## U.S. 101 Improvement Project between Monterey Street and State Route 129

Santa Clara and San Benito Counties, California Caltrans District 4 - SCL - 101 (PM 0.0 - 5.0), Caltrans District 5 - SBT - 101 (PM 4.9 - 7.5), Caltrans District 4 - SCL - 25 (PM 1.6 - 2.5) SCH 2007102141

## FINAL ENVIRONMENTAL IMPACT REPORT



Prepared by the

Santa Clara Valley Transportation Authority



May 2013

## Preface to the Final Environmental Impact Report

This Final Environmental Impact Report (EIR) for the U.S. 101 Improvement Project was prepared in compliance with the California Environmental Quality Act (CEQA). This document contains the following:

- ➤ Text of the Final EIR
- Summary of the Scoping/Outreach/Coordination Process (Chapter 3)
- Responses to Comments on the Draft EIR (Chapter 4)
- Copies of Written Comments on the Draft EIR (Appendix F)
- Copy of Public Hearing Transcript (Appendix G)

To assist the reader, any changes made to the text of the Draft EIR are indicated in this Final EIR as follows: Text additions are <u>underlined</u>. Text deletions show the original text with a <del>strikeout</del> running through the part of the text to be deleted.

# Summary

The Santa Clara Valley Transportation Authority (VTA) has prepared this Environmental Impact Report (EIR) in its role as the Lead Agency under the California Environmental Quality Act (CEQA). The VTA, in cooperation with the California Department of Transportation (Caltrans), proposes improvements to U.S. 101, as described below.

#### **OVERVIEW OF PROJECT AREA**

The proposed project is located on U.S. 101 in southern Santa Clara County/northern San Benito County, California. The northerly project limit is Monterey Street in the City of Gilroy and the southerly project limit is State Route (SR) 129. Within the project limits, U.S. 101 is currently a 4-lane expressway in Santa Clara County and a 4-lane freeway in San Benito County. Existing interchanges on U.S. 101 are located at Monterey Street, SR 25, Betabel Road/Y Road, and SR 129. Within Santa Clara County, there is also access between U.S. 101 and a number of local roadways and driveways.

#### PURPOSE AND NEED

The purpose of the proposed project is to accomplish the following objectives:

- Complete the upgrade of U.S. 101 to freeway standard in Santa Clara County, and improve system connectivity to SR 25 and SR 129.
- Accommodate projected traffic demand along U.S. 101, including growth anticipated under adopted land use plans, thereby reducing future congestion and delay, especially during peak travel periods.
- Improve safety along the project segment of U.S. 101, including the reduction of conflicts with agricultural traffic.
- Improve traffic operations on the project segment of U.S. 101, including those associated with connections between U.S. 101 and SR 25, SR 129, local roads, and adjacent land uses.
- Enhance the movement of goods along the U.S. 101 transportation corridor.
- Maintain and enhance bicycle access in the U.S. 101 corridor.

The need for the project is summarized as follows:

- The project segment of U.S. 101, which is currently a 4-lane expressway in Santa Clara County and a 4-lane freeway in San Benito County, has insufficient capacity to accommodate future demand during peak travel periods. As a result, delays and congestion are projected to occur during the AM and PM peak weekday commutes, as well as on weekends.
- The design of the existing U.S. 101/SR 25 interchange is inadequate to accommodate demand, the result of which is the backup of traffic onto the mainlines of U.S. 101 and SR 25.
- Existing conditions within the project segment of U.S. 101 that do not meet current standards include inadequate shoulder widths, uncontrolled local and private access, reduced sight distance, insufficient merge/weave sections, and insufficient street lighting. These conditions, coupled with relatively high volumes of traffic and relatively high travel speeds, have resulted in accident rates that are higher than those on the adjacent freeway segment of U.S. 101 to the north.
- The lack of controlled access to U.S. 101 and the absence of frontage roads along the highway requires local traffic associated with the adjacent land uses to utilize U.S. 101. This results in conflicts between fast-moving highway traffic and slower-moving vehicles that are entering/exiting along the existing highway.
- The existing at-grade crossing of the UPRR tracks on SR 25 just west of Bloomfield Road causes traffic backups during train operations.
- The lack of a signalized intersection at the U.S. 101 ramp termini on SR 129 is projected to result in delay as demand increases.

#### PROPOSED ACTION

A summary of the main improvements of the proposed project is provided below. Details are provided in Section 1.3 of this document.

▶ Widen and upgrade U.S. 101 to a 6-lane freeway between the Monterey Street interchange in Gilroy and the SR 129 interchange in northern San Benito County.

