is oriented primarily toward visibility issues in National Parks and other "Class I" areas. However, some issues and measurement methods are similar.	See particulate matter above. May be related more to aerosols than to solid particles.
Vinyl Chloride	Neurological effects, liver damage, cancer. Also considered a toxic air contaminant.	Industrial processes

Source: Caltrans Air Quality Pollution Standards Tables, May 2020.

2.1.2 Mobile Source Air Toxics (MSAT)

Controlling air toxic emissions became a national priority with the passage of the Clean Air Act Amendments (CAAA) of 1990, whereby Congress mandated that the U.S. EPA regulate 188 air toxics, also known as hazardous air pollutants. The U.S. EPA has assessed this expansive list in its rule on the Control of Hazardous Air Pollutants from Mobile Sources (Federal Register, Vol. 72, No. 37, page 8430, February 26, 2007), and identified a group of 93 compounds emitted from mobile sources that are part of U.S. EPA's Integrated Risk Information System (IRIS) (https://www.epa.gov/iris). In addition, the U.S. EPA identified nine compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers or contributors and non-hazard contributors from the 2011 National Air Toxics Assessment (NATA) (https://www.epa.gov/national-air-toxics-assessment). These are *1,3-butadiene*, *acetaldehyde*, *acrolein*, *benzene*, *diesel particulate matter (diesel PM)*, *ethylbenzene*, *formaldehyde*, *naphthalene*, and *polycyclic organic matter*. While the Federal Highway Administration (FHWA) considers these the priority mobile source air toxics (MSATs), the list is subject to change and may be adjusted in consideration of future U.S. EPA rules.

The 2007 U.S. EPA rule mentioned above requires controls that will dramatically decrease MSAT emissions through cleaner fuels and cleaner engines. According to an FHWA analysis using U.S. EPA's MOVES3 model, even if vehicle activity (vehicle-miles traveled, VMT) increases by 31 percent from 2020 to 2060 as forecast, a combined reduction of 76 percent in the total annual emission rate for the priority MSATs is projected for the same period, as shown in Figure 3.

2.1.3 Greenhouse Gases

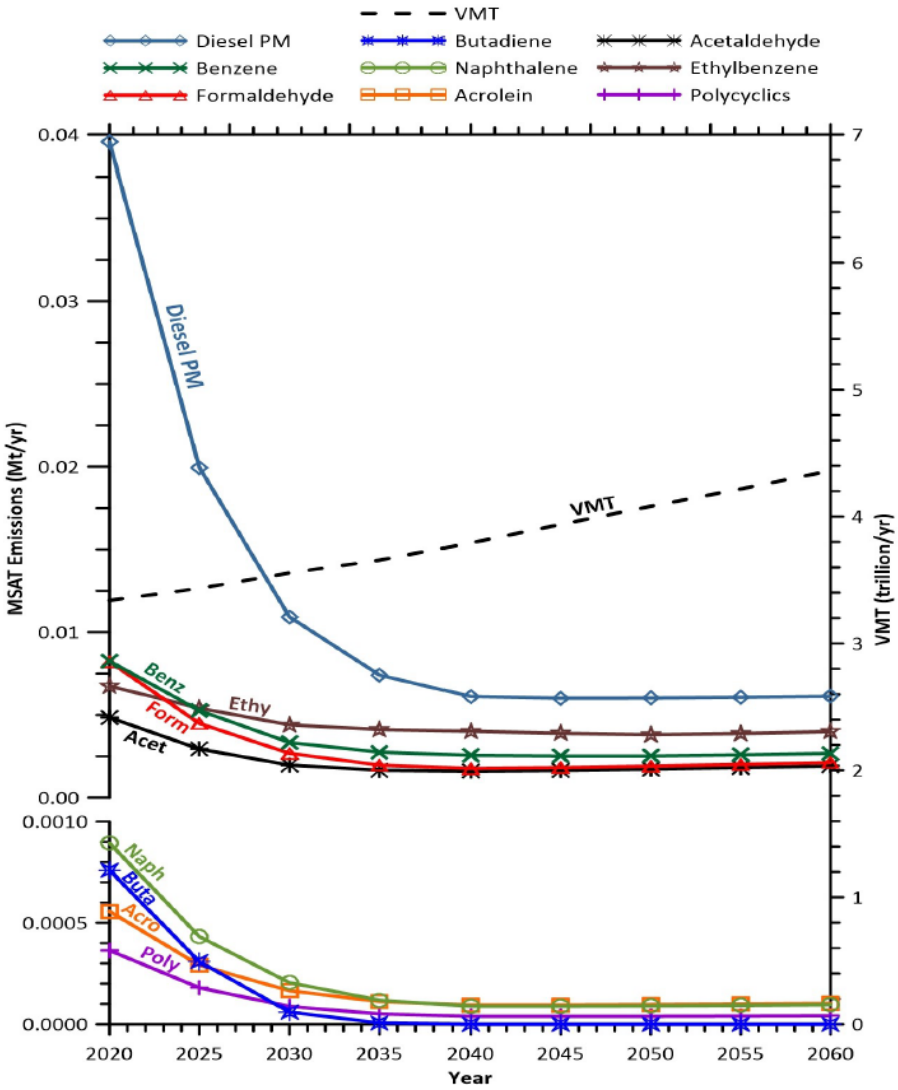
The term greenhouse gas (GHG) is used to describe atmospheric gases that absorb solar radiation and subsequently emit radiation in the thermal infrared region of the energy spectrum, trapping heat in the Earth's atmosphere. These gases include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and water vapor, among others. A growing body of research attributes long-term changes in temperature, precipitation, and other elements of Earth's climate to large increases in GHG emissions since the mid-nineteenth century, particularly from human activity related to fossil fuel combustion. Anthropogenic GHG emissions of particular interest include CO_2, CH_4, N_2O, and fluorinated gases.

GHGs differ in how much heat each trap in the atmosphere (global warming potential, or GWP). CO_2 is the most important GHG, so amounts of other gases are expressed relative to CO_2, using a metric called "carbon dioxide equivalent" (CO_2e). The global warming potential of CO_2 is assigned a value of 1, and the warming potential of other gases is assessed as multiples of CO_2. For example, the 2007 International Panel on Climate Change *Fourth Assessment Report* calculates the GWP of CH_4 as 25 and the GWP of N_2O as 298, over a 100-year time horizon.[5] Generally, estimates of all GHGs are summed

[5] See Table 2.14 in IPCC Fourth Assessment Report: Climate Change 2007 (AR4): The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom, and New York, NY, USA. http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-chapter2.pdf.

to obtain total emissions for a project or given period, usually expressed in metric tons ($MTCO_2e$), or million metric tons ($MMTCO_2e$).[6]

Figure 3. Projected National MSAT Trends, 2020-2060



(Source: https://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/msat/).

As evidence has mounted for the relationship of climate changes to rising GHGs, federal and state governments have established numerous policies and goals targeted to improving energy efficiency and fuel economy and reducing GHG emissions. Nationally, electricity generation is the largest source of GHG emissions, followed by transportation. In California, however, transportation is the largest contributor to GHGs.

[6] See http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/CEQA-Guidance-Tools.

At the federal level, the National Environmental Policy Act (NEPA) (42 United States Code [USC] Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to deciding on the action or project.

To date, no national standards have been established for nationwide mobile-source GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. However, the U.S. EPA and the National Highway Traffic Safety Administration (NHTSA) issued the first corporate fuel economy (CAFE) standards in 2010, requiring cars and light-duty vehicles to achieve certain fuel economy targets by 2016, with the intention of gradually increasing the targets and the range of vehicles to which they would apply.

California has enacted aggressive GHG reduction targets, starting with Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 is California's signature climate change legislation. It set the goal of reducing statewide GHG emissions to 1990 levels by 2020 and required the California Air Resource Board (CARB) to develop a Scoping Plan that describes the approach California will take to achieve that goal and to update it every 5 years. In 2015, Governor Jerry Brown enhanced the overall adaptation planning effort with Executive Order (EO) B-30-15, establishing an interim GHG reduction goal of 40 percent below 1990 levels by 2030, and requiring state agencies to factor climate change into all planning and investment decisions.

Senate Bill (SB) 375, the Sustainable Communities and Climate Protection Act of 2008, furthered state climate action goals by mandating coordinated transportation and land use planning through preparation of sustainable communities strategies (SCSs). The CARB sets GHG emissions reduction targets for passenger vehicles for each region. Each regional metropolitan planning organization (MPO) must include in its regional transportation plan SCSs proposing actions toward achieving the regional emissions reduction targets.[7]

With these and other State Senate and Assembly bills and executive orders, California advances an innovative and proactive approach to dealing with GHG emissions and climate change.

2.1.4 Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by state, federal, and international agencies and was identified as a toxic air contaminant by the CARB in 1986. All types of asbestos are hazardous and may cause lung disease and cancer.

Asbestos can be released from serpentine and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry

[7] https://www.arb.ca.gov/cc/sb375/sb375.htm

operations. All these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos-bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed.

Serpentine may contain chrysotile asbestos, especially near fault zones. Ultramafic rock, a rock closely related to serpentinite, may also contain asbestos minerals. Asbestos can also be associated with other rock types in California, though much less frequently than serpentinite and/or ultramafic rock. Serpentinite and/or ultramafic rock are known to be present in 44 of California's 58 counties. These rocks are particularly abundant in counties of the Sierra Nevada foothills, the Klamath Mountains, and Coast Ranges. The California Department of Conservation, Division of Mines and Geology has developed a map showing the general location of ultramafic rock in the state (https://ww2.arb.ca.gov/sites/default/files/classic/toxics/asbestos/ofr_2000-019.pdf).

2.2 Regulations

2.2.1 Federal and California Clean Air Act

The Federal Clean Air Act (FCAA), as amended, is the primary federal law that governs air quality while the California Clean Air Act (CCAA) is its companion state law. These laws and related regulations by the U.S. EPA and the CARB set standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). NAAQS and state ambient air quality standards have been established for six transportation-related criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM), which is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM_{10}) and particles of 2.5 micrometers and smaller ($PM_{2.5}$), and sulfur dioxide (SO_2). In addition, national and state standards exist for lead (Pb), and state standards exist for visibility reducing particles, sulfates, hydrogen sulfide (H_2S), and vinyl chloride. The NAAQS and state standards are set at levels that protect public health with a margin of safety and are subject to periodic review and revision. Both state and federal regulatory schemes also cover toxic air contaminants (air toxics); some criteria pollutants are also air toxics or may include certain air toxics in their general definition.

2.2.2 Transportation Conformity

The conformity requirement is based on Federal Clean Air Act (FCAA) Section 176(c), which prohibits the U.S. Department of Transportation (USDOT) and other federal agencies from funding, authorizing, or approving plans, programs, or projects that do not conform to State Implementation Plan (SIP) for attaining the NAAQS. "Transportation Conformity" applies to highway and transit projects and takes place on two levels: the regional—or planning and programming level—and the project level. The proposed Project must conform at both levels to be approved.

Conformity requirements apply only in nonattainment and "maintenance" (former nonattainment) areas for the NAAQS, and only for the specific NAAQS that are or were violated. The U.S. EPA

regulations at 40 CFR 93 govern the conformity process. Conformity requirements do not apply in unclassifiable/attainment areas for NAAQS and do not apply at all for state standards regardless of the status of the area.

2.2.3 National Environmental Policy Act (NEPA)

NEPA requires that policies and regulations administered by the federal government are consistent with its environmental protection goals. NEPA also requires that federal agencies use an interdisciplinary approach to planning and decision-making for any actions that could impact the environment. It requires environmental review of federal actions including the creation of Environmental Documents (EDs) that describe the environmental effects of a proposed project and its alternatives (including a section on air quality impacts). However, NEPA only applies to projects requiring federal funding, and, therefore, does not apply to this project.

2.2.4 California Environmental Quality Act (CEQA)

CEQA[8] is a statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible. CEQA documents address CCAA requirements for transportation projects. While state standards are often more strict than federal standards, the state has no conformity process.

2.2.5 Local

The U.S. EPA has delegated responsibility for NAAQS compliance to the states. California has delegated responsibility to local air districts which establish local rules to protect air quality. Caltrans' Standard Specification 14-9.02 (Caltrans, 2022) requires compliance with all applicable air quality laws and regulations including local and air district ordinances and rules.

Local Air District Significance Thresholds

In October 1995, MBARD adopted its initial CEQA Air Quality Guidelines. The most recent update was in February of 2008. The District's CEQA Air Quality Guidelines contain criteria for assessing the significance of a project based on emissions from a project's construction and/or operation. The most recent thresholds of significance are summarized in Table 4.

[8] For general information about CEQA, see: http://resources.ca.gov/ceqa/more/faq.html.

Table 4. MBARD CEQA Significance Thresholds.

Criteria Air Pollutant	Construction Thresholds	Operational Thresholds
	Average Daily Emissions (lbs./day)	Daily Emissions (lbs./day)
VOC	Not Applicable	137 (direct + indirect)
NO_X as NO_2	Not Applicable	137 (direct + indirect)
PM_{10}	82	82 (on-site)
CO	Not Applicable	550 (direct)
		LOS at intersection/road segment degrades from D or better to E or F or V/C ratio at intersection/road segment at LOS E or F increases by 0.05 or more or delay at intersection at LOS E or F increases by 10 seconds or more or reserve capacity at unsignalized intersection at LOS E or F decreases by 50 or more (indirect)
SO_X as SO_2		150 (direct)

Note: ROG = reactive organic gases, NO_X = nitrogen oxides, PM_{10} = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, $PM_{2.5}$ = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less.

Air Quality Management Plan

The CCAA required air districts not in attainment of the CAAQS to prepare an initial Air Quality Management Plan (AQMP) in 1991, with subsequent updates every three years. The AQMPs were then incorporated into the State Implementation Plans (SIPs) for NAAQS compliance as applicable.

The airshed has a history of not meeting the CAAQS for ozone. Therefore, MBARD initially prepared its AQMP in 1991 and has since updated it as required by CARB. The 1991 AQMP established specific planning requirements to meet the 1-hour ozone CAAQS standard. An 8-hour standard was added in 2006 making the CAAQS for ozone more stringent. The most recent update to the District's AQMP (2012-2015) adopted in March 2017, continues to focus on attaining the CAAQS for ozone.

Particulate Matter Plan

In the early 2000s, NCCAB was designated nonattainment for the PM_{10} CAAQS, and attainment for the NAAQS. To meet the CCAA requirements for the PM_{10} standard, the District adopted a 2005 Particulate Matter Plan, which was separate from the AQMP. The purpose of the plan was to identify measures and policies that would reduce PM_{10} emissions in the airshed. The measures identified in the plan are still in effect and include BMPs for fugitive dust. Contingency measures were also identified to be implemented should the airshed continue to exceed the CAAQS for PM_{10}.

Moving Forward Monterey Bay 2045

Assembly Bill (AB) 375 requires regional planning agencies to include SCSs in their regional transportation plan updates to describe how the GHG emissions reductions set by CARB would be met through land-use and transportation planning.

In June 2022, AMBAG approved their regional transportation plan (RTP) and SCS, *Moving Forward Monterey Bay 2045* that demonstrates the region's ability to exceed the GHG emission reduction targets set forth by the CARB of three percent per capita from passenger vehicles by 2020, when compared to 2005, and six percent per capita by 2035.

3. Affected Environment

The topography of a region can substantially impact air flow and elevate pollutant concentrations. California is divided into 15 air basins with similar topography and meteorology to better manage air quality throughout the state. Each air basin has a local air district that is responsible for identifying and implementing air quality strategies to comply with ambient air quality standards.

The Project is located in the City of San Jaun Bautista in San Benito County, an area within the North Central Coast Air Basin, which, in addition to San Benito County, includes Santa Cruz and Monterey Counties. Air quality regulation in the North Central Coast Air Basin is administered by the MBARD. Current estimated population for San Benito is 65,853 and the county's economy is largely driven by the manufacturing, construction, and health care and social assistance industries. [9]

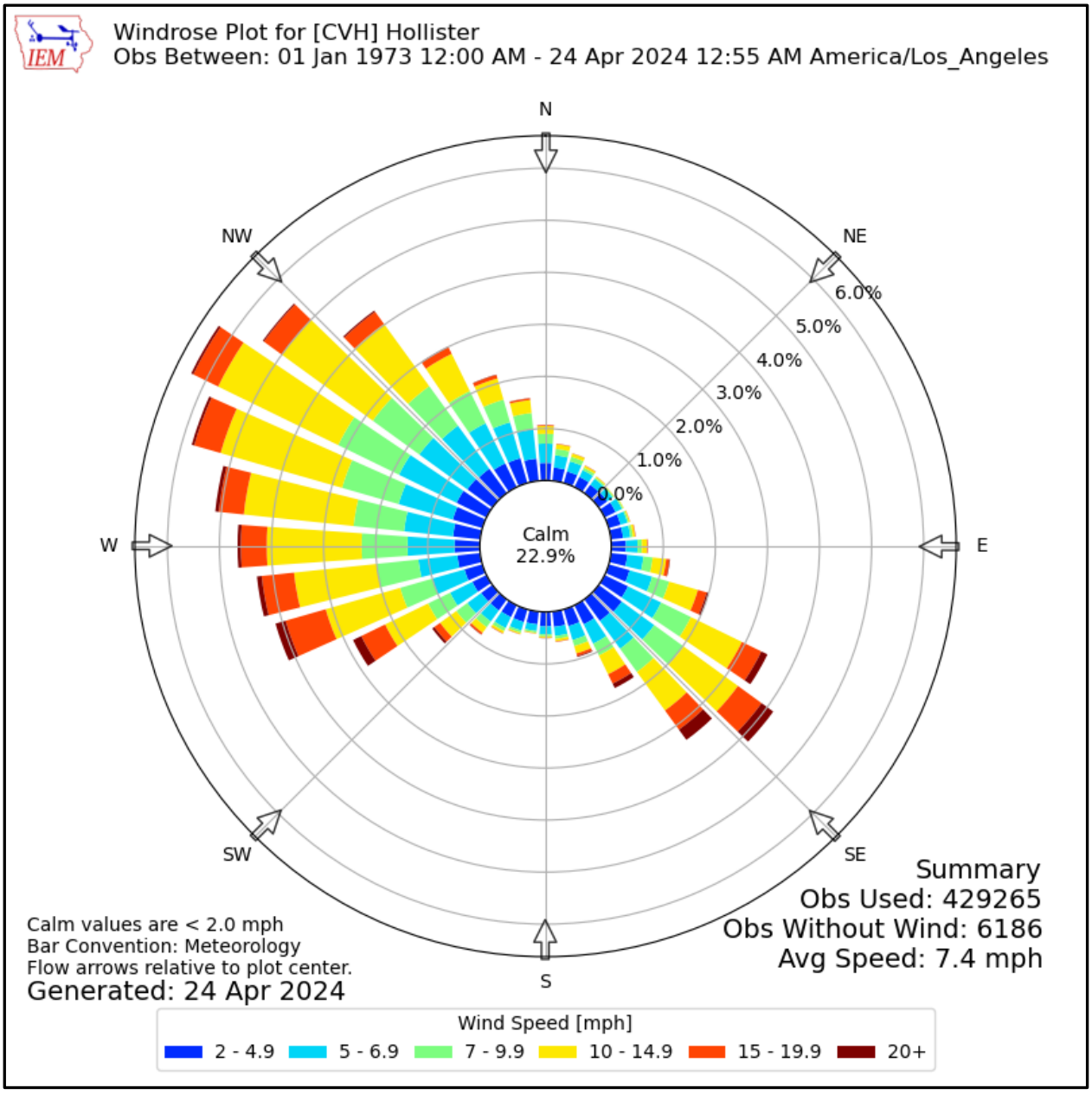
3.1 Climate, Meteorology, and Topography

Meteorology (weather) and terrain can influence air quality. Certain weather parameters are highly correlated to air quality, including temperature, the amount of sunlight, and the type of winds at the surface and above the surface. Winds can transport O_3 and O_3 precursors (i.e., reactive organic gases [ROG]) from one region to another, contributing to air quality problems downwind of source regions. Furthermore, mountains can act as a barrier that prevents ozone from dispersing.

The Hollister Municipal Airport includes an Automated Surface Observing System (ASOS) that provides hourly weather conditions such as wind speed, visibility, temperature, and precipitation that is maintained by the Federal Aviation Administration. This station is located approximately 7.8 miles northeast of the Project site and is representative of meteorological conditions near the Project. Figure 4 shows a wind rose illustrating the predominant wind patterns near the Project. The climate of the Project area is generally marine in character, with short, cold, wet winters (average 24-hour temperature of 49 degrees Fahrenheit in January) and warm, dry, and mostly clear summers (average 24-hour temperature of 68 degrees Fahrenheit in July). A semi-permanent high-pressure cell in the eastern Pacific is the basic controlling factor in the climate of the NCCAB. In the summer, the high-pressure cell is dominant and causes persistent west and northwest winds over the entire California coast. The predominant onshore flow is confined to a series of northwest to southeast trending mountains and valleys. Air descends in the Pacific High forming a stable temperature inversion of hot air over a cool coastal layer of air. The onshore air currents pass over cool ocean waters to bring fog and relatively cool air into the coastal valleys. As shown in Figure 4, the prevailing winds in the Project area flow mainly from the northwest of the Project area to the southeast. They help keep this the valley fairly cool. Annual average rainfall is almost 13.8 inches (at the Hollister Municipal Airport), mainly falling during the winter months.

[9] Source: https://datausa.io/profile/geo/san-benito-county-ca

Figure 4. Predominant Wind Patterns Near the Project.



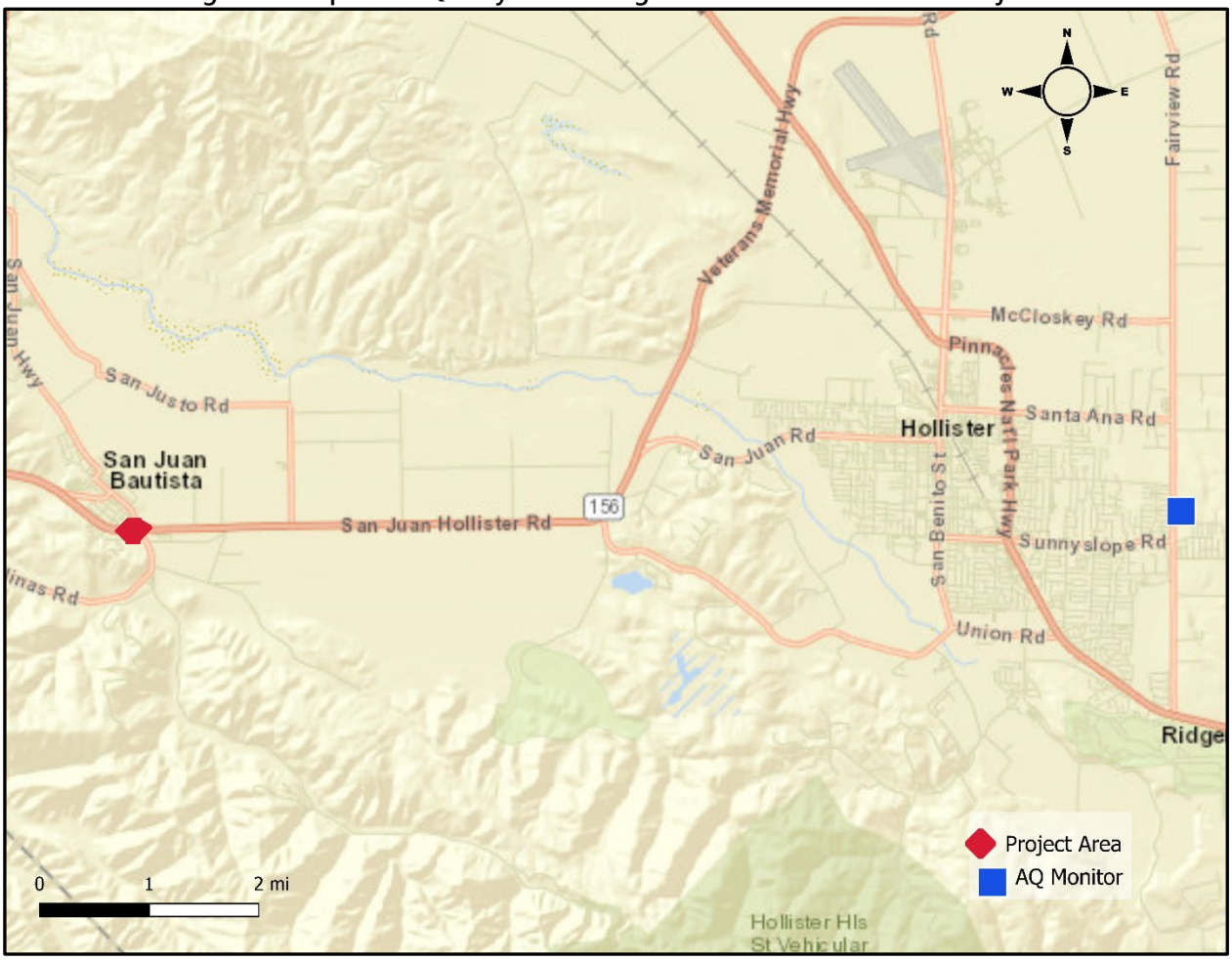
Source: https://mesonet.agron.iastate.edu/sites/windrose.phtml?station=CVH&network=CA_ASOS

3.2 Existing Air Quality

This section summarizes existing air quality conditions near the Project area. It includes attainment statuses for criteria pollutants, describes local ambient concentrations of criteria pollutants for the past

5 years, and discusses MSAT and GHG emissions. Currently, the closest operating air quality monitoring site to the Project is the Hollister Site, located approximately 9.5 miles east at 1979 Fairview Road (see Figure 5).[10]

Figure 5. Map of Air Quality Monitoring Station Located Near the Project.



Source: Illingworth and Rodkin, 2024

3.2.1 Criteria Pollutants and Attainment Status

Table 5 lists the state and federal attainment status for all regulated pollutants. For the NAAQS, the air basin is attainment or unclassified for all criteria pollutants. Under state designations (i.e., CAAQS), the air basin is nonattainment for PM_{10} and attainment/unclassified for all other pollutants. Table 6 lists air quality trends collected at the Hollister Monitoring Station for the past 5 years. There are no federal SIPs relevant to the Project study area.

[10] BAAQMD relocated the 2552 Jefferson Street site in Napa to Napa Valley College in 2015. In 2021, the air district lost the lease on the site and has not found a new location for a monitoring site in Napa. Therefore, monitoring data is only available through some of 2021.

Table 5. State and Federal Attainment Status.

Pollutant	State Attainment Status	Federal Attainment Status	Attainment Plan (O_3, PM and CO)
O_3	Attainment	Attainment	Air Quality Management Plan (AQMP), 2017
Respirable PM (PM_{10})	Nonattainment	Attainment	Particulate Matter Plan, 2005
Fine PM ($PM_{2.5}$)	Attainment	Attainment	--
CO	Attainment	Unclassified/ Attainment	--
NO_2	Attainment	Unclassified/ Attainment	--
SO_2	Attainment	Unclassified/ Attainment	--
Pb	Attainment	Unclassified/ Attainment	--
Visibility-Reducing Particles	Unclassified	N/A	--
Sulfates	Attainment	N/A	--
Hydrogen Sulfide	Unclassified	N/A	--
Vinyl Chloride	No Information Available	N/A	--

Source: CARB, 2024; www.arb.ca.gov/desig/adm/adm.htm, accessed November 11, 2024, US EPA Greenbook https://www3.epa.gov/airquality/greenbook/cbtc.html

Table 6. Air Quality Concentrations for 2019-2023 Measured at Nearest Operating Monitor.

Pollutant	Standard	2019	2020	2021	2022	2023
O_3						
Max 1-hr concentration		0.079 ppm	0.090 ppm	0.077 ppm	0.073 ppm	0.065 ppm
No. days exceeded: CAAQS	0.09 ppm	0	0	0	0	0
Max 8-hr concentration		0.067 ppm	0.074 ppm	0.068 ppm	0.058 ppm	0.056 ppm
No. days exceeded: CAAQS	0.070 ppm	0	2	0	0	0
NAAQS	0.070 ppm	0	2	0	0	0
PM_{10}						
Max 24-hr concentration		130.7 µg/m^3	159.0 µg/m^3	130.0 µg/m^3	77.4 µg/m^3	56.8 µg/m^3
No. days exceeded: CAAQS	50 µg/m^3	NA	NA	5.1	4.1	2
NAAQS	150 µg/m^3	0	1	0	0	0
Max annual concentration		17.1 µg/m^3	23.3 µg/m^3	19.3 µg/m^3	18.5 µg/m^3	12.6 µg/m^3
Standard exceeded: CAAQS	20 µg/m^3	No	Yes	No	No	No
$PM_{2.5}$						
Max 24-hr concentration		19.2 µg/m^3	89.0 µg/m^3	27.2 µg/m^3	19.5 µg/m^3	39.4 µg/m^3
No. days exceeded: NAAQS	35 µg/m^3	0	14.1	0	0	1
Max annual concentration		4.9 µg/m^3	8.8 µg/m^3	5.6 µg/m^3	5.0 µg/m^3	4.0 µg/m^3
Standard exceeded: CAAQS	12 µg/m^3	No	No	No	No	No
NAAQS	12.0 µg/m^3	No	No	No	No	No

Source: CARB, 2024; https://arb.ca.gov/adam/select8/sc8start.php

3.2.2 Mobile Source Air Toxics

The Project is located near sources that emit priority MSATs, including non-mobile sources. The primary sources are traffic and stationary sources.

Traffic

Vehicles that travel to, from, and through the intersection and connecting local roadways and arterials are the largest sources of MSATs affecting sensitive receptors in the Project area. Vehicle traffic in the area is generated primarily by the many residential, commercial, and civic developments near or within the project area.

Existing Permitted Stationary Sources

There is one permitted stationary sources of air pollution within 1,000 feet of the project area. It is a coffee roaster facility located at 81 Fourth St. in San Jaun Bautista. Additional permitted stationary sources of pollution exist at various distances beyond the impact area of the Project. The fuel station

associated with the project at 404-408 The Alameda will also be a permitted stationary sources of air pollution within the project area once it is constructed.

MSAT Monitoring

Ambient MSAT data are available from CARB's website[11], with the closest monitoring station reporting recent data being the two monitors located in San José, approximately 39 miles northwest of the project site.

3.2.3 Greenhouse Gas and Climate Change

CO_2, as part of the carbon cycle, is an important compound for plant and animal life, but also accounted for 84% of California's total GHG emissions in 2015. Transportation, primarily on-road travel, is the single largest source of CO_2 emissions in the state. The proposed Project, located in the city of San Juan Bautista in San Benito County, is included in the current RTP/SCS, *Moving Forward Monterey Bay 2045*. In 2018, CARB set updated targets for lowering GHG in the Monterey Bay region. They call for a three percent reduction in per capita GHG emissions from passenger vehicles by 2020 (compared with 2005); and a six percent per capita reduction by 2035 through land use and transportation planning.[12]

3.3 Sensitive Receptors

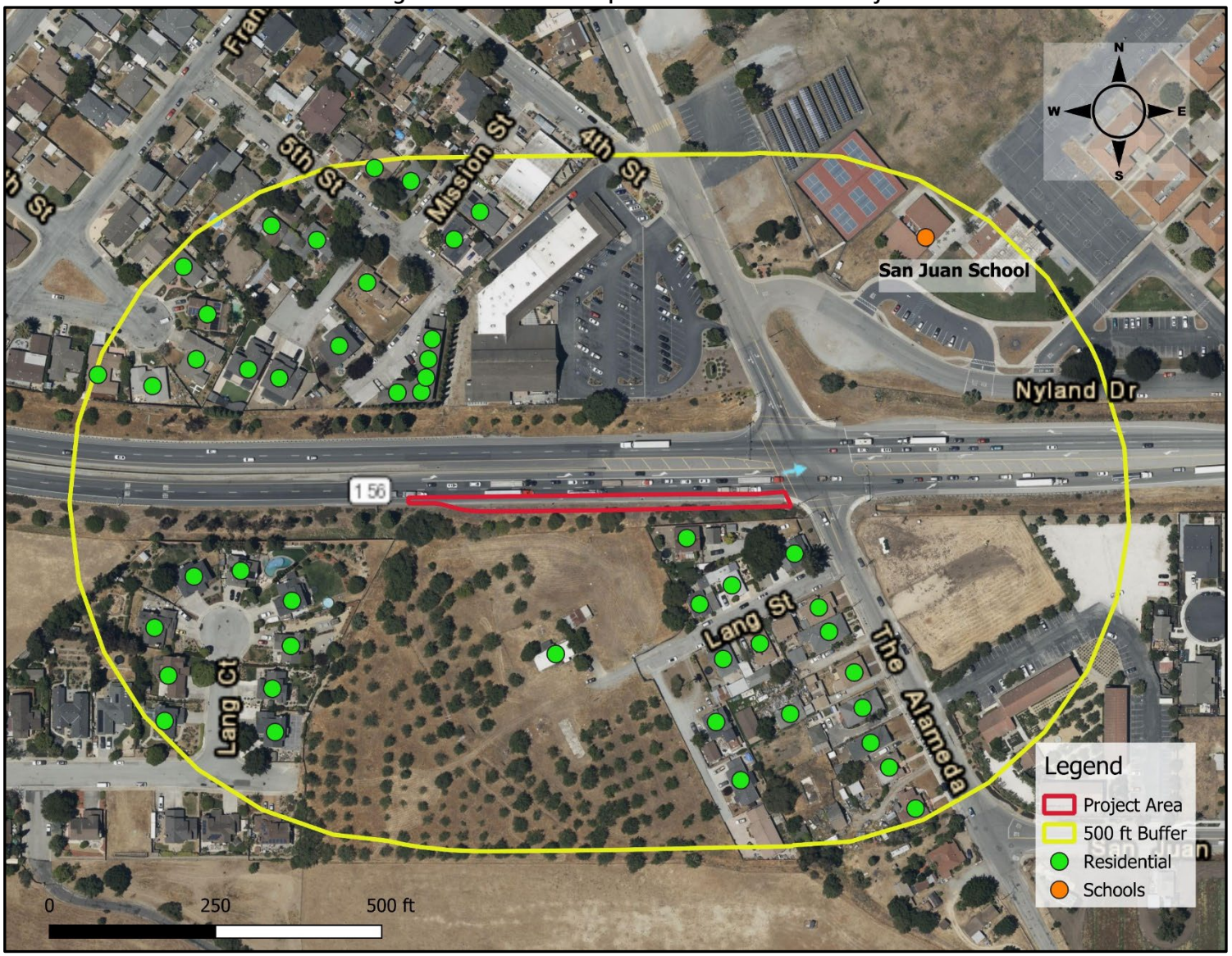
The Project is located within the City of San Jaun Bautista, which is a populated suburban area. Surrounding land uses in the vicinity of the Project intersection include commercial businesses, single-family residences, a public school.

Sensitive receptors typically include residential dwellings (including single-family houses and multi-family residential buildings, townhouses, and apartments), schools, daycare centers, hospitals, and senior-care facilities. Based on research, the zone of greatest concern near roadways is within 500 feet (150 meters). Figure 6 shows the locations of sensitive receptors relative to the study area. Receptors located within 500 feet of the study area were identified using Google Maps and GIS. Table 7 lists the type of sensitive receptors, and the number identified.

[11] http://www.arb.ca.gov/adam/toxics/toxics.html

[12] *Moving Forward Monterey Bay 2045*, Chapter 4. Association of Monterey Bay Area Governments. June, 2022.

Figure 6. Sensitive Receptors Located Near the Project.



Source: Illingworth & Rodkin, 2024

Table 7. Sensitive Receptors Located Within 500 Feet of the Study Area.

Sensitive Receptor Group	Number of Receptors Identified	Receptor Names	Address (if applicable)	Distance Between Receptor and Project (ft)
Schools	1	San Jaun School	100 Nyland Dr.	391
Residences	46+	Not provided due to the abundance of single-family and multi-family buildings identified near the project area.	Not Applicable.	28.5 - 500

Source: Illingworth & Rodkin, 2024

3.4 Conformity Status

Transportation Conformity applies in areas that are "nonattainment" or "attainment-maintenance" for the NAAQS, and only for the standards that are or previously were violated. Conformity analysis and determinations are done at both the regional and project-level scales. From a practical viewpoint, the pollutant analyses addressed by project-level conformity identify CO and PM hotspots, while regional conformity pollutant analyses can involve CO, PM, and O_3 precursors (ROG and NOx) emissions.

The NCCAB is designated as an attainment and/or unclassified area for all the NAAQS. Therefore, federal transportation conformity requirements do not apply to projects in the airshed. Additionally, the project is not federally funded, nor is it considered regionally significant. Therefore, transportation conformity does not apply.