- Reconstruct the U.S. 101/SR 25 interchange. There are two design options for the reconstructed interchange being considered. Design Option A would reconstruct the U.S. 101/SR 25 interchange at a location approximately 0.2 miles north of the existing interchange. Design Option B would reconstruct the U.S. 101/SR 25 interchange at essentially the same location as the existing interchange.
- Construct an auxiliary lane in each direction on U.S. 101 between the Monterey Street and SR 25 interchanges.
- Extend Santa Teresa Boulevard approximately 0.5 miles from Castro Valley Road to the new U.S. 101/SR 25 interchange.
- Construct improvements at the southbound U.S. 101 off-ramp to SR 129.
- Construct frontage roads, as needed, to replace existing access to U.S. 101 from adjacent properties.
- Grade-separate the Union Pacific Railroad (UPRR) crossing on SR 25 just west of Bloomfield Avenue.
- Construct bicycle facilities, as needed, to replace access that will be lost when U.S. 101 is upgraded to a freeway and to improve bicycle access in the project area.

#### PROJECT IMPACTS

Table S-1 provides a brief summary of the environmental impacts of the project, as well as avoidance, minimization, and/or mitigation measures. The reader is referred to Chapter 2 of this EIR for detailed discussions of the existing setting, impacts, and avoidance, minimization, and/or mitigation measures.

#### **COORDINATION WITH PUBLIC AND OTHER AGENCIES**

Construction of the proposed project will require permits/approvals from the governmental agencies listed in Table S-2.

During the planning and preliminary design for the project, VTA and Caltrans have undertaken substantial outreach to the public and to affected governmental agencies. This outreach, which

is described in detail in Section 3, focused on soliciting input on a wide variety of issues, most notably the following:

- Local property access and local traffic circulation given the proposed upgrade of U.S. 101
  from an expressway to a freeway in the Santa Clara County portion of the project.
- Bicycle and pedestrian access and circulation in the project area, including maximizing connections to existing and future trails.
- The substantial amount of right-of-way needed for the project, including the acquisition and relocation of four residences and two businesses.
- Coordination of the project's design to be compatible with other planned improvements, including a separate project to upgrade SR 25 to an expressway.
- The relationship of the project to the planned Santa Clara Valley Habitat Conservation Plan/Natural Communities Conservation Plan viz a viz mitigation for the project's impacts to wetlands and aquatic habitat, riparian habitat, oak woodland habitat, and a number of special-status animal species.
- Measures to facilitate wildlife movement across the U.S. 101 corridor given the project's location in an area of importance to habitat connectivity and wildlife movement.
- The location of the project in proximity to a number of historical and archaeological resources, including the Bloomfield Ranch.
- Measures to address the existing hydrological issues, including the fact that much of the area and portions of U.S. 101 are subject to flooding. <u>There are floodplain issues along the Pajaro River that are particularly important, requiring coordination with the Pajaro River Watershed Flood Prevention Authority.</u>
- The impacts of the project on prime agricultural lands, including those under Williamson
  Act contracts. The purchase of agricultural conservation easements is proposed.

#### Issues to be Resolved

The one substantial project-related issue to be resolved centers on the proposed reconstruction of the U.S. 101/SR 25 interchange, specifically whether to choose Design Option A or Design Option B. This decision will involve the consideration and weighing of a number of factors including their differences in construction costs and environmental impacts.

| TABLE      Summary of environmental impacts and avoidance, minimization and/or mitigation measures  |   |
|---|---|
| Environmental Impact  | Avoidance, Minimization, Mitigation Measures  |
| Land Use [EIR Section 2.1]  |   |
| Impact LU-1: The project will not physically divide an established community. [No Impact]   | No avoidance, minimization, or mitigation measures are required.  |
| Impact LU-2: The project is consistent with relevant regional and local plans and policies. [No Impact]   | No avoidance, minimization, or mitigation measures are required.  |
| Growth [EIR Section 2.2]  |   |
| <b>Impact GR-1:</b> The project would result in a direct and significant growth-inducing impact if and when the application for the El Rancho San Benito (ERSB) project is resubmitted and the approval of ERSB is conditioned upon the widening of U.S. 101. <b>[Significant Impact]</b>       | There is no feasible mitigation for this impact.<br>[Significant Unavoidable Impact]  |
| Impact GR-2: The project's indirect effect on the rate,<br>location, and/or amount of future growth will not be<br>substantial. [Less-than-Significant Impact]  | No avoidance, minimization, or mitigation measures are required.  |
| Farmlands [EIR Section 2.3]   |   |
| <b>Impact FARM-1:</b> The project will convert 157 acres<br>and 122 acres of prime farmland to highway uses<br>under Design Option A and Design Option B,<br>respectively. Included in this conversion are<br>farmlands that are under Williamson Act contracts.<br><b>[Significant Impact]</b> | <b>MM-FARM-1.1:</b> Farmland conservation easements will be purchased at a 1:1 mitigation-to-impact ratio for each acre of farmland directly impacted by the project. This mitigation will not reduce this impact to a less-than-significant level. <b>[Significant Unavoidable Impact]</b> |
| Relocations [EIR Section 2.4]   |   |
| The project will require the acquisition and relocation<br>of four residences and two businesses. The<br>displacement of these residences and businesses is a<br>substantial economic and social effect of the project.<br>Under CEQA it is not, however, an environmental<br>impact            | These properties will be purchased at fair market value. Relocation assistance will be provided in accordance with<br>the provisions of the Department's Relocation Assistance Program.   |