3.5 NEPA Analysis/Requirement

The project is not using federal funds for construction. Therefore, NEPA Analysis/Requirements do not apply to this project.

3.6 CEQA Analysis/Requirement

The City is the lead agency under CEQA. For CEQA, the air quality analysis addresses pollutants for which California has established air quality standards (O_3, PM_{10}, $PM_{2.5}$, CO, NO_2, SO_2, Pb, visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride), as well as GHGs, MSATs, and asbestos. Analysis and/or documentation requirements for CEQA vary by pollutant; ranging from a narrative describing that the pollutant is typically not a transportation issue to an emissions analysis. For CEQA, future scenario emissions (Build and No-Build Alternatives) should be compared with baseline (existing conditions) emissions.

4. Environmental Consequences

This section describes the methods, impact criteria, and results of the air quality analyses of the proposed Project. Analyses in this report were conducted using methodologies and assumptions that are consistent with the requirements of CEQA.

4.1 Impact Criteria

Project-related emissions will have an adverse environmental impact if they result in pollutant emissions levels that either create or worsen a violation of an ambient air quality standard (identified in Table 2) or contribute to an existing air quality violation.

The MBARD CEQA significance thresholds were used to evaluate air quality impacts from a CEQA perspective. The Caltrans Construction Emissions Tool (2021 Version) (Cal-CET2021) was used to estimate emissions from the construction of the Project. Emissions impact from project operations were addressed qualitatively.

4.2 Short-Term Effects (Construction Emissions)

Site preparation and construction would involve excavation, removing and improving existing roadways, paving new roadway surfaces, and installing new traffic control (i.e., signage and pavement markings). During construction, short-term degradation of air quality is expected from the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other activities related to construction. Emissions from construction equipment and on-road vehicles powered by gasoline and diesel engines are also anticipated and would include CO, NO_X, ROG, directly emitted PM_{10} and $PM_{2.5}$, and toxic air contaminants (TACs) such as diesel exhaust particulate matter. Construction activities in the area may temporarily increase traffic congestion and slow the speed of traffic, resulting in a temporary increase in on-road emissions. These emissions would be limited to the immediate area impacted by construction-related traffic.

4.2.1 Construction Equipment, Traffic Congestion, and Fugitive Dust

Construction emissions are defined as those that occur only during the construction phase of the project and last five years or less at any individual site. They typically fall into two main categories:

- *Fugitive Dust*: Emissions from construction due to ground disturbance. All air districts and the California Health and Safety Code (Sections 41700-41701) prohibit "visible emissions"

exceeding three minutes in one hour – this applies not only to dust but also to engine exhaust. In general, this is interpreted as visible emissions crossing the right-of-way line.

Sources of fugitive dust include disturbed soil at the construction site and trucks carrying uncovered loads of materials. Unless properly controlled, vehicles leaving the site may deposit mud on the interstate or local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions may vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions, soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

- *Construction equipment emissions*: Diesel exhaust particulate matter is a California-identified toxic air contaminate, and localized issues may exist if diesel-powered construction equipment is operated near sensitive receptors.

Construction emissions were estimated using the latest version of Caltrans' Cal-CET2021 emissions model. Detailed construction plans were not available at the time of this analysis. Therefore, equipment quantities and construction phases provided by Cal-CET2021 were used along with the overall project duration provided by the Project's design engineering team. Appendix A lists all the construction inputs provided and entered into Cal-CET2021.

Construction was divided into five "default" phases: Roadway Excavation & Removal, Base/Subbase/Imported Borrow, Paving, Drainage/Environmental/Landscaping, and Traffic Signalization/Signage/Striping/Painting. Estimates of the project duration and the total project costs were provided by TL Engineering.[13] Table 1 summarizes the overall durations that are anticipated for each stage.

A Cal-CET2021 model run was developed to estimate the construction emissions, using the roadways input. Construction-related emissions for the Project are presented in Table 8. Emissions are shown per project phase in pounds per day (lbs/day) and in total tons for the entire construction period. The CO_2 equivalent (CO_2e) emissions are represented in metric tons (MT) to express the impact of various GHGs in one singular number. CO_2e was calculated by converting tons/phase to metric tons (MT) and multiplying the emissions (MT/phase) of CO_2, CH_4, N_2O, and Hydrofluorocarbons (HFCs) by their greenhouse warming potentials (GWPs) and summing the emissions.[14] The GWP for CO_2 is one (1) as it is the reference gas, while the GWP for CH_4 is 25, the GWP for N_2O is 298, the GWP for HFCs is 1,430, and the GWP for black carbon (BC) is 460 per CARB, which uses the International Panel on Climate Change (IPCC) fourth assessment report. The Cal-CET2021 inputs and outputs are included in Appendix A and are based on the best information available at the time the emissions modeling was conducted.

[13] Via email to Teri Wissler Adam from Leo Trujilo. November 7, 2024.

[14] Per the EPA, GWP is a measure of how much energy the emission of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of carbon dioxide (https://www.epa.gov/ghgemissions/understanding-global-warming-potentials#Learn%20why).

Table 8. Uncontrolled Construction Emissions for the Project.

Phase/Activity	ROG* (lbs/day)	CO (lbs/day)	NO_x (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)	CO_2e (MT/phase)
Roadway Excavation & Removal	0.5	3.1	3.3	1.6	0.4	6
Base/Subbase/Imported Borrow	0.6	4.3	4.2	4.6	0.7	2
Paving	0.9	3.0	6.9	0.5	0.5	3
Drainage/Environment/ Landscaping	0.1	0.2	0.4	<0.1	<0.1	<1
Traffic Signalization/Signage/ Striping/Painting	0.5	2.6	3.9	0.2	0.2	14
Average Workday Emissions (lbs/day)	**0.54 lbs/day**	**2.97 lbs/day**	**3.87 lbs/day**	**1.23 lbs/day**	**0.36 lbs/day**	**25 MT/Year**
Total Construction (tons or MT)	**0.01 tons**	**0.07 tons**	**0.09 tons**	**0.03 tons**	**<0.01 tons**	**25 MT**

*ROG is reactive organic gases, which is comparable to volatile organic compounds (VOC). Source: Illingworth & Rodkin using Cal-CET2021 version 1.0.

The emissions estimates presented in Table 8 are below the MBARD CEQA emissions thresholds provided in Table 4. As described in Section 5.1, the construction contractor must comply with the Caltrans' Standard Specifications in Sections 13 – Water Pollution Control and 14-9 – Air Quality (2023). These standard specifications require implementation of emissions control measures and BMPs, most of which are also required by the air district. The EPA and CARB have also adopted rules and emission standards that would further reduce diesel PM emissions from on-road and off-road engines for construction equipment. Please note that although these measures are anticipated to reduce construction-related emissions, reductions cannot be quantified at this time.

4.2.2 Asbestos

As detailed in Section 2.1.4, asbestos is a known human carcinogen that can be found in manufactured items (e.g., structural asbestos found in ceilings) or found naturally (e.g., naturally occurring asbestos [NOA]). Structural asbestos is regulated by federal and state air district regulations, while NOA is regulated by CARB and worker-safety programs.

NOA in California may occur in serpentinite and ultramafic rocks. NOA is commonly found in the foothill region of the Sierra Nevada, the Coast Ranges, and northwestern California. In an NOA area, construction could disturb the NOA, and it may become airborne. Therefore, a review of the Project footprint and of asbestos areas in California was completed to determine if NOA would be present in the area. Based on the information on NOA provided by CARB[15], there are no NOA areas located within the project limits and further analysis is not needed.

[15] See https://ww2.arb.ca.gov/resources/documents/naturally-occurring-asbestos-publications-maps, accessed October 2, 2020.

Buildings may have materials that contain asbestos. When they are demolished, there is a potential for asbestos emissions. However, the Project would not require the demolition of existing buildings or structures. Therefore, asbestos exposure from demolition activities is not an issue on this Project.

4.2.3 Lead (Pb)

Aerially Deposited Lead

Prior to the mid-1980s, lead was commonly added to gasoline. As a result, lead was emitted as a component of motor vehicle exhaust. Soil sampling along many roadways has found that concentrations of lead exceed applicable thresholds for classification as a hazardous material. This phenomenon known as "aerially deposited lead" (ADL) is widespread. Because the freeways in the Project area were built prior to the phaseout of lead as a gasoline additive, elevated concentrations of lead are likely to be present in the soil along the freeways.

Prior to Project construction, a soil investigation would be conducted to determine whether ADL has affected soils that would be excavated as part of the Project. The investigation for ADL would be performed in accordance with Caltrans' Lead Testing Guidance Procedure. The analytical results would be compared against applicable hazardous waste criteria. Based on analytical results, the investigation would provide recommendations regarding management and disposal of affected soils in the Project area including the reuse potential of ADL-affected soil during Project construction. The provisions of a variance granted to Caltrans by the California Department of Toxic Substances Control on September 22, 2000 (or any subsequent variance in effect when the Project is constructed) regarding aerially deposited lead would be followed.

Lead-Based Paint

Buildings and bridges may have old lead-based paint on them and, when demolished, have the potential for lead emissions. However, the Project would not require the demolition of existing buildings or structures. Therefore, lead-based paint exposure from demolition activities is not an issue on this Project.

4.3 Long-Term Effects (Operational Emissions)

VOC, NO_X, CO, MSAT, and GHG emissions will decrease in the future as older vehicles are replaced by newer vehicles with more stringent emissions and fuel economy standards. However, PM_{10} and $PM_{2.5}$ emissions will increase in the future as a function of increases in fugitive emissions sources (i.e., road dust, break wear, tire wear), which is driven by increases in VMT. VMT is expected to increase in the future due to planned growth in the area.

When compared to the No-Build Alternative, the Build Alternative would result in the same emissions of VOC, NO_X, CO, PM_{10}, $PM_{2.5}$, MSAT, and GHGs as the project would not impact traffic volumes or

regional vehicle fleet mix. Emissions reductions from reduced delay (e.g., less idling) at the intersection given the Build condition are possible but could not be quantified.

4.3.1 CO Analysis

CO levels in the future will be lower than the baseline conditions. When compared to the No-Build Alternative, CO emissions for the Build Alternative will be the same as VMT between the two alternatives does not change.

4.3.2 PM Analysis

When compared to the baseline/existing condition, both PM_{10} and $PM_{2.5}$ would increase due to future increases in VMT. PM_{10} and $PM_{2.5}$ emissions are heavily influenced by VMT as much of these pollutants are emitted as a result of fugitive road dust emissions, tire wear, and brake wear. However, PM emissions for the Build Alternative are the same as those for the No Build as VMT and traffic volumes are not impacted by the Project.

4.3.3 NO_2 Analysis

The U.S. EPA modified the NO_2 NAAQS to include a 1-hr standard of 100 parts per billion (ppb). Currently there is no federal project-level NO_2 analysis requirement. However, NO_2 is a pollutant of concern near roadways. The Project is in an area unclassified by U.S. EPA for NO_2 attainment. Current and historical monitoring data for the region do not indicate any violations of the NAAQS or exceedances of the CAAQS for NO_2.

NO_2 concentrations affected by the Project will likely be dominated by overall NO_x emissions. If ozone is present at relatively low (background) concentrations, most of the directly emitted NO_x will convert to NO_2 within a few seconds. Therefore, NO_X emissions overall can serve as a useful analysis surrogate for NO_2 (Caltrans, 2012). NO_x levels in the future will be lower than the baseline conditions due to improvements in vehicle and fuel technologies. When compared to the No-Build Alternative, the Build Alternative would have the same emissions as City-wide VMT, and traffic volumes are not impacted by the Project.

4.3.4 Mobile Source Air Toxics Analysis

MSAT emissions in the future are projected to be lower for the No Build Alternative and the Build Alternative when compared to present levels as a result of U.S. EPA's national control programs. Nationally, these programs are projected to reduce annual MSAT emissions by over 76 percent between 2020 and 2060. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the U.S. EPA-projected reductions is so great (even after accounting for VMT associated with planned growth) that MSAT emissions in the study area are likely to be lower in the future for both the No-Build and Build alternatives. Additionally, it should be noted that current scientific techniques, tools, and data

are not sufficient to accurately estimate human health impacts from transportation projects in a way that would be useful to decision-makers.

The Project would not change the traffic mix nor create or significantly alter major roadways in the area. Since the emission effects of this type of project are low, no difference in overall MSAT emissions between the Build and No-Build is expected.

4.3.5 Greenhouse Gas Emissions Analysis

When compared to existing conditions, long-term operational GHG emissions associated with vehicular traffic in the City would decrease as a function of future improvements to the vehicle fleet (i.e., increases in zero emissions and electric vehicles and low carbon fuels), despite increases in VMT and traffic volumes. GHG emissions impacts for the No-Build and Build Alternatives would be the same as the Project would not increase VMT, traffic volumes, or change the mix of vehicles in the area.

In addition, the RTP/SCS *Moving Forward Monterey Bay 2045* demonstrates that the Monterey Bay region will meet the State's GHG emissions targets by focusing housing and employment growth in urbanized areas; protecting sensitive habitat and open space; and investing in a transportation system that provides residents, workers and visitors with transportation options that are more effective and diverse.[16]

4.4 Cumulative/Regional/Indirect Effects

Effects that are not immediately related to the Project, but are caused indirectly by the Project, are referred to as indirect effects. Cumulative impacts are those effects that result from the incremental impact of the Project when added to other past, present, and reasonably near future actions or projects. Cumulative impacts are inclusive of the indirect effects.

The analysis, presented in Section 4.3, includes the cumulative and indirect travel demand impacts of the Project, and shows that the Build Alternative would have the same emissions as the No-Build Alternative and lower CO, VOC, NO_X, MSAT, and GHG emissions than the baseline scenario.

The CO and MSAT assessments can be considered indirect effect analyses because they look at air quality impacts attributable to the Project that would occur at a time in the future. Those assessments indicate that the potential for indirect effects associated with the Project would not be considerable. They demonstrate that in the future: (1) air quality impacts from CO will not cause or contribute to violations of the CO NAAQS; and (2) MSAT emissions from the Build Alternative would be the same as to the No-Build Alternative and lower than the baseline conditions.

O_3 and secondary PM are regional pollutants and should be considered cumulative in nature because they are formed by photochemical and chemical reactions over time in the atmosphere, unlike primary sources of PM that emit pollutants directly into the airshed. The Final EIR for *Moving Forward Monterey Bay 2045* addresses the regional and cumulative impacts from growth and transportation in the airshed, which include impacts from regional pollutants from existing transportation infrastructure.

[16] *Moving Forward Monterey Bay 2045*, Chapter 4. Association of Monterey Bay Area Governments. June, 2022.

5. Minimization Measures

Feasible short-term and long-term measures that, when incorporated into the Project, can eliminate, or substantially reduce Project emissions are listed below. The Project proponent would be responsible for implementing these measures.

5.1 Short-Term (Construction)

The construction contractor must comply with the Caltrans' Standard Specifications in Sections 13 – Water Pollution Control and 14-9 – Air Quality (2023). These specifications require implementation of the best management practices (BMPs) required by the air district, when feasible.

- Section 13 requires a Stormwater Pollution Prevention Plan (SWPPP) and use of best management practices (BMPs) that manage fugitive dust and material track-out from construction sites. Many of the SWPPP requirements and BMPs are the same as BAAQMD's basic controls for construction sites (see below).

- Section 14-9-02 specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances. The MBARD BMPs and emissions control measures for construction sites include:

    - Limit the area under construction at any one time.

    - Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure.

    - Prohibit all grading activities during periods of high wind (over 15 mph).

    - Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).

    - Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydro seed area.

    - Haul trucks shall maintain at least 2'0" of freeboard.

    - Cover all trucks hauling dirt, sand, or loose materials.

    - Plant tree windbreaks on the windward perimeter of construction projects if it is adjacent to open land.

    - Plant vegetative ground cover in disturbed areas as soon as possible.

- Cover inactive storage piles.
- Install wheel washers at the entrance to construction sites for all exiting trucks.
- Pave all roads on construction sites.
- Sweep streets if visible soil material is carried out from the construction site.
- Post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the Monterey Bay Unified Air Pollution Control District shall be visible to ensure compliance with Rule 402 (Nuisance).
- Limit the pieces of equipment used at any one time.
- Minimize the use of diesel-powered equipment (i.e., wheeled tractor, wheeled loader, roller) by using gasoline-powered equipment to reduce NOx emissions.
- Limit the hours of operation for heavy-duty equipment.
- Undertake project during non-ozone season (November 1 – April 30).

5.2 Long-Term (Operational)

The No Build and Build Alternatives would have lower VOC, CO, NO_X, MSAT, and GHG emissions when compared to existing/baseline conditions and higher PM_{10} and $PM_{2.5}$ emissions as PM emissions correlate more directly with VMT than with fuel use. GHG emissions would be lower, despite increases in VMT, because the future vehicle fleet includes more electric and fuel-efficient technologies. When compared to the No-Build Alternative, the Build Alternative would have the same VOC, NO_X, CO, PM_{10}, $PM_{2.5}$, MSAT, and GHG emissions due to the No Build and Build alternatives having the same VMT and traffic volumes. Given the finding that there would be no air quality impacts associated with operation of the Project, there are no avoidance or minimization measures required or recommended to specifically reduce operational air quality impacts or GHG emissions from the Project.

6. Conclusions

The City of San Juan Bautista proposes to construction of a 570-foot-long eastbound right turn lane including a 120-foot bay taper along the south side of SR 156 at The Alameda in San Juan Bautista (MP 2.9-3.1). The Project will replace an existing 8-foot shoulder with a 6-foot bike lane, 12-foot right turn lane and 4-foot shoulder for a net widening of 14 feet.

The short-term air quality impacts (i.e., emissions) from construction were estimated using the Cal-CET2021 model that estimated emissions from the roadway construction work. There were estimated at levels below the air district's CEQA significance thresholds. Minimization measures and/or BMPs consistent with Caltrans standard specifications are suggested to reduce construction-related emissions (Section 5.1) and would be required by the air district (MBARD).

When compared to baseline conditions, both the No Build and Build Alternative would have lower VOC, CO, NO_X, MSAT, and GHG emissions and higher PM_{10} and $PM_{2.5}$ emissions as PM emissions correlate more directly with VMT than with fuel use. GHG emissions would be lower than baseline conditions due to improvements in the vehicle fleet and fuels. Increases in PM_{10} and $PM_{2.5}$ emissions are not anticipated to cause or contribute to a violation of the NAAQS or CAAQS and were considered as part of the impacts associated with the area's RTP, *Moving Forward Monterey Bay 2045*.

When compared to the No-Build Alternative, the Build Alternative would have the same VOC, NO_X, CO, PM_{10}, $PM_{2.5}$, MSAT, and GHG emissions due to the No Build and Build alternatives having the same VMT and fleet mix. Therefore, no mitigation strategies for project operation are being proposed.

7. References

Association of Monterey Bay Area Goverments (2022) Moving Forward Monterey Bay 2045. 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy. June. https://www.ambag.org/sites/default/files/2023-04/REVISED2_AMBAG_MTP-SCS_Final_EntireDocument_PDFA_Updated041923.pdf

California Environmental Protection Agency and California Air Resources Board (Cal/EPA and ARB, 2005) Air quality and land use handbook: a community health perspective. April. Available at http://www.arb.ca.gov/ch/handbook.pdf.

California Department of Transportation (2012) Near-Road Nitrogen Dioxide Assessment. Final report, CTAQ-RT-12-270.09.02, August.

California Department of Transportation (2023) Standard Specifications. Prepared by the State of California Department of Transportation. Available at https://dot.ca.gov/programs/design/july-2023-ccs-standard-plans-and-standard-specifications.

Federal Highway Administration (2023) Updated Interim guidance update on mobile source air toxic analysis in NEPA documents. Available at https://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/msat/.

City of San Juan Bautista (2016). 404-408 The Alameda Fuel Station, Convenience Store and Quick Serve Restaurant Initial Study and Mitigated Negative Declaration. July 11, 2016.

Iowa State University. Iowa Environmental Mesonet, California ASOS, Napa County Airport. Wind Roses.. https://mesonet.agron.iastate.edu/sites/windrose.phtml?station=CVH&network=CA_ASOS

Monterey Bay Air Resources District (2008). CEQA Air Quality Guidelines. https://www.mbard.org/files/0ce48fe68/CEQA+Guidelines.pdf

South Coast Air Quality Management District (SCAQMD, 2014) Multiple Air Toxics Exposure Study: MATES IV draft report. Findings presented at the SCAQMD Governing Board Meeting, October 3.

U.S. Code of Federal Regulations: Title 40. Protection of Environment, Chapter I. Environmental Protection Angency, Subchapter C. Air Programs, Part 93. Determining Conformity of Federal Actions to State or Federal Implementation Plans, Subpart A. Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Developed, Funded or Approved Under Title 23 U.S.C. or the Federal Transit Laws. Accessed October 2020.

U.S. Environmental Protection Agency (1995) Compilation of air pollutant emission factors, AP-42. Vol. 1: stationary point and area sources. 5th ed. (January 1995). Report prepared by the Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, NC. Available at http://www.epa.gov/ttnchie1/ap42/.

8. Appendices

Appendix A – Cal-CET2021 Construction Emissions Calculation

PROJECT: SR 156 and The Alameda **DATE:** 11/7/2024

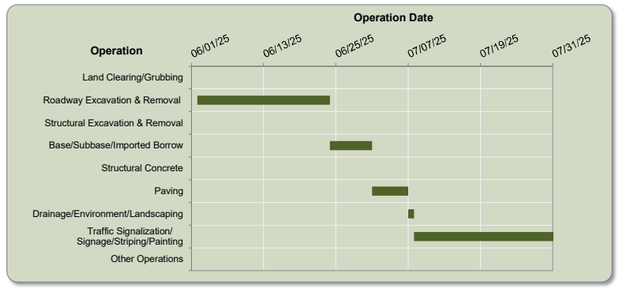
Required fields
Optional fields

PROJECT INFORMATION

Project Start Date (mm/dd/yy)	06/01/25	Project Type	Traffic Safety & Operations
Road Type	Highway	Construction Cost	$859,000
Project Length	0.2 (miles)	Estimated Working Days	44

Caltrans Construction Price Index		
2021 - 4th Quarter, last 12 months	82.10	The latest CPI should be available at the link below (web address is http://ppmoe.dot.ca.gov/des/oe/docs/CCI.pdf):
Latest 4th Quarter, last 12 months	83.5	Caltrans Construction Price Index

Operation	Start Dates (mm/dd/yy)	Length of Operations (working days)	Daily Disturbed Areas (acres) Optional Input	Daily Disturbed Areas (acres) Default	Mitigation Factors
Land Clearing/Grubbing	06/02/25			0.00	50%
Roadway Excavation & Removal	06/02/25	16		0.13	50%
Structural Excavation & Removal	06/24/25			0.00	50%
Base/Subbase/Imported Borrow	06/24/25	5		0.42	50%
Structural Concrete	07/01/25				
Paving	07/01/25	4			
Drainage/Environment/Landscaping	07/07/25	1			
Traffic Signalization/Signage/Striping/Painting	07/08/25	18			
Other Operations	08/01/25				



Total Working Days (calculated)	44	working days	

Painting and Asphalt Application

Painting	Water-Based Coating		(gallons)
	Solvent-Based Coating		(gallons)
Cutback Asphalt	Total Weight		(tons)
	Diluent Content	35	(%)

FLEET INFORMATION

Off-Road Engine Emission Standards	Default	
Are signal boards battery- or solar-powered?	Yes	
Distance per round-trip (heavy-duty trucks)	20	(miles)
Distance per round-trip (light-duty trucks)	0.46	(miles)
Diesel Sulfur Content	15	(ppmw)

Vehicle/Equipment Type	Land Clearing/ Grubbing	Roadway Excavation & Removal	Structural Excavation & Removal	Base/Subbase/ Imported Borrow	Structure Concrete	Paving	Drainage/Environment/ Landscaping	Traffic Signalization Signage	Other Operations		Distance per Round-Trip
On-Road Vehicles	total trips	total trips	total trips	total trips	total trips	total trips	total trips	total trips	# of round-trips		miles
Heavy-Duty Trucks	0	75	0	28	0	58	1	389	0		20
Light-Duty Trucks	0	820	0	519	0	1,116	19	15,737	0		0.46

	Land Clearing/ Grubbing		Roadway Excavation & Removal		Structural Excavation & Removal		Base/Subbase/ Imported Borrow		Structure Concrete		Paving		Drainage/Environment/ Landscaping		Traffic Signalization Signage		Other Operations				
	number of trucks	total engine-on hours	number of trucks	total engine-on hours	number of trucks	total engine-on hours	number of trucks	total engine-on hours	number of trucks	total engine-on hours	number of trucks	total engine-on hours	number of trucks	total engine-on hours	number of trucks	total engine-on hours	number of trucks	total engine-on hours	Load Factor	Emission Standards	Rated Power (hp)	Rated Power Default (hp)
Water Trucks	0	0	1	26	0	0	1	7	0	0	1	2	1	0	1	5		0	0.38	Default	Default ->	371
Off-Road Equipment	pieces of equipment	total engine-on hours	pieces of equipment	total engine-on hours	pieces of equipment	total engine-on hours	pieces of equipment	total engine-on hours	pieces of equipment	total engine-on hours	pieces of equipment	total engine-on hours	pieces of equipment	total engine-on hours	pieces of equipment	total engine-on hours	pieces of equipment	total engine-on hours	Load Factor	Emission Standards	Rated Power (hp)	Rated Power Default (hp)
Aerial Lifts	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	12		0	0.31	Default	Default ->	59
Bore/Drill Rigs	0	0	1	1	0	0	0	0	0	0	0	0	1	0	1	40		0	0.50	Default	Default ->	213
Cement & Mortar Mixers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	51		0	0.56	Default	Default ->	13
Commercial Turf Equipment	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0		0	0.45	Default	Default ->	20
Concrete/Industrial Saws	0	0	1	5	0	0	1	0	0	0	1	8	1	0	1	5		0	0.73	Default	Default ->	35
Cranes	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	9		0	0.29	Default	Default ->	249
Crawler Tractors/Dozers	0	0	1	18	0	0	1	8	0	0	1	0	1	0	1	1		0	0.43	Default	Default ->	228
Crushing/Processing Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0.78	Default	Default ->	21
Excavators	0	0	1	18	0	0	1	4	0	0	1	2	1	0	1	8		0	0.38	Default	Default ->	186
Graders	0	0	1	26	0	0	1	13	0	0	1	1	1	0	1	1		0	0.41	Default	Default ->	179
Light Commercial Air Compressors	0	0	1	1	0	0	1	0	0	0	1	0	1	0	1	28		0	0.48	Default	Default ->	34
Light Commercial Generator Sets	0	0	1	1	0	0	0	0	0	0	1	2	1	0	1	7		0	0.74	Default	Default ->	21
Light Commercial Pressure Washers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0.30	Default	Default ->	19
Light Commercial Pumps	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0.74	Default	Default ->	20
Light Commercial Welders	0	0	1	2	0	0	0	0	0	0	0	0	1	0	1	0		0	0.45	Default	Default ->	27
Off-Highway Tractors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0.44	Default	Default ->	130
Off-Highway Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0.38	Default	Default ->	371
Other Construction Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0.42	Default	Default ->	186
Other General Industrial Equipment	0	0	1	2	0	0	0	0	0	0	1	1	1	0	1	30		0	0.34	Default	Default ->	92
Pavers/Shoulder Backing/AC Dikes	0	0	1	1	0	0	1	2	0	0	1	22	1	0	1	33		0	0.42	Default	Default ->	125
Paving Equipment	0	0	1	3	0	0	1	2	0	0	1	21	1	0	1	7		0	0.36	Default	Default ->	131
Plate Compactors	0	0	1	1	0	0	1	1	0	0	1	1	1	0	1	0		0	0.43	Default	Default ->	13
Rollers	0	0	1	21	0	0	1	11	0	0	2	48	1	0	1	4		0	0.38	Default	Default ->	82
Rough Terrain Forklifts	0	0	1	0	0	0	1	0	0	0	1	0	1	0	1	11		0	0.40	Default	Default ->	96
Rubber Tire Dozers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0.40	Default	Default ->	302
Rubber Tire Loaders	0	0	1	18	0	0	1	4	0	0	1	3	1	0	1	4		0	0.36	Default	Default ->	227
Scrapers	0	0	1	30	0	0	1	13	0	0	1	0	1	0	0	0		0	0.48	Default	Default ->	376
Skid Steer Loaders	0	0	1	1	0	0	1	0	0	0	1	3	1	0	1	12		0	0.37	Default	Default ->	57
Surfacing Equipment	0	0	1	10	0	0	1	1	0	0	1	4	1	0	1	13		0	0.30	Default	Default ->	259
Sweepers/Scrubbers	0	0	1	6	0	0	1	3	0	0	1	12	1	0	1	5		0	0.46	Default	Default ->	66
Tampers/Rammers	0	0	1	1	0	0	1	0	0	0	1	0	1	0	1	2		0	0.43	Default	Default ->	13
Tractors/Loaders/Backhoes	0	0	1	18	0	0	1	4	0	0	1	4	1	0	1	19		0	0.37	Default	Default ->	102
Trenchers	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	12		0	0.50	Default	Default ->	83
Signal Boards	0	0	3	128	0	0	3	40	0	0	3	32	3	8	3	100250		0	0.82	Default	Default ->	13

Project Total Off-Road Equipment and On-Road Water Truck Engine-on Hours by Operation	0	338	0	115	0	169	10	100,572	0	

PROJECT: SR 156 and The Alameda **DATE:** 11/07/24

	Summary of Project Emissions and Consumption														
	TOG	ROG	CO	NOx	PM10	PM2.5	CO2	CH4	N2O	BC	HFC	CO_2e	Diesel Fuel	Gasoline Fuel	Electricity
Daily Average (lbs/day; metric tons CO_2e/day; gal fuel/day; kWh electricity/day)	0.584	0.543	2.970	3.872	1.229	0.359	1158	0.023	0.070	0.042	0.045	0.57	37	17	2.148
Maximum Daily Average (lbs/day; metric tons CO_2e/day; gal fuel/day; kWh electricity/day)	1.012	0.949	4.338	6.855	4.561	0.746	1585	0.030	0.110	0.092	0.078	0.79	47	31	3.653
Annual Average (tons/year; metric tons CO_2e/year; gal fuel/year; kWh electricity/year)	0.013	0.012	0.065	0.085	0.027	0.008	25	0.001	0.002	0.001	0.001	25	1,619	741	94.525

Summary by Source	Project Total Emissions and Consumption (tons; metric tons CQe; gal fuel; kWh electricity)														
Source	TOG	ROG	CO	NOx	PM10	PM2.5	CO2	CH4	N2O	BC	HFC	CO_2e	Diesel Fuel	Gasoline Fuel	Electricity
On-Road	0.001	0.001	0.018	0.017	0.000	0.000	16	0.000	0.001	0.000	0.001	16	748	741	94.525
Off-Road	0.012	0.011	0.048	0.069	0.006	0.006	10	0.000	0.000	0.001	-	9	870	-	-
Area-Wide Fugitive Dust	-	-	-	-	0.021	0.002	-	-	-	-	-	-	-	-	-
Painting and Asphalt Application	0.000	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-
Project Total	**0.013**	**0.012**	**0.065**	**0.085**	**0.027**	**0.008**	**25**	**0.001**	**0.002**	**0.001**	**0.001**	**25**	**1,619**	**741**	**94.525**

	Project Average Daily Emissions and Consumption (lbs/day; metric tons CQe/day; gal fuel/day; kWh electricity/day)														
	TOG	ROG	CO	NOx	PM10	PM2.5	CO2	CH4	N2O	BC	HFC	CO_2e	Diesel Fuel	Gasoline Fuel	Electricity
	0.584	0.543	2.970	3.872	1.229	0.359	1158	0.023	0.070	0.042	0.045	0.573	37	17	2.148
Project Maximum[a]	**1.012**	**0.949**	**4.338**	**6.855**	**4.561**	**0.746**	**1585**	**0.030**	**0.110**	**0.092**	**0.078**	**0.793**	**47**	**31**	**3.653**

[a] The overall project maximum average daily value is the largest of either a single operation's average daily value or, when operations overlap in time, the maximum of summations of average daily values for overlapping operation(s) (see User Guide for more detail). Contributions to the project maximum average daily value by operation are indicated by bold font.

Summary by Operation	Total Emissions and Consumption by Operation (tons; metric tons CQe; gal fuel; kWh electricity)														
Project Phases	TOG	ROG	CO	NOx	PM10	PM2.5	CO2	CH4	N2O	BC	HFC	CO_2e	Diesel Fuel	Gasoline Fuel	Electricity
Land Clearing/Grubbing	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
Roadway Excavation & Removal	0.004	0.004	0.025	0.026	0.013	0.003	6	0.000	0.000	0.000	0.000	6	459	90	14.640
Structural Excavation & Removal	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
Base/Subbase/Imported Borrow	0.002	0.002	0.011	0.010	0.011	0.002	2	0.000	0.000	0.000	0.000	2	176	36	5.346
Structure Concrete	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
Paving	0.002	0.002	0.006	0.014	0.001	0.001	3	0.000	0.000	0.000	0.000	3	189	62	8.644
Drainage/Environment/Landscaping	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	3	1	0.142
Traffic Signalization/Signage/Striping/Painting	0.005	0.005	0.023	0.035	0.002	0.002	14	0.000	0.001	0.000	0.001	14	792	552	65.752
Other Operation	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
Total	**0.013**	**0.012**	**0.065**	**0.085**	**0.027**	**0.008**	**25**	**0.001**	**0.002**	**0.001**	**0.001**	**25**	**1,619**	**741**	**94.525**

	Average Daily Emissions and Consumption by Operation (lbs/day; metric tons CQe/day; gal fuel/day; kWh electricity/day)														
	TOG	ROG	CO	NOx	PM10	PM2.5	CO2	CH4	N2O	BC	HFC	CO_2e	Diesel Fuel	Gasoline Fuel	Electricity
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.521	0.487	3.146	3.267	1.573	0.378	761	0.020	0.036	0.041	0.018	0.370	29	6	0.915
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.659	0.615	4.338	4.166	4.561	0.746	939	0.026	0.041	0.024	0.021	0.451	35	7	1.069
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	1.012	0.949	2.977	6.855	0.510	0.500	1370	0.030	0.078	0.092	0.048	0.683	47	16	2.161
	0.065	0.060	0.186	0.389	0.029	0.028	88	0.002	0.005	0.006	0.003	0.044	3	1	0.142
	0.553	0.509	2.588	3.859	0.225	0.220	1585	0.024	0.110	0.039	0.078	0.793	44	31	3.653
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
Highest across Operations	1.012	0.949	4.338	6.855	4.561	0.746	1585	0.030	0.110	0.092	0.078	0.793	47	31	3.653

Summary by Year	Total Emissions and Consumption by Year (tons; metric tons CQe; gal fuel; kWh electricity)														
Year	TOG	ROG	CO	NOx	PM10	PM2.5	CO2	CH4	N2O	BC	HFC	CO_2e	Diesel Fuel	Gasoline Fuel	Electricity
2015	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2016	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2017	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2018	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2019	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2020	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2021	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2022	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2023	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2024	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2025	0.013	0.012	0.065	0.085	0.027	0.008	25	0.001	0.002	0.001	0.001	25	1,619	741	94.525
2026	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2027	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2028	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2029	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2030	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2031	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2032	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2033	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2034	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2035	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2036	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2037	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2038	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2039	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2040	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2041	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2042	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2043	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2044	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2045	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2046	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2047	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2048	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2049	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
2050	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0	-	-	-
Total	**0.013**	**0.012**	**0.065**	**0.085**	**0.027**	**0.008**	**25**	**0.001**	**0.002**	**0.001**	**0.001**	**25**	**1,619**	**741**	**94.525**
Average Emissions and Consumption per Year (tons/year; metric tons CQe/year; gal fuel/year; kWh electricity/year)															
Summary	**0.013**	**0.012**	**0.065**	**0.085**	**0.027**	**0.008**	**25**	**0.001**	**0.002**	**0.001**	**0.001**	**25**	**1,619**	**741**	**94.525**

	Average Daily Emissions and Consumption by Year (lbs/day; metric tons CQe/day; gal fuel/day; kWh electricity/day)														
	TOG	ROG	CO	NOx	PM10	PM2.5	CO2	CH4	N2O	BC	HFC	CO_2e	Diesel Fuel	Gasoline Fuel	Electricity
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.584	0.543	2.970	3.872	1.229	0.359	1158	0.023	0.070	0.042	0.045	0.573	37	17	2.148
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	-	-	-
Average Emissions and Consumption per Day (lbs/day; metric tons CQe/day; gal fuel/day; kWh electricity/day)															
0.584	**0.543**	**2.970**	**3.872**	**1.229**	**0.359**	**1158**	**0.023**	**0.070**	**0.042**	**0.045**	**0.573**	**37**	**17**	**2.148**

Special-Status Species with Potential to Occur in the Project Vicinity

C

APPENDIX

Appendix C Special-Status Plant Species with Potential to Occur in the Project Vicinity

Species	Status (Federal/State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
Alkali milk-vetch *(Astragalus tener* var. *tener)*	--/--/1B.2	Alkaline sites in playas, valley and foothill grassland (on adobe clay), and vernal pools; elevation 1-60m. Blooming Period: March - June	Unlikely. Suitable habitat not found at the project site.
Anderson's manzanita *(Arctostaphylos andersonii)*	--/--/1B.2	Broadleaved upland forest, chaparral, and North Coast coniferous forest. Known only from the Santa Cruz Mountains. Prefers open sites in redwood forest; elevation 180-800m. Blooming Period: November - April	Unlikely. Suitable habitat not found at the project site.
California alkali grass *(Puccinellia simplex)*	--/--/1B.2	Meadows and seeps, chenopod scrub, valley and foothill grasslands, vernal pools. Alkaline, vernally mesic. Sinks, flats, and lake margins; elevation 1-915m. Blooming Period: March - May	Unlikely. Suitable habitat not found at the project site.
Choris' popcorn-flower *(Plagiobothrys chorisianus* var. *chorisianus)*	--/--/1B.2	Chaparral, coastal scrub, coastal prairie, mesic sites; elevation 15-100m. Blooming Period: March - June	Unlikely. Suitable habitat not found at the project site.
Congdon's tarplant *(Centromadia parryi* spp. *congdonii)*	--/--/1B.1	Valley and foothill grassland (alkaline); elevation 1-230m. Known to occur on various substrates, and in disturbed and ruderal (weedy) areas. Blooming Period: June - November	Unlikely. Focused surveys conducted for this species were negative.
Contra Costa goldfields *(Lasthenia conjugens)*	FE/--/1B.1	Wet areas in cismontane woodland, playas (alkaline), valley and foothill grassland, and vernal pools; elevation 0-470m. Blooming Period: March - June	Unlikely. Suitable habitat not found at the project site.
Coyote ceanothus *(Ceanothus ferrisiae)*	FE/--/1B.1	Serpentine sites in chaparral, coastal scrub, and valley and foothill grassland; elevation 120-460m. Blooming Period: January - May	Unlikely. Suitable habitat not found at the project site.
Eastwood's goldenbush *(Ericameria fasciculata)*	--/--/1B.1	Closed cone coniferous forest, chaparral (maritime), coastal dunes, and coastal scrub/sand; elevation 30 - 275 meters. Blooming Period: July - October	Unlikely. Suitable habitat not found at the project site.
Fort Ord spineflower *(Chorizanthe minutiflora)*	--/--/1B.2	Coastal scrub, maritime chaparral, sandy openings; elevation 60-145m. Blooming Period: April - July	Unlikely. Suitable habitat not found at the project site.
Fragrant fritillary *(Fritillaria liliacea)*	--/--/1B.2	Coastal scrub, valley and foothill grassland, and coastal prairie. Often on serpentine; various soils reported though usually clay in grassland; elevation 3-410m. Blooming Period: February - April	Unlikely. Suitable habitat not found at the project site.
Gabilan Mountains manzanita *(Arctostaphylos gabrielensis)*	--/--/1B.2	Chaparral, cismontane woodland, granitic substrates; elevation 300-700m. Blooming Period: March	Unlikely. Suitable habitat not found at the project site.
Hairless popcorn flower *(Plagiobothrys glaber)*	--/--/1A	Meadows and seeps (alkaline), marshes and swamps (coastal salt); elevation 15-180m. Blooming Period: March - May	Unlikely. Suitable habitat not found at the project site.

Species	Status (Federal/State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
Hall's tarplant *(Deinandra halliana)*	--/--/1B.1	Cismontane woodland, chenopod scrub, valley and foothill grassland. Variety of substrates, including clay, sand, and alkaline soils; elevation 300-950m. Blooming Period: April - May	Unlikely. Suitable habitat not found at the project site.
Hickman's onion *(Allium hickmanii)*	--/--/1B.2	Closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland, coastal prairie, sandy loam, damp ground and vernal swales; elevation 20-200m. Blooming Period: April - May	Unlikely. Suitable habitat not found at the project site.
Hooker's manzanita *(Arctostaphylos hookeri* ssp. *hookeri)*	--/--/1B.2	Sandy soils in coastal scrub, chaparral, and closed-cone forest habitats; evergreen; elevation 45-215m. Blooming Period: February - April	Unlikely. Suitable habitat not found at the project site.
Hoover's button-celery *(Eryngium aristulatum* var. *hooveri)*	--/--/1B.1	Vernal pools. Alkaline depressions, roadside ditches, and other wet places near the coast; elevation 5-45m. Blooming Period: July	Unlikely. Suitable habitat not found at the project site.
Indian Valley bush-mallow *(Malacothamnus aboriginum)*	--/--/1B.2	Chaparral and cismontane woodland; rocky, often burned areas. Prefers granitic outcrops and sandy bare soil; elevation 150-1700m. Blooming Period: April - October	Unlikely. Suitable habitat not found at the project site.
Kellogg's horkelia *(Horkelia cuneata* ssp. *sericea)*	--/--/1B.1	Closed-cone coniferous forest, maritime chaparral, coastal scrub, sandy or gravelly openings; elevation 10-200m. Blooming Period: April - September	Unlikely. Suitable habitat not found at the project site.
Legenere *(Legenere limosa)*	--/--/1B.1	In beds of vernal pools; elevation 1-880m. Blooming Period: April - June	Unlikely. Suitable habitat not found at the project site.
Loma Prieta hoita *(Hoita strobilina)*	--/--/1B.1	Wet areas on serpentine substrate in chaparral, cismontane woodland, and riparian woodland; elevation 30-860m. Blooming Period: May - October	Unlikely. Suitable habitat not found at the project site.
Marsh microseris *(Microseris paludosa)*	--/--/1B.2	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland; elevation 5-300m. Blooming Period: April - June	Unlikely. Suitable habitat not found at the project site.
Marsh sandwort *(Arenaria paludicola)*	FE/SE/1B.1	Sandy openings in freshwater or brackish marshes and swamps; elevation 3-170m. Blooming Period: May - August	Unlikely. Suitable habitat not found at the project site.
Monterey gilia *(Gilia tenuiflora* ssp. *arenaria)*	FE/ST/1B.2	Maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, sandy openings; elevation 0-45m. Blooming Period: April - June	Unlikely. Suitable habitat not found at the project site.
Monterey spineflower *(Chorizanthe pungens* var. *pungens)*	FT/--/1B.2	Sandy openings in maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland; elevation 3-450m. Blooming Period: April - June	Unlikely. Suitable habitat not found at the project site.
Most beautiful jewel-flower *(Streptanthus albidus* ssp. *peramoenus)*	--/--/1B.2	Chaparral, valley and foothill grassland, and cismontane woodland; serpentine outcrops, on ridges and slopes; elevation 120-730m. Blooming Period: April - June	Unlikely. Suitable habitat not found at the project site.

Species	Status (Federal/State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
Pajaro manzanita *(Arctostaphylos pajaroensis)*	--/--/1B.1	Sandy soils in chaparral habitat; evergreen; elevation 30-760m. Blooming Period: December - March	Unlikely. Suitable habitat not found at the project site.
Pine rose *(Rosa pinetorum)*	--/--/1B.2	Closed-cone coniferous forest; elevation 2-300m. Blooming Period: May - July	Unlikely. Suitable habitat not found at the project site.
Pink creamsacs *(Castilleja rubicundula* ssp. *rubicundula)*	--/--/1B.2	Chaparral, meadows and seeps, and valley and foothill grassland. Openings in chaparral or grasslands on serpentine soils; elevation 20-900m. Blooming Period: April - June	Unlikely. Suitable habitat not found at the project site.
Pink Johnny-nip *(Castilleja ambigua* var. *insalutata)*	--/--/1B.1	Coastal bluff scrub, coastal prairie. Wet or moist coastal strand or scrub habitats; 3-135m elevation. Blooming Period: May - August	Unlikely. Suitable habitat not found at the project site.
Pinnacles buckwheat *(Eriogonum nortonii)*	--/--/1B.3	Sandy sites in chaparral and valley and foothill grassland, often on recent burns; elevation 300-975m. Blooming Period: May - June	Unlikely. Suitable habitat not found at the project site.
Prostrate vernal pool navarretia *(Navarretia prostrata)*	--/--/1B.1	Coastal scrub, valley and foothill grassland, and vernal pools. Alkaline soils in grassland, or in vernal pools; elevation 15-700m. Blooming Period: April - July	Unlikely. Suitable habitat not found at the project site.
Round-leaved filaree *(California macrophylla)*	--/--/1B.2	Clay sites in cismontane woodland, and valley and foothill grassland; elevation 15-1200m. Blooming Period: March - May	Unlikely. Suitable habitat not found at the project site.
Saline clover *(Trifolium hydrophilum)*	--/--/1B.2	Marshes and swamps, valley and foothill grassland, and vernal pools. Prefers wet, alkaline sites; elevation 0-300m. Blooming Period: April - June	Unlikely. Suitable habitat not found at the project site.
San Francisco popcornflower *(Plagiobothrys diffusus)*	--/SE/1B.1	Valley and foothill grassland, and coastal prairie. Historically from grassy slopes with marine influence; elevation 60-485m. Blooming Period: March - June	Unlikely. Suitable habitat not found at the project site.
San Joaquin spearscale *(Atriplex joaquinana)*	--/--/1B.2	Alkaline sites in chenopod scrub, meadows and seeps, playas, and valley and foothill grassland; elevation 1-320m. Blooming Period: April - October	Unlikely. Suitable habitat not found at the project site.
San Joaquin wooly-threads *(Monolopia congdonii)*	FE/--/1B.2	Chenopod scrub and valley and foothill grassland. Alkaline or loamy plains, sandy soils, often with grasses and within chenopod scrub; elevation 60-800m. Blooming Period: February - May	Unlikely. Suitable habitat not found at the project site.
Sand-loving wallflower *(Erysimum ammophilum)*	--/--/1B.2	Maritime chaparral, coastal dunes, coastal scrub, sandy openings; elevation 0 – 60m. Blooming Period: February - June	Unlikely. Suitable habitat not found at the project site.
Sandmat manzanita *(Arctostaphylos pumila)*	--/--/1B.2	Closed cone coniferous forest, maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, sandy openings; elevation 30-730m. Blooming Period: February - May	Unlikely. Suitable habitat not found at the project site.

Species	Status (Federal/State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
Santa Cruz clover *(Trifolium buckwestiorum)*	--/--/1B.1	Broadleaved upland forest, cismontane woodland, and coastal prairie; prefers moist grassland and gravelly margins; elevation 105-610m. Blooming Period: April - October	Unlikely. Suitable habitat not found at the project site.
Santa Cruz tarplant *(Holocarpha macradenia)*	FT/SE/1B.1	Coastal prairie, coastal scrub, and valley and foothill grassland; often on clay or sandy soils; elevation 10-220m. Blooming Period: June - October	Unlikely. Suitable habitat not found at the project site.
Seaside bird's-beak *(Cordylanthus rigidus* ssp. *littoralis)*	--/SE/1B.1	Closed-cone coniferous forest, maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, sandy often disturbed sites; elevation 0-215m. Blooming Period: May - October	Unlikely. Suitable habitat not found at the project site.
Toro manzanita *(Arctostaphylos montereyensis)*	--/--/1B.2	Maritime chaparral, cismontane woodland, coastal scrub, sandy; elevation 30-730m. Blooming Period: February – March	Unlikely. Suitable habitat not found at the project site.
Vernal pool bent grass *(Agrostis lacuna-vernalis)*	--/--/1B.1	Vernal pools (mima mounds); elevation 115-145m.	Unlikely. Suitable habitat not found at the project site.
Woodland woollythreads *(Monolopia gracilens)*	--/--/1B.2	Serpentine, open sites in broadleaved upland forest, chaparral, cismontane woodland, North Coast coniferous forest, and valley and foothill grassland; elevation 100-1200m. Blooming Period: March - July	Unlikely. Suitable habitat not found at the project site.
Yadon's rein orchid *(Piperia yadonii)*	FE/--/1B.1	Sandy sites in coastal bluff scrub, closed cone coniferous forest, maritime chaparral; elevation 10-510m. Blooming Period: May - August	Unlikely. Suitable habitat not found at the project site.

SOURCE: CDFW 2024, CNPS 2024

NOTE: Status Codes:

Federal (USFWS)

FE: Listed as Endangered under the Federal Endangered Species Act.

FT: Listed as Threatened under the Federal Endangered Species Act.

FC: A Candidate for listing as Threatened or Endangered under the Federal Endangered Species Act.

FSC: Species of Special Concern.

FD: Delisted under the Federal Endangered Species Act.

State (CDFW)

SE: Listed as Endangered under the California Endangered Species Act.

ST: Listed as Threatened under the California Endangered Species Act.

SR: Listed as Rare under the California Endangered Species Act.

SC: A Candidate for listing as Threatened or Endangered under the California Endangered Species Act.

SSC: Species of Special Concern.

SFP: Fully Protected species under the California Fish and Game Code.

SD: Delisted under the California Endangered Species Act.

CNPS Rare Plant Ranks and Threat Code Extensions

1B: Plants that are considered Rare, Threatened, or Endangered in California and elsewhere.

2B: Plants that are considered Rare, Threatened, or Endangered in California, but more common elsewhere.

.1: Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat).

.2: Fairly endangered in California (20-80% occurrences threatened).

.3: Not very endangered in California (<20% of occurrences threatened or no current threats known).

Appendix C Special-Status Wildlife Species with Potential to Occur in the Project Vicinity

Species	Status (Federal/State)	Suitable Habitat Description	Potential to Occur on Project Site
American badger *(Taxidea taxus)*	--/SSC	Most abundant in drier, open stages of most shrub, forest, and herbaceous habitats. Need sufficient food and open, uncultivated ground with friable soils to dig burrows. Prey on burrowing rodents.	Unlikely. Suitable habitat not found at the project site.
Bank swallow *(Riparia riparia)*	--/ST	Highly colonial species that nests in alluvial soils along rivers, streams, lakes, and ocean coasts. Nesting colonies only occur in vertical banks or bluffs of friable soils at least one meter tall, suitable for burrowing with some predator deterrence values. Breeding colony present in Salinas River.	Unlikely. Suitable habitat not found at the project site.
Big-eared kangaroo rat *(Dipodomys venustus elephantinus)*	--/SSC	Chaparral-covered slopes of the southern part of the Gabilan Range, in the vicinity of the Pinnacles. Forages under shrubs and in the open. Burrows for cover and for nesting.	Unlikely. Suitable habitat not found at the project site.
Blunt-nosed leopard lizard *(Gambelia sila)*	FE/SE	Resident of sparsely vegetated alkali and desert scrub habitats, in areas of low topographic relief. Seeks cover in mammal burrows, under shrubs or structures such as fence posts.	Unlikely. Suitable habitat not found at the project site
Burrowing owl *(Athene cunicularia)*	--/SSC, SC	Open, dry, annual or perennial grasslands, desert, or scrubland, with available small mammal burrows.	Low potential. Marginal quality grassland habitat with small mammal burrows present on the project site.
California brackishwater snail *(mimic tryonia)* *(Tryonia imitator)*	--/SSC	Aquatic, found on rocks and in gravel of riffles in cool, swift, clear streams.	Unlikely. Suitable habitat not found at the project site.
California condor *(Gymnogyps californianus)*	FE/SE	Requires vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Deep canyons containing clefts in the rocky walls provide nesting sites. Forages up to 100 miles from roost/nest.	Unlikely. Suitable habitat not found at the project site.
California giant salamander *(Anodonta californiensis)*	--/SSC	Known from wet coastal forests near streams ad seeps from Mendocino County south to Monterey County and east to Napa County. Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes.	Unlikely. Suitable habitat not found at the project site.
California horned lark *(Eremophila alpestris actia)*	--/SSC	Coastal regions, chiefly from Sonoma County to San Diego County, also within the main part of the San Joaquin Valley and east to the foothills. Prefers short-grass prairie, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	Unlikely. Suitable habitat not found at the project site.
California linderiella *(Linderiella occidentalis)*	FSC/--	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. Water in the pools typically has very low alkalinity, conductivity, and total dissolved solids.	Unlikely. Suitable habitat not found at the project site.

Species	Status (Federal/State)	Suitable Habitat Description	Potential to Occur on Project Site
California red-legged frog *(Rana draytonii)*	FT/SSC	Rivers, creeks, and stock ponds with pools and overhanging vegetation. Requires dense, shrubby or emergent riparian vegetation, and prefers short riffles and pools with slow-moving, well-oxygenated water. Needs upland habitat to aestivate (remain dormant during dry months) in small mammal burrows, cracks in the soil, or moist leaf litter.	Unlikely. There are no known occurrences of California red-legged frog in the City of San Juan Bautista. The closest known occurrences to the proposed project are (1) Occurrence Number 433 from 2001, located about 2.6 miles southeast of the project at a pond (CDFW 2024a); and (2) Occurrence Number 483 from 2001, located about 3.1 miles north of the project BSA at a large perennial stockpond associated with the San Benito River and surrounded by rushes and willows along the edges (CDFW 2024a). Similar suitable habitats not present at project site.
California Ridgway's rail *(Rallus obsoletus obsoletus)*	FE/SE	Found in saltwater and brackish marshes, traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud-bottomed sloughs.	Unlikely. Suitable habitat not found at the project site.
California tiger salamander *(Ambystoma californiense)*	FT/ST	Grasslands and oak woodlands near seasonal pools and stock ponds in central and coastal California. Needs upland habitat to aestivate (remain dormant during dry months) in small mammal burrows, cracks in the soil, or moist leaf litter. Requires seasonal water sources that persist into late March for breeding habitat.	Low Potential. Species known to occur within 1.1 miles of the project site.
Coast Range newt *(Taricha torosa)*	--/SSC	Coastal drainages; lives in terrestrial habitats and can migrate over 1 km to breed in ponds, reservoirs, and slow-moving streams.	Unlikely. Suitable habitat not found at the project site.
Cooper's hawk *(Accipter cooperii)*	--/SSC	Oak or riparian woodlands.	Low Potential. Species known to occur in project vicinity
Foothill yellow-legged frog *(Rana boylii)*	--/SSC	Partly shaded, shallow streams and riffles with rocky substrate in a variety of habitats. Requires at least some cobble-sized substrate for egg-laying and 15 weeks of available water to attain metamorphosis.	Unlikely. Suitable habitat not found at the project site.
Golden eagle *(Aquila chrysaetos)*	--/SFP	Rolling foothill mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range. Also uses large trees in open areas.	Unlikely. Suitable habitat not found at the project site.
Hoary bat *(Lasiurus cinereus)*	--/SSC	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	Unlikely. Suitable habitat not found at the project site.

Species	Status (Federal/State)	Suitable Habitat Description	Potential to Occur on Project Site
Least Bell's vireo *(Vireo bellii pusillus)*	FE/SE	Summer resident of southern and central California in riparian habitats below 2,000 feet in elevation. Often nests in large shrubs, along margins of bushes or on twigs projecting into pathways.	Unlikely. Suitable habitat not found at the project site.
Marbled murrelet *(Brachyramphus marmoratus)*	FT/SE	Feeds near shore, and nests up to six miles inland from coast from Half Moon Bay to Santa Cruz in old-growth redwood forests, often in Douglas fir trees.	Unlikely. Suitable habitat not found at the project site.
Merlin *(Falco columbarius)*	--/SC	Seacoast, tidal estuaries, open woodlands, savannahs, edges of grassland and deserts, farms and ranches, clumps of trees or windbreaks are required for roosting in open county.	Unlikely. Suitable habitat not found at the project site.
Monarch butterfly *(Danaus plexippus)*	FCT/SC	Winter roost sites. Wind protected tree groves (Eucalyptus, Monterey pine, cypress) with nectar and water sources nearby.	Unlikely. Suitable habitat not found at the project site.
Monterey dusky-footed woodrat *(Neotoma fuscipes luciana)*	--/SSC	Forest habitats of moderate canopy and moderate to dense understory, as well as in chaparral habitats. Nests constructed of grass, leaves, sticks, feathers, etc. Population may be limited by availability of nest materials.	Unlikely. Suitable habitat not found at the project site.
Northern california legless lizard *(Anniella pulchra)*	--/SSC	Sandy or loose loamy soils under sparse vegetation, moist soils. Anniella pulchra is traditionally split into two subspecies: *A. pulchra pulchra* (silvery legless lizard) and *A. pulchra nigra* (black legless lizard), but these subspecies are typically no longer recognized.	Unlikely. Suitable habitat not found at the project site.
Obscure bumble bee *(Bombus caliginosus)*	--/SCE	Meadows and grasslands with flowering plants. May be found in some natural areas within urban environments. Require flowering plants that bloom and provide adequate nectar and pollen throughout the colony's flight period from as early as February to late November.	Unlikely. Suitable habitat not found at the project site.
Pallid bat *(Antrozous pallidus)*	--/SSC	Deserts, grasslands, scrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures.	Unlikely. Suitable habitat not found at the project site.
Pinnacles optioservus riffle beetle *(Optioservus canus)*	--/--	Aquatic, found on rocks and in gravel of riffles in cool, swift, clear streams.	Unlikely. Suitable habitat not found at the project site.
Redwood shoulderband (snail) *(Helminthoglypta sequoicola consors)*	--/--	Known only from south slope of San Juan Grade, near foothills, 8 miles northwest of Salinas.	Unlikely. Suitable habitat not found at the project site.
Salinas harvest mouse *(Reithrodontomys megalotis distichlis)*	--/--	Known only from the Monterey Bay region. Occurs in fresh and brackish water wetlands and probably in the adjacent uplands around the mouth of the Salinas River.	Unlikely. Suitable habitat not found at the project site.
San Francisco garter snake *(Thamnophis sirtalis tetrataenia)*	FE/SE, SFP	Typically found in the vicinity of freshwater marshes, ponds and slow-moving streams in San Mateo County and extreme northern Santa Cruz County. Prefers dense cover and water depths of at least one foot. Upland areas near water are also very important.	Unlikely. Suitable habitat not found at the project site.

Species	Status (Federal/State)	Suitable Habitat Description	Potential to Occur on Project Site
San Joaquin coachwhip *(Masticophis flagellum ruddocki)*	--/SSC	Open, dry habitats with little or no tree cover. Found in valley grassland and saltbush scrub in the San Joaquin Valley. Requires mammal burrows for refuge and oviposition sites.	Unlikely. Suitable habitat not found at the project site.
San Joaquin kit fox *(Vulpes macrotis mutica)*	FE/ST	Annual grasslands or grassy open stages with scattered shrubby vegetation. Needs loose-textured sandy soils for burrowing, and suitable prey base.	Unlikely. Suitable habitat not found at the project site.
Santa Cruz black salamander *(Aneides flavipunctatus niger)*	--/SSC	Mixed deciduous and coniferous woodlands and coastal grasslands in San Mateo, Santa Cruz, and Santa Clara Counties. Adults found under rocks, talus, and damp woody debris.	Unlikely. Suitable habitat not found at the project site.
Santa Cruz kangaroo rat *(Dipodomys venustus venustus)*	--/--	Silverleaf manzanita mixed chaparral in the Zayante sand hills ecosystem of the Santa Cruz Mountains. Needs soft, well-drained sand.	Unlikely. Suitable habitat not found at the project site.
Santa Cruz long-toed salamander *(Ambystoma macrodactylum croceum)*	FE/SE, SFP	Wet meadows near sea level in a few restricted locales in Santa Cruz and Monterey Counties. Aquatic larvae prefer shallow (<12 inches) water; use clumps of vegetation or debris for cover. Adults use mammal burrows.	Unlikely. Suitable habitat not found at the project site.
Southwestern pond turtle *(Actinemys pallida)*	FCT/SSC	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs basking sites (such as rocks or partially submerged logs) and suitable upland habitat for egg-laying (sandy banks or grassy open fields).	Low Potential. Suitable movement corridor habitat seasonally present in tributary to San Juan Creek, but no suitable deep, ponded water (i.e., plunge-pool) habitat was observed in proposed project impact areas.
Steelhead *(Oncorhynchus mykiss irideus)*	FT/--	Coastal stream with clean spawning gravel. Requires cool water and pools. Needs migratory access between natal stream and ocean.	Unlikely. Suitable habitat not found at the project site.
Swainson's hawk *(Buteo swainsoni)*	--/ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas, such as grasslands or agricultural fields supporting rodent populations.	Unlikely. Suitable habitat not found at the project site.
Vernal pool fairy shrimp *(Branchinecta lynchi)*	FT/--	Endemic to the grasslands of the Central Valley, Central Coast Mtns., and South Coast Mtns. in astatic rain-filled pools. Inhabits small, clear-water sandstone depression pools and grass swale, earth slump, or basalt-flow depression pools.	Unlikely. Suitable habitat not found at the project site.
Townsend's big-eared bat *(Corynorhinus townsendii)*	--/SSC	Inhabits a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Unlikely. Suitable habitat not found at the project site.
Tricolored blackbird *(Agelaius tricolor)*	--/SE	Areas adjacent to open water with protected nesting substrate, which typically consists of dense, emergent freshwater marsh vegetation.	Unlikely. Suitable habitat not found at the project site.
Western bumble bee (*Bombus occidentalis*)	--/CE	Meadows and grasslands with flowering plants; can also be found in natural areas within urban environments.	Unlikely. Suitable habitat not found at the project site.

Species	Status (Federal/State)	Suitable Habitat Description	Potential to Occur on Project Site
Western mastiff bat *(Eumops perotis californicus)*	--/SSC	Many open, semi-arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	Unlikely. Suitable habitat not found at the project site.
Western red bat *(Lasiurus blossevillii)*	--/--	Roosts primarily in trees, 2-40 feet above the ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	Unlikely. Suitable habitat not found at the project site.
Western spadefoot *(Spea hammondii)*	--/SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands, breeds in winter and spring (January - May) in quiet streams and temporary pools.	Unlikely. Suitable habitat not found at the project site.
Western yellow-billed cuckoo *(Coccyzus americanus)*	FC/SE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Unlikely. Suitable habitat not found at the project site
White-tailed kite *(Elanus leucurus)*	--/SFP	Rolling foothills and valley margins with scattered oaks, and river bottomlands or marshes next to deciduous woodlands. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Low Potential. Species known to occur in project vicinity
Yellow rail *(Corturnicops noveboracensis)*	--/SSC	Summer resident in eastern Sierra Nevadas, prefers freshwater marshlands.	Unlikely. Suitable habitat not found at the project site.

SOURCE: CDFW 2023

NOTE: Status Codes:

Federal (USFWS)

FE: Listed as Endangered under the Federal Endangered Species Act.

FT: Listed as Threatened under the Federal Endangered Species Act.

FC: A Candidate for listing as Threatened or Endangered under the Federal Endangered Species Act.

FSC: Species of Special Concern.

FD: Delisted under the Federal Endangered Species Act.

State (CDFW)

SE: Listed as Endangered under the California Endangered Species Act.

ST: Listed as Threatened under the California Endangered Species Act.

SR: Listed as Rare under the California Endangered Species Act.

SC: A Candidate for listing as Threatened or Endangered under the California Endangered Species Act.

SSC: Species of Special Concern.

SFP: Fully Protected species under the California Fish and Game Code.

SD: Delisted under the California Endangered Species Act.

Vibration Study

D

APPENDIX

Charles M. Salter
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10 January 2020

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Subject: **The Alameda Right Turn Lane, San Juan Bautista, CA**
Traffic and Construction Vibration
Salter Project: 20-0010

Dear Harvey:

We understand that the project involves adding a right turn lane to eastbound traffic on Highway 156 to allow traffic to slow town when turning right onto The Alameda (southbound). The concern is vibration at the nearby residence at 315 The Alameda, which is on the historic registry. There are concerns of construction and traffic vibration impact on the building structure. This letter summarizes our assessment of each.

SUMMARY

Vibration from project construction and future traffic is not expected to substantially increase vibration levels above the proposed criteria at the existing historic residence at 315 The Alameda. Vibratory roller compaction or similar vibration-generating construction operations should not occur within 50 feet of the residence.

PROJECT SITE

The historic survey documents describe the home (now used as a bed & breakfast) as a wood-framed structure on a stone foundation. The site layout is depicted in the image below.

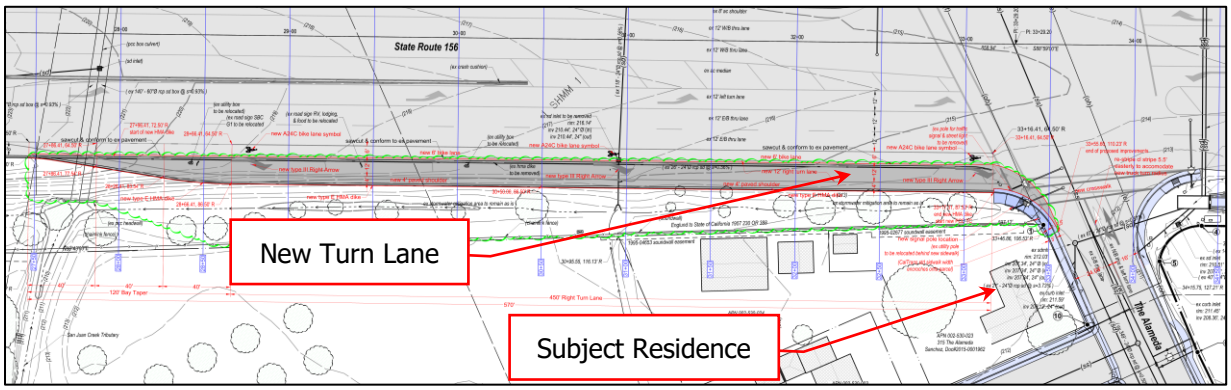

Image 1: Project site layout

VIBRATION BENCHMARK/CRITERIA

We are not aware of any vibration criteria for this project. Therefore, we are offering benchmarks based on published information and our experience. The Caltrans "Transportation and Construction Vibration Guidance Manual" (TCVGM, September 2013) includes a survey of several published vibration studies and summary guidelines for the assessment of construction vibration. We are referencing these for the evaluation of construction vibration. They relate to potential damage. Table 1 below is an excerpt from the Caltrans manual.

Table 1: Guideline Vibration Damage Potential Threshold Criteria (Maximum PPV, in/sec)

Structure and Condition	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12 PPV	0.08 PPV
Fragile buildings	**0.2 PPV**	**0.1 PPV**
Historic and some old buildings	0.5 PPV	0.25 PPV
Older residential structures	0.5 PPV	0.3 PPV
New residential structures	1.0 PPV	0.5 PPV
Modern industrial/commercial buildings	2.0 PPV	0.5 PPV

Per the Caltrans definitions,[1] virtually all sources of vibration on this project would be considered "continuous/frequent intermittent." To be conservative, considering the building to be "fragile," we propose a construction vibration limit of 0.1 PPV to avoid significant impacts.

CONSTRUCTION VIBRATION ANALYSIS

Construction activities would include site preparation work, grading, and paving. Table 2 presents typical vibration levels[2] that could be expected from construction equipment at distances of 25 and 50 feet. However, vibration levels would vary depending on soil conditions, construction methods, and equipment used at the site.

[1] Source Type: Per the Caltrans TCVGM (September 2013), "transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment."

[2] From the Caltrans "Transportation and Construction Vibration Guidance Manual" (September 2013) and the "Transit Noise and Vibration Impact Assessment" report by the United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, May 2006. Estimated levels at setbacks other than 25 feet are estimated per the Caltrans published formula $PPV_{equipment} = PPV_{ref} (25/D)^n$, where PPV_{ref} is the reference PPV at 25 feet, D is the distance from the equipment to the receiver (in feet), and n is a reference value of 1.1.

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Table 2: Example Construction Vibration Levels Compared to Building Damage Threshold

Equipment	PPV at 25 ft. (in/sec)	PPV at 50 ft. (in/sec)	Proposed Limit (in/sec)
Vibratory Roller	0.210	0.098	0.1 PPV
Hoe Ram	0.089	0.042	
Large bulldozer	0.089	0.042	
Caisson drilling	0.089	0.042	
Loaded trucks	0.076	0.035	
Jackhammer	0.035	0.016	
Small bulldozer	0.003	0.001	

As indicated in Table 2, in most areas, vibration levels would not be expected to exceed the threshold limit related to building damage at the residence. A vibratory roller might be significant. Therefore, alternative methods of compaction are recommended within 50 feet of the home. Otherwise, we do not anticipate construction vibration to have a substantial impact at the historic residence.

TRAFFIC VIBRATION ANALYSIS

Currently, the centerline of the nearest lane of Highway 156 is located approximately 70 feet from the residence. The nearest lane of The Alameda is approximately 35 to 40 feet away from the residence. The centerline of the proposed Highway 156 turn lane is approximately 50 feet away. The Alameda traffic will still be closer to the residence than the highway traffic. This indicates that the new turn lane would not generate a greater vibration impact than the existing traffic. The Caltrans TCVGM (September 2013) also states the following:

> Traffic, including heavy trucks traveling on a highway, rarely generates vibration amplitudes high enough to cause structural or cosmetic damage. However, there have been cases in which heavy trucks traveling over potholes or other discontinuities in the pavement have caused vibration high enough to result in complaints from nearby residents. These types of issues typically can be resolved by smoothing the roadway surface.

Nonetheless, we also evaluated Caltrans estimates of highway heavy truck traffic from Appendix 1 of the TCVGM (September 2013). The Caltrans data is based on various measurements conducted between 1958 and 1975. Caltrans estimates that maximum highway truck traffic vibration levels at a distance of 50 feet would be less than 0.01 inch/second. Caltrans describes this vibration level as below the human threshold of perception. This is well below the project criterion of 0.1 inch/second. Therefore, we do not anticipate traffic vibration to have a substantial impact at the historic residence.

* * *

This concludes our comments. Should you have any questions, please call.

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Sincerely,

CHARLES M. SALTER ASSOCIATES, INC.

Jeremy L. Decker, PE
Vice President

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Paleontological Resource Assessment

APPENDIX E

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October 11, 2023

Teri Wissler Adam
Senior Principal
EMC Planning Group
601 Abrego Street
Monterey, California 93940
Transmitted via email to wissler@emcplanning.com

RE: Paleontological Resource Assessment for the SR156/The Alameda EB Right Turn Lane Addition Project, San Juan Bautista, San Benito County, California

Dear Teri Wissler Adam,

At the request of EMC Planning Group, Inc., Chronicle Heritage conducted a paleontological resource assessment for the California Department of Transportation (Caltrans) State Route (SR) 156/The Alameda Eastbound (EB) Right Turn Lane Addition Project (Project) in San Juan Bautista, San Benito Couty, California, within Caltrans District 5. The goal of the assessment is to identify the geologic units that may be affected by the development of the Project, determine the paleontological sensitivity of geologic units within the Project area, assess potential for impacts to paleontological resources from development of the Project, and recommend measures to avoid or mitigate impacts to scientifically significant paleontological resources, as necessary.

This paleontological resource assessment included an online record search of the University of California Museum of Paleontology (UCMP), review of existing geologic maps, and a review of primary literature regarding fossiliferous geologic units within the Project vicinity and region. This technical memorandum has been prepared to support a California Environmental Quality Act (CEQA) environmental review for the Project as well as meet the current Caltrans regulations, policies, procedures, manuals, and standards in the Standard Environmental Reference (SER).

Project Location and Description

The City of San Juan Bautista (City) has approved development of a gas station located at the southeast corner of State Route 156 and The Alameda (Assessor's Parcel Number 002-520-012) in San Juan Bautista, San Benito County, California. Specifically, the Project is in Township 12 South, Range 4 East, Mount Diablo Baseline and Meridian, as depicted on the San Juan Bautista, CA 7.5' U.S. Geological Survey (USGS) topographic quadrangle (Figure 1). As a condition of approval for the development, a right turn lane on EB SR 156 onto The Alameda is necessary. Construction of this right turn lane requires an encroachment permit from Caltrans.

The Project includes the widening of SR 156 within the state right-of-way south of the existing pavement and west of The Alameda to install a right turn lane and bike lane. The construction includes extending the existing fill slope along the south side of the highway 550 feet (ft) west of The Alameda. The proposed widening will disturb the existing fill slope and build a new 2:1 fill slope with a toe that is 5 to 10 ft further south than the existing toe. A new storm water mitigation swale is proposed south of the highway to collect and retain runoff from the new roadway paved areas and route it to the on-site ephemeral drainage ditch intake culvert.

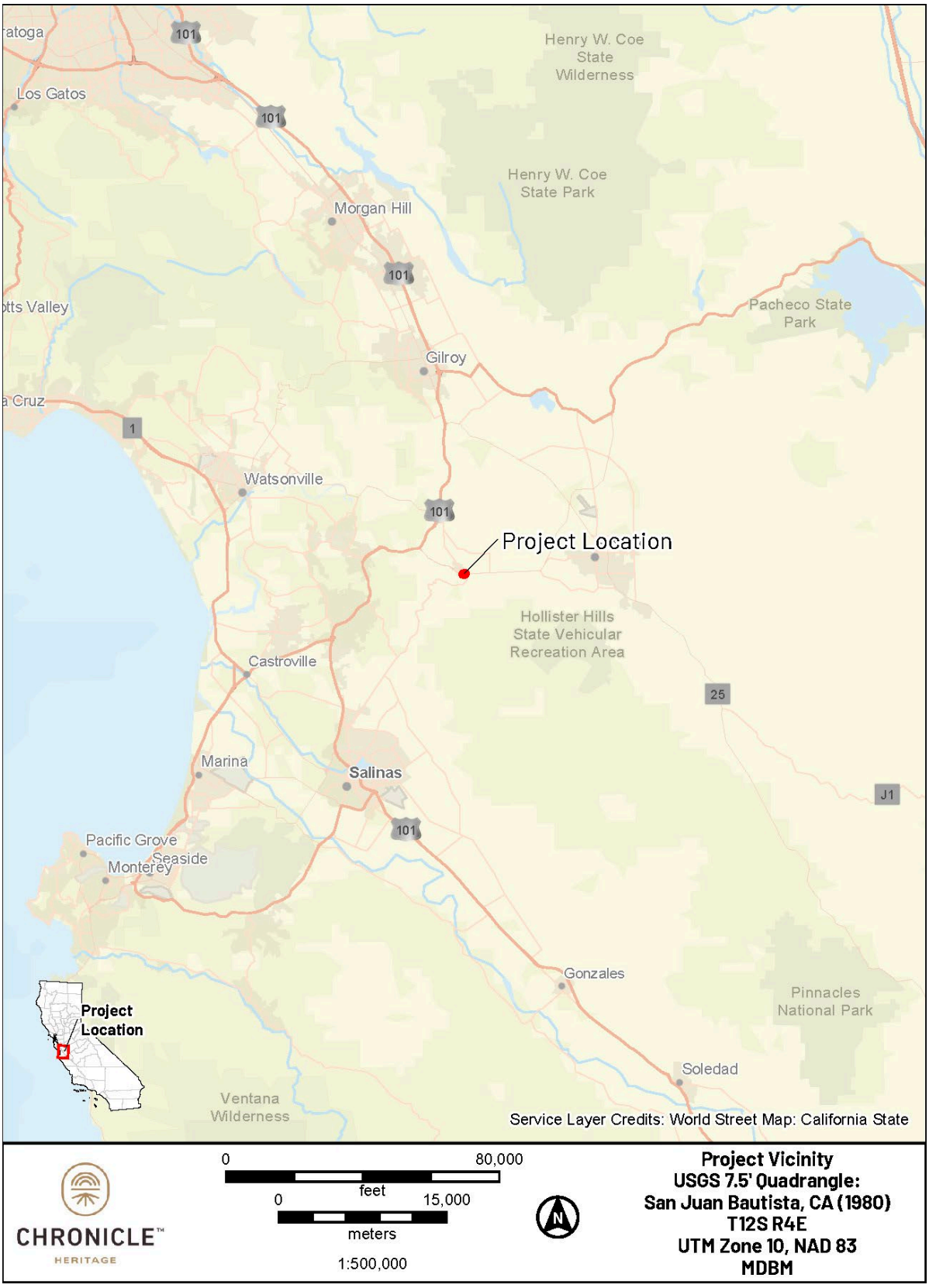


Figure 1. Project vicinity map.

Regulatory Context

Paleontological resources (i.e., fossils) are considered nonrenewable scientific resources because, once destroyed, they cannot be replaced. As such, paleontological resources are afforded protection under various federal, state, and local laws and regulations. Laws pertinent to this Project are discussed below.

State Laws and Regulations

California Environmental Quality Act

CEQA requires that public agencies and private interests identify the potential environmental consequences of their projects on any object or site of significance to the scientific annals of California (Division I, California Public Resources Code [PRC] Section 5020.1[j]). Appendix G in Section 15023 provides an Environmental Checklist of questions (Section 15023, Appendix G, Section XIV, Part A) that includes the following: "Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?"

California Public Resources Code

Section 5097.5 of the Public Resources Code (PRC) states:

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological, or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor. As used in this PRC section, 'public lands' means lands owned by, or under the jurisdiction of, the state or any city, county, district, authority, or public corporation, or any agency thereof.

Consequently, public agencies are required to comply with PRC 5097.5 for their activities including construction and maintenance as well as for permit actions (e.g., encroachment permits) undertaken by others.

Local

The San Benito County General Plan, Section 8. Natural and Cultural Resources Element (San Benito County, 2015), establishes the following goal for paleontological resources:

> **GOAL NCR-1** To preserve and enhance valuable open space lands that provide wildlife habitat and conserve natural, historical, archaeological, paleontological, tribal, and visual resources of San Benito County.
>
> > **NCR-7.10 Cultural Resources Education** The County shall educate the public regarding laws, codes, and ordinances that forbid collecting items associated with tribal, archeological, historical, and paleontological sites, and unique geological formations, particularly artifacts or other objects found in association with human remains.

> **NCR-7.11 Prohibit Unauthorized Grading** The County shall prohibit unauthorized grading, collection, or degradation of Native American, tribal, archaeological, or paleontological resources, or unique geological formations.

The San Bautista 2035 General Plan, 11 Open Space (City of San Juan Bautista, 2015), establishes the following policies and programs for paleontological resources:

> **Policy OS 3.2.1** Support heritage values of parks and open space with historic and cultural significance.
>
> > **Program OS 3.2.1.3** Educate the public regarding laws, codes, and ordinances forbidding the collection of items associated with archeological, historical, and paleontological sites.
> >
> > **Program OS 3.2.1.4** Identify and work towards the preservation of significant historic and cultural lands.

Paleontological Resources

Paleontological Resource Significance

Society of Vertebrate Paleontology (SVP) has provided guidance designed to support state and federal environmental review. The SVP broadly defines significant paleontological resources as follows:

> Fossils and fossiliferous deposits consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years). (SVP, 2010)

Significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, diagnostically important, or common but have the potential to provide valuable scientific information for evaluating evolutionary patterns and processes, or which could improve our understanding of paleochronology, paleoecology, paleophylogeography, or depositional histories. New or unique specimens can provide new insights into evolutionary history; however, additional specimens of even well-represented lineages can be equally important for studying evolutionary patterns and processes, evolutionary rates, and paleophylogeography. Even unidentifiable material can provide useful data for dating geologic units if radiometric dating is possible. As such, common fossils (especially vertebrates) may be scientifically important and therefore considered significant.

This definition is used for all projects that are subject CEQA since CEQA does not define "a unique paleontological resource or site."

Paleontological Resource Potential

Using baseline information gathered during a paleontological resource assessment, the paleontological resource potential of the geologic units, or members thereof, underlying a project area are assigned. This Project is being conducted in coordination with Caltrans, therefore, the Caltrans tripartite scale of high, low, and no paleontological resource potential will be used in order

to evaluate the paleontological resource potential of rock units in the Project area (California Department of Transportation [Caltrans], 2014). These guidelines establish protocols for the assessment of the paleontological resource potential of underlying geologic units and outline measures to mitigate adverse impacts that could result from project development.

Once the sensitivity has been determined, avoidance of significant paleontological resources should be considered as a management strategy before a typical mitigation protocol is undertaken (e.g., monitoring). Avoidance measures may include project redesign to ensure that sensitive resources are outside of the area of potential effects or the creation of Environmentally Sensitive Areas (ESAs) to restrict access to sensitive resource areas during ground disturbance. If a paleontological resource cannot be avoided, then mitigation measures, in accordance with Caltrans SER guidelines, shall be conducted.

High Potential (Sensitivity)

Rock units which, based on previous studies, contain or are likely to contain significant vertebrate, significant invertebrate, or significant plant fossils are considered to have high potential for recovering significant paleontological resources. These units include, but are not limited to, sedimentary formations that contain significant nonrenewable paleontological resources anywhere within their geographical extent and sedimentary rock units temporally or lithologically suitable for the preservation of fossils. These units may also include some volcanic and low-grade metamorphic rock units. Fossiliferous deposits with very limited geographic extent or an uncommon origin (e.g., tar pits and caves) are given special consideration and ranked as highly sensitive.

Low Potential (Sensitivity)

This category includes sedimentary rock units that are potentially fossiliferous but have not yielded significant fossils in the past have not yielded fossils but possess a potential for containing fossil remain or contain common or widespread invertebrate fossils if the taxonomy, phylogeny, and ecology of the species contained in the rock are well understood. Rock units designated as low potential generally do not require monitoring and mitigation. However, as excavation for construction begins, it is possible that new and unanticipated paleontological resources might be encountered. If this occurs, a Construction Change Order (CCO) must be prepared in order to have a qualified principal paleontologist evaluate the resource. If the resource is determined to be significant, monitoring and mitigation is required.

No Potential

Rock units of intrusive igneous origin, most extrusive igneous rocks, and moderately to high metamorphosed rocks are classified as having no potential for containing significant paleontological resources. For projects encountering only these types of rock units, paleontological resources can generally be eliminated as a concern when a Preliminary Environmental Analysis Report (PEAR) is prepared and no further action taken.

Methods

To assess whether a particular area has the potential to contain significant fossil resources in the subsurface, it is necessary to review published geologic mapping to determine the geology and

stratigraphy of the area. Geologic units are considered sensitive for paleontological resources if they are known to contain significant fossils anywhere in their extent. Therefore, a search of pertinent local and regional museum repositories for paleontological localities within and nearby the Project area is necessary to determine whether fossil localities have been previously discovered within a particular rock unit. For this Project, a records search was conducted of the online UCMP and other published and unpublished geological and paleontological literature of the area.

Resource Context

Geologic Setting

The Project area is in the central portion of the Coast Ranges geomorphic province. The Coast Ranges include north–northwest-trending mountain ranges and valleys formed due to uplift along the active Pacific plate–North American plate boundary system. The basement rocks in the Coast Ranges consist of the Franciscan Complex and the Salinian Block plutonic igneous basement rocks. The metamorphic and marine rocks of the Franciscan Complex were primarily derived from erosion of a volcanic arc, subsequent deposition in a deep marine environment, and later accretion onto the continental margin of North America during the subduction of the Farallon Plate (Schemmann et al., 2008). Later, the topography and geology of the region were highly influenced by the development of the San Andreas Fault Zone on the Pacific plate–North American plate boundary beginning at least 30 million years ago [Ma] (Dickinson, 1981).

Locally, the Project is in the northwestern portion of the San Juan Valley, a low-lying area formed from downwarping in response to the regional uplift of the Santa Cruz and Galiban Mountains to the southwest starting in the Oligocene Epoch (33.9–23.03 Ma) (Allen, 1946). Uplift of the Santa Cruz and Gabilan Mountains was driven by movement along the San Andreas Fault Zone, which encompasses San Juan Bautista to the southwest (Allen, 1946).The San Juan Valley was home to multiple pluvial lakes during the Pleistocene Epoch (Jenkins, 1973). More recently, the valley has been accumulating sediment eroded from the surrounding mountains following the drying of the lakes at the end of the Pleistocene (Allen, 1946). The San Benito River also flows northwest through the San Juan Valley through San Juan Bautisa and east of the Project.

Site-Specific Geology and Paleontology

The geology of the Project area is mapped by Wagner et al. (2002) at a scale of 1:100,000 (Figure 2). The Project area is entirely underlain by Quaternary alluvium (Qa) composed of unconsolidated clay- to boulder-size particles (Wagner et al., 2002). The Quaternary Period represents a span of geologic time from 2.6 Ma to present and includes both the Pleistocene Epoch and Holocene Epoch. Additional geologic mapping of the Project area at a larger 1:24,000 scale (Dibblee, 2006) more narrowly defines the alluvial sedimentary deposit as Holocene age and specifies it is dominated by sand and gravel from the San Benito River. Holocene deposits are typically too young to have accumulated or preserved significant biological material and are assigned a low paleontological sensitivity as a result. However, they can transition with depth into older, high-sensitivity Pleistocene deposits.

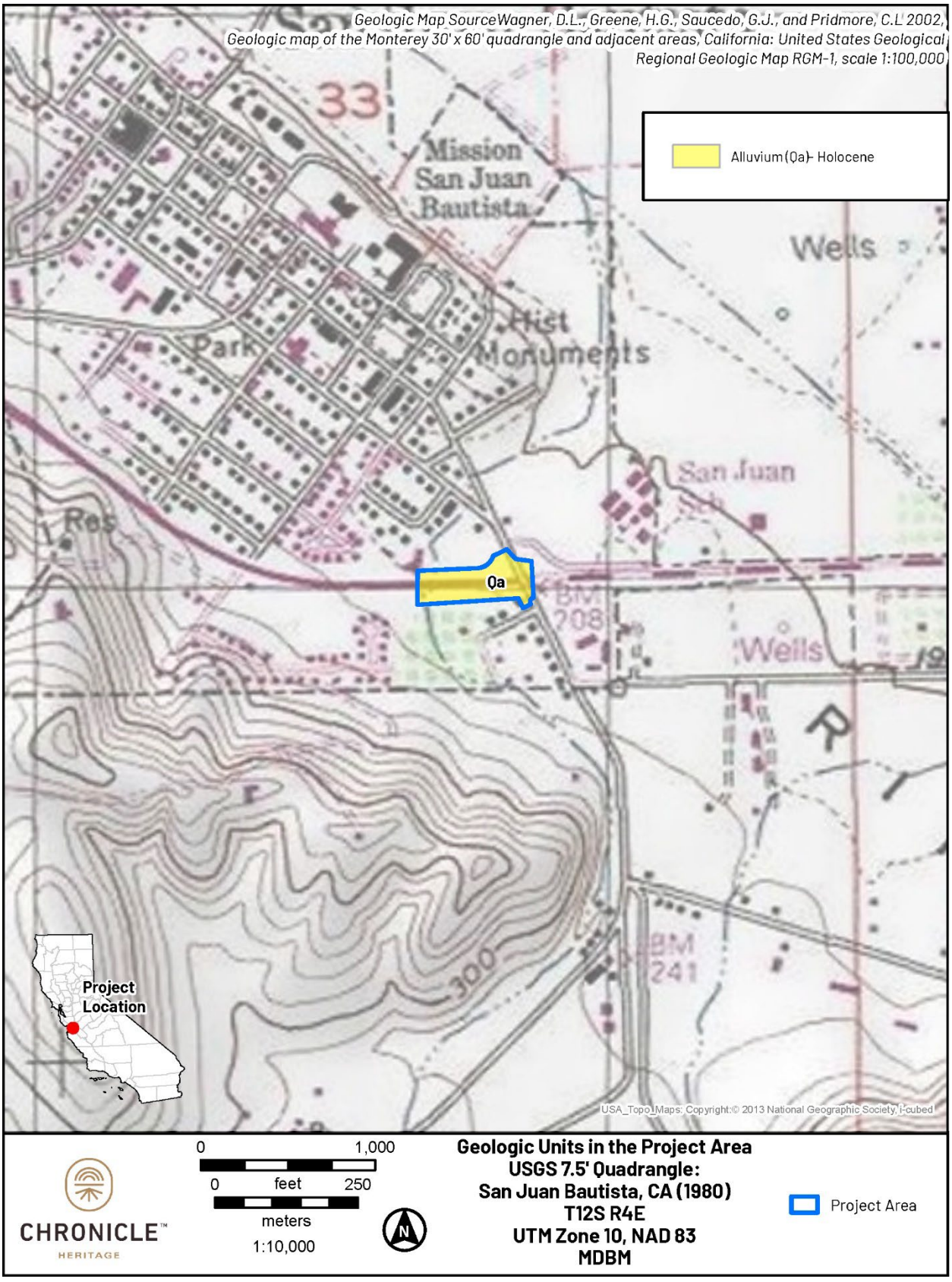


Figure 2. Project geology map.

Records Search Results

A search of the online database of the UCMP (2023) did not produce any fossil localities within three miles of the Project area. All Pleistocene age fossil localities from San Benito County are found in the San Benito Gravels several miles southeast (Griffin, 1967; Jefferson, 1991; UCMP, 2023).

Findings

This memorandum uses Caltrans' (2014) tripartite paleontological resource potential scale to assess paleontological sensitivity and the level of effort required to manage potential impacts to significant fossil resources. Using this system as well as the literature review results and museum records search, the sensitivity of geologic units was determined on the basis of the relative abundance and risk of adverse impacts to vertebrate fossils and significant invertebrates and plants.

Based on the records search results and literature review, and in accordance with the Caltrans (2014) sensitivity scale, the alluvium (Qa) underlying the Project area has a low paleontological sensitivity as a result of its young age and the lack of Pleistocene fossils in the region (Table 1). As a result, project-related ground disturbance is not expected to impact paleontological resources.

Table 1. Geologic Units in the Project Area and their Paleontological Sensitivity

Geologic Unit	Map Abbreviation[1]	Age	Typical Fossils[2]	Paleo Sensitivity
Alluvium	Qa	Holocene	None	Low

[1] Wagner et al., 2002.

[2] Jefferson, 1991; UCMP, 2023.

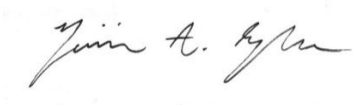
Recommendations

In general, the potential for a given project to result in negative impacts to paleontological resources is directly proportional to the amount of ground disturbance associated with the project. Thus, the higher the amount of ground disturbances within geological deposits with a known paleontological sensitivity, the greater the potential for negative impacts to paleontological resources. Since the geologic units underlying the Project area are low sensitivity, paleontological monitoring for ground disturbance in the Project area is not recommended.

If fossils are discovered during ground disturbance, all work in the immediate vicinity should be halted to allow a qualified paleontologist to evaluate the discovery and determine if the fossil may be considered significant. If the fossils are determined to be potentially significant, the fossils should be recovered following standard field procedures for collecting paleontological resources in accordance with Caltrans (2014) guidelines.

Thank you for contacting Chronicle Heritage for this Project. If you have any questions, please do not hesitate to contact us.

Sincerely,



Benjamin Scherzer, M.S.
Senior Paleontologist

References

Allen, J.E., 1946, Geology of the San Juan Bautista Quadrangle, California: San Francisco, California Division of Mines, Bulletin 133, 1–75 p., https://archive.org/details/geologyofsanjuan00allerich/page/2/mode/2up?view=theater (accessed October 2023).

California Department of Transportation [Caltrans], 2014, Standard Environmental Reference (SER), Volume 1, Chapter 8 – Paleontology: Caltrans, https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/volume-1-guidance-for-compliance/ch-8-paleontology (accessed October 2023).

City of San Juan Bautista, 2015, Open Space Element, *in* City of San Juan Bautista 2035 General Plan, City of San Juan Bautista, p. 191–205.

Dibblee, T.W., 2006, Geologic map of the Prunedale and San Juan Bautista quadrangles, Monterey & San Benito Counties, California: Dibblee Geological Foundation Dibblee Foundation Map DF-230, https://ngmdb.usgs.gov/Prodesc/proddesc_77439.htm (accessed October 2023).

Dickinson, W.R., 1981, Plate tectonics and the continental margin of California, *in* Ernst, W.G. ed., The geotectonic development of California, Englewood Cliffs, New Jersey, Prentice-Hall, Rubey volume 1, p. 1–28.

Griffin, W.L., 1967, Provenance, Deposition and Deformation of the San Benito Gravels, *in* Guidebook: Gabilan Range and Adjacent San Andreas Fault, Tulsa, Oklahoma, Pacific Sections, American Association of Petroleum Geologists and Society of Economic Paleontologists and Mineralogists, p. 61–73.

Jefferson, G.T., 1991, A Catalogue of Late Quaternary Vertebrates from California: Part Two, Mammals: Natural History Museum of Los Angeles County Technical Reports 7, 135 p., http://ibecproject.com/PREDEIR_0000133.pdf.

Jenkins, O.P., 1973, Pleistocene Lake San Benito: Journal of California Geology, v. 26, p. 151–163.

San Benito County, 2015, Section 8: Natural and Cultural Resources Element, *in* San Benito County 2035 General Plan, San Benito County, https://www.cosb.us/home/showpublisheddocument/5859/637347294134470000 (accessed October 2023).

Schemmann, K., Unruh, J.R., and Moores, E.M., 2008, Kinematics of Franciscan Complex exhumation: New insights from the geology of Mount Diablo, California: GSA Bulletin, v. 120, p. 543–555, doi:10.1130/B26056.1.

Society of Vertebrate Paleontology [SVP], 2010, Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources: Society of Vertebrate Paleontology, Impact Mitigation Guidelines Revision Committee, https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines.pdf (accessed October 2022).

University of California Museum of Paleontology (UCMP), 2023, UCMP Specimen Database: University of California Museum of Paleontology, https://ucmpdb.berkeley.edu/ (accessed October 2022).

Wagner, D.L., Greene, H.G., Saucedo, G.J., and Pridmore, C.L., 2002, Geologic Map of the Monterey 30'×60' Quadrangle and Adjacent Areas, California: California Geological Survey, California Department of Conservation Regional Geologic Map Series RGM-1, https://www.conservation.ca.gov/cgs/Documents/Publications/Regional-Geologic-Maps/RGM_001/RGM_001_Monterey_2002_Plate3of3.pdf (accessed October 2023).

Noise Assessment

APPENDIX

F

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M E M O

Date: November 18, 2024

To: Teri Wissler Adam, Senior Principal
EMC Planning Group

From: Michael S. Thill, Principal Consultant
Illingworth & Rodkin, Inc.

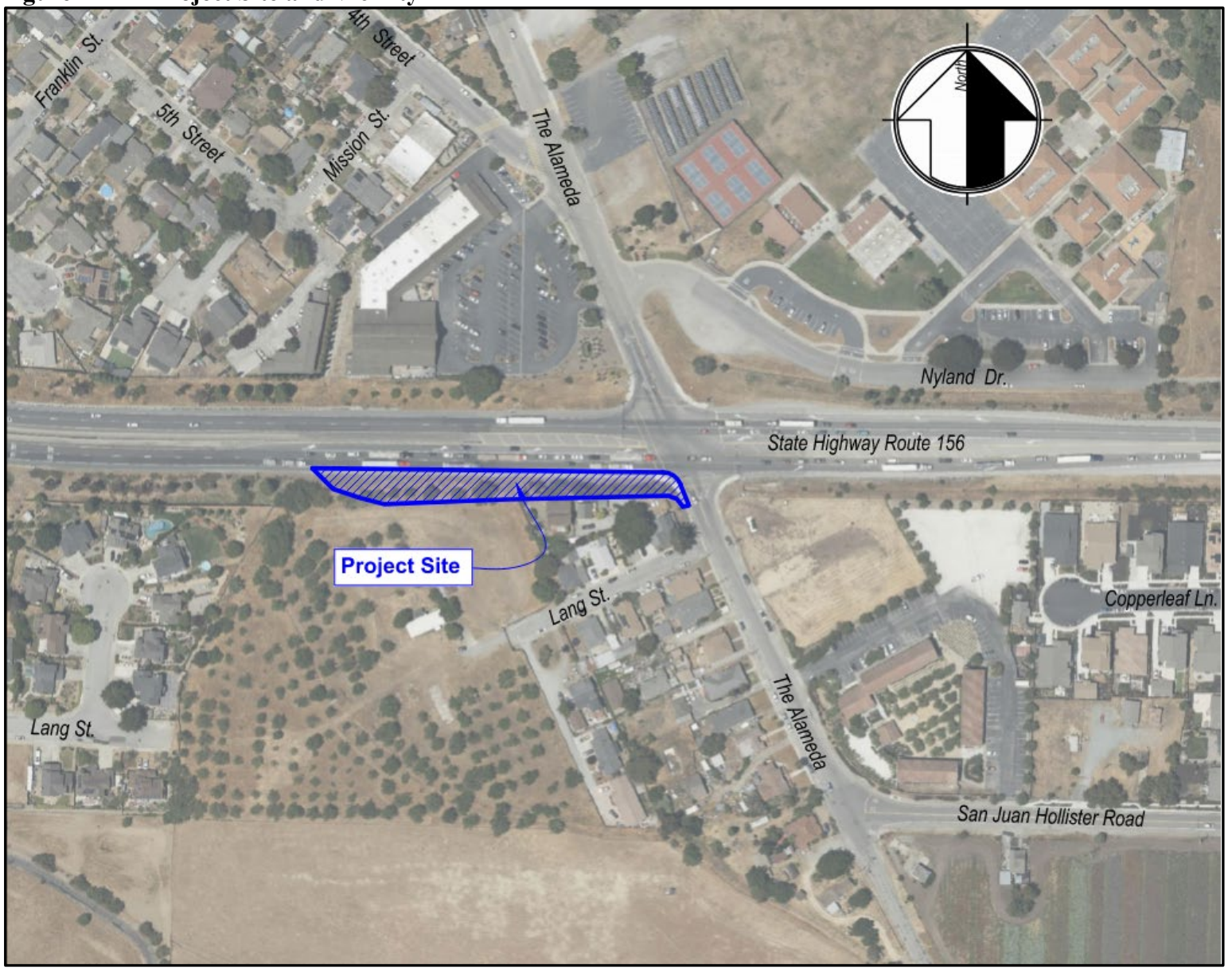
SUBJECT: Noise Assessment for the SR 156 / The Alameda Roadway Widening Project, San Jaun Bautista, CA, Project ID (EA): 05-2200-0024-1 (05-1P3001)

This memo summarizes Illingworth & Rodkin, Inc.'s assessment of temporary construction noise and permanent operational noise associated with the SR 156 / The Alameda Roadway Widening Project (Project) in San Jaun Bautista, California. The Project includes the construction of a 570-foot-long eastbound right turn lane including a 120-foot bay taper along the south side of SR 156 at The Alameda (MP 2.9-3.1). The Project will replace an existing 8- foot shoulder with a 6-foot bike lane, 12-foot right turn lane and 4-foot shoulder for a net widening of 14 feet. Figure 1 shows the project site and vicinity.

The purpose of the Project is to improve safety at the intersection of SR 156 and The Alameda. The Project is needed to mitigate the impacts associated with the new gas station, convenience store, and quick serve restaurant proposed at the southeast corner of the SR 156/The Alameda intersection.

The memo presents a summary of applicable regulatory criteria, a quantitative analysis of temporary construction noise levels, and a qualitative analysis of the change to permanent noise levels resulting from the project.

Figure 1 Project Site and Vicinity



Regulatory Criteria

The City of San Juan Bautista's Noise Element strives to reduce the effects of construction noise impacts by limiting construction operations to "daylight hours."

Objective N 1.4
Reduce noise impacts of construction activity and other temporary noise sources.

> **Policy N 1.4.1**
> Adopt regulations that limit construction activity to daylight hours.
>
> > **Program N 1.4.1.1**
> > Require restrictions on hours of construction activity when issuing construction permits.

Construction noise would also be controlled by the California Department of Transportation's (Caltrans) Standard Specification Section 14-8.02, "Noise Control," which states the following:

- Control and monitor noise resulting from work activities.
- Do not exceed 86 dBA L_{max} at 50 feet from the job site activities from 9:00 p.m. to 6:00 a.m.

Construction Phasing and Noise Levels

Construction would begin in June of 2025 and would last for approximately 2 months. Construction activities are assumed to occur during daytime construction hours.

Caltrans' Construction Emissions Tool (Cal-CET) was used to estimate the equipment required to construct the Project. The Project was modeled as a "Traffic Safety & Operations" project type with five "default" phases: Roadway Excavation & Removal, Base/Subbase/Imported Borrow, Paving, Drainage / Environmental / Landscaping, and Traffic Signalization / Signage / Striping / Painting. Table 1 lists the construction phases and equipment that would be expected to be regularly used to construct the project. Ancillary equipment used for a period of 10 hours or less during any phase were not modeled as the infrequent use of such equipment would not substantially contribute to the overall construction noise levels.

Table 1 presents noise levels calculated for each major construction phase of the Project at a distance of 50 feet, based on calculations that utilized the Federal Highway Administration's (FHWA) Roadway Construction Noise Model (RCNM). This construction noise model includes representative sound levels for the most common types of construction equipment and the approximate usage factors of such equipment that were developed based on an extensive database of information gathered during the construction of the Central Artery/Tunnel Project in Boston, Massachusetts (CA/T Project or "Big Dig"). Noise generated by construction equipment drops off at a rate of 6 dB per doubling of distance.

Table 1 Construction Noise Levels by Phase at 50 feet

Major Phase of Construction	Construction Equipment Type	Maximum Noise Level, dBA (L_{max})[1]	Average Noise Level, dBA (L_{eq})[2]
Roadway Excavation & Removal	Dozer	82	84
	Excavator	81	
	Grader[3]	85	
	Roller	80	
	Front-end Loader	79	
	Scraper	84	
	Tractor/Loader/Backhoe[3]	84	
Base/Subbase/Imported Borrow	Grader[3]	85	83
	Roller	80	
	Scraper[3]	84	
Paving	Paver[3]	77	77
	Paving Equipment[3]	77	
	Roller	80	
	Sweeper	82	
Traffic Signalization/Signage/ Striping/Painting	Aerial Lift	75	83
	Drill Rig	84	
	Mixer	80	
	Air Compressor	78	
	Paver	77	
	Gradall[3]	83	
	Skid Steer Loader	79	
	Tractor/Loader/Backhoe[3]	84	
	Trenching Machine	80	

Source: FHWA RCNM Model.

1. Maximum instantaneous noise level produced by individual pieces of equipment at 50 feet.
2. Average noise level produced by the two loudest pieces of equipment at 50 feet.
3. Two loudest pieces of equipment per phase utilizing the L_{eq} metric.

Table 2 presents the average construction noise levels by phase at the nearest receptors and Table 3 presents the average construction noise levels by phase at distances ranging from 50 feet to 1,000 feet. These noise levels account for attenuation with distance as measured from the from the center of the construction site.

Table 2 Construction Noise Levels by Phase at Nearest Receptors (dBA, L_{eq})

Major Phase of Construction	Residential (S – 50 ft)	Commercial (N – 225 ft)	Residential (W – 400 ft)	School (NE – 570 ft)
Roadway Excavation & Removal	84	71	66	63
Base/Subbase/Imported Borrow	83	70	65	62
Paving	77	64	59	56
Traffic Signalization/Signage/ Striping/Painting	83	70	65	62

Source: FHWA RCNM Model.

Table 3 Construction Noise Levels by Phase between 50 and 1,000 feet (dBA, L_{eq})

Major Phase of Construction	50 feet	100 feet	200 feet	500 feet	1,000 feet
Roadway Excavation & Removal	84	78	72	64	58
Base/Subbase/Imported Borrow	83	77	71	63	57
Paving	77	71	65	57	51
Traffic Signalization/Signage/ Striping/Painting	83	77	71	63	57

Source: FHWA RCNM Model.

Construction Noise Impacts

Construction noise would mostly be of concern where heavy construction would be concentrated for extended periods of time in areas adjacent to noise-sensitive receptors, where noise levels from individual pieces of equipment are substantially higher than ambient conditions, or when construction activities would occur during noise-sensitive early morning, evening, or nighttime hours.

Ambient noise levels along SR 156 were quantified as part of the Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the 404-408 The Alameda Fuel Station, Convenience Store and Quick Serve Restaurant project.[1] Noise levels were reported to be 78 dB L_{dn} at the setback of sensitive land uses adjoining SR 156. The range of maximum instantaneous noise levels were not reported in the IS/MND, but are estimated to typically range from 80 to 90 dBA L_{max} with the presence of heavy-duty trucks, motorcycle, and emergency vehicles along the roadway. Similarly, daytime hourly average noise levels were not reported in the IS/MND, but are estimated to range from 71 to 76 dBA L_{eq} based on the typical relationship between daily average noise levels and daytime hourly average noise along similar type roadways.

Project construction activities would at times result in temporary increases to noise at adjacent receptors. Based on a review of the primary equipment anticipated for the project, graders, scrapers, tractors, loaders, backhoes, and drill rigs would generate the highest noise levels ranging from approximately 84 to 85 dBA L_{max} at 50 feet. Although construction activities are not expected at night, such noise levels would not exceed 86 dBA L_{max}. Project construction activities would not be expected to exceed the quantitative noise limits established by Caltrans or substantially exceed existing maximum instantaneous noise levels produced by vehicle traffic.

Under Section 216 of the Streets and Highway Code (Freeway Noise in Classrooms), noise levels are required to be maintained at or below 52 dBA L_{eq} in classrooms, libraries, multipurpose rooms, and spaces used for pupil personnel services of a public of private elementary or secondary school.

1 404-408 The Alameda, San Juan Bautista Fuel Station, Convenience Store and Quick Serve Restaurant Initial Study/Mitigated Negative Declaration, Hatch Mott MacDonald, July 11, 2016.

The closest elementary or secondary school is San Juan Elementary School, which is located approximately 570 feet northeast of the center of the construction site. Construction noise levels are estimated to range from 56 to 63 dBA L_{eq} at the exteriors of the elementary school buildings.

Based on FHWA Guidance, a typical Category D use structure would be anticipated to provide about 10 dBA of noise reduction from exterior noise sources with windows open and 20 to 25 dBA of noise reduction with windows in the closed position, assuming light frame construction. Therefore, Category D use structures that do not have forced air mechanical ventilation, to allow occupants to keep windows closed to control noise, could be anticipated to have interior noise levels approaching or exceeding 52 dBA $L_{eq[h]}$ with exterior exposures of 62 dBA L_{eq} or more. For structures with windows in the closed position, exterior noise levels of 72 to 77 dBA L_{eq} or less, depending on the acoustical construction of the structure, would result in acceptable interior noise levels.

A review of aerial images sows that the elementary school buildings are mechanically ventilated, therefore, under worst-case conditions, construction noise levels would be 43 dBA L_{eq} or less indoors and would not exceed the 52 dBA L_{eq} threshold within classrooms, libraries, multipurpose rooms, or spaces used for pupil personnel services of San Juan Elementary School.

The duration of noise exposure at any given noise-sensitive receptor is also considered to determine the impact's significance. For purposes of this analysis, temporary exposure to noise during the daytime over an approximate two month construction period would be considered to result in a less-than-significant impact. This finding is based on the reasonable assumption that most people would expect and accept short-term noise associated with a nearby public works construction project in the public right-of-way assuming the implementation of best management practices. Noise impacts from project construction activities are not expected because construction would be temporary and intermittent, conducted in accordance with Caltrans Standard Specifications, and because local noise levels are significantly influenced by traffic noise along SR 156.

Construction Noise Minimization Measures

The following minimization measures are assumed in this analysis:

- Whenever possible, construction work shall be done during the day.
- If construction is necessary outside of typical daytime hours, the construction activities that generate the greatest amount of noise shall be done as early in the evening as possible.
- The contractor shall shield loud pieces of stationary construction equipment with sound barriers if complaints are received from the public.
- The contractor shall locate portable generators, air compressors, etc. away from sensitive noise receptors as feasible.
- The contractor shall limit grouping major pieces of equipment operating in one area to the greatest extent feasible.
- The contractor shall use newer equipment that is quieter and ensure that all equipment items have the manufacturers' recommended noise abatement measures, such as mufflers, engine covers, and engine vibration isolators intact and operational. Internal combustion

engines used for any purpose on or related to the job shall be equipped with a muffler or baffle of a type recommended by the manufacturer.

- Contractor shall notify the public at least two weeks in advance when construction noise and upcoming construction activities are likely to produce an adverse noise environment. The District 5 Public Information Office shall publish notice of the proposed dates and duration of proposed construction activities and potential community impacts in local news media after receiving notice from the Resident Engineer.

No further minimization measures are recommended.

Operational Noise Impacts

The potential increase in traffic noise levels attributable to the Project was conservatively estimated based on a review of the changes to the lane geometry of SR 156. The proposed Project would construct the eastbound SR 156 right-turn lane at The Alameda closer to existing residential land uses along Lang Avenue. This would allow for two eastbound through traffic lanes through the intersection.

Equivalent lane distances under existing and proposed conditions were calculated and compared to determine the change in noise levels resulting from the project. From the results of these calculations, traffic noise levels are conservatively estimated to increase by 0.2 dB at the existing residential land uses along Lang Avenue. This minor change in noise levels would not be noticeable and would result in a less-than-significant impact.