| TABLE      S - 1        SUMMARY OF ENVIRONMENTAL IMPACTS AND AVOIDANCE, MINIMIZATION AND/OR MITIGATION MEASURES   |  |  |
|---|--|--|
| Environmental Impact  | Avoidance, Minimization, Mitigation Measures   |  |
| Utilities & Emergency Services [EIR Section   | 2.5]   |  |
| <b>Impact UTIL-1:</b> The project will not result in the disruption of utility services. The project will not hinder emergency vehicle response times. The project will not sever or alter any emergency evacuation routes. <b>[No Impact]</b>  | No avoidance, minimization, or mitigation measures are required.   |  |
| Transportation & Traffic, Bicycle & Pedestria   | an Facilities [EIR Section 2.6]  |  |
| Impact TRAN-1: The project will improve peak-period traffic operations along the project segment of U.S. 101. [Beneficial Impact]   | No avoidance, minimization, or mitigation measures are required.   |  |
| Impact TRAN-2: The project will not result in a significant impact at any of the study intersections.<br>[Less-than-Significant Impact]   | No avoidance, minimization, or mitigation measures are required.   |  |
| <b>Impact TRAN-3:</b> Although the project will eliminate<br>bicycle access along the shoulder of U.S. 101 and SR<br>25 within the project limits, this access will be<br>replaced with a system of new north-south and east-<br>west bike lanes and bike paths, providing a safe and<br>direct means for bicycle travel in this area.<br>[Beneficial Impact] | No avoidance, minimization, or mitigation measures are required.   |  |
| Visual/Aesthetics [EIR Section 2.7]   |  |  |
| Impact VISUAL-1: The proposed retaining walls will<br>not result in a substantial change to the existing<br>visual and aesthetic environment along the project<br>segment of U.S. 101. [Less-than-Significant Impact]   | No avoidance, minimization, or mitigation measures are required.   |  |
| Impact VISUAL-2: Under Design Option A, the visual<br>impact of the project from a vantage point along U.S.<br>101, 0.6 miles north of the 101/25 interchange, will<br>be substantial. [Significant Impact]   | <b>MM-VISUAL-2.1</b> : The visual effect of the new SR 25 overcrossing will be lessened through the incorporation of architectural design features (i.e., use of colors and textures that reduce visual impacts) into the structure. Landscaping will also be added to the interchange to lessen this impact. This mitigation will not reduce this impact to a less-than-significant level. [Significant Unavoidable Impact] |  |

| TABLE      Summary of environmental impacts and avoidance, minimization and/or mitigation measures   |  |
|--|--|
| Environmental Impact   | Avoidance, Minimization, Mitigation Measures   |
| Impact VISUAL-3: Under Design Option B, the visual<br>impact of the project from a vantage point along U.S.<br>101, 0.6 miles north of the 101/25 interchange, will<br>not be substantial. [Less-than-Significant Impact]                            | No avoidance, minimization, or mitigation measures are required.   |
| Impact VISUAL-4: Under Design Option A, the visual<br>impact of the project from a vantage point along<br>Santa Teresa Boulevard near Gavilan College will not<br>be substantial. [Less-than-Significant Impact]                                     | No avoidance, minimization, or mitigation measures are required.   |
| Impact VISUAL-5: Under Design Option B, the visual<br>impact of the project from a vantage point along<br>Santa Teresa Boulevard near Gavilan College will not<br>be substantial. [Less-than-Significant Impact]                                     | No avoidance, minimization, or mitigation measures are required.   |
| Impact VISUAL-6: Under Design Option A, the visual<br>impact of the project from a vantage point at the<br>intersection of SR 25 and Bloomfield Avenue will not<br>be substantial. [Less-than-Significant Impact]                                    | No avoidance, minimization, or mitigation measures are required.   |
| Impact VISUAL-7: Under Design Option B, the visual<br>impact of the project from a vantage point at the<br>intersection of SR 25 and Bloomfield Avenue will not<br>be substantial. [Less-than-Significant Impact]                                    | No avoidance, minimization, or mitigation measures are required.   |
| Impact VISUAL-8: Under Design Option A, the visual impact of the project from a vantage point to the west of the existing 101/25 interchange will not be substantial. [Less-than-Significant Impact]   | No avoidance, minimization, or mitigation measures are required.   |
| Impact VISUAL-9: Under Design Option B, the visual<br>impact of the project from a vantage point to the<br>west of the existing 101/25 interchange will be<br>substantial. [Significant Impact; reduced to Less-than<br>Significant with Mitigation] | <b>MM-VISUAL-9.1:</b> Small trees will be planted along the north side of Santa Teresa Boulevard in order to screen views of this roadway from the adjacent event center. The trees will function as large screening shrubs. Species that grow into tall trees will not be planted as they would block views of the Diablo Range in the distance |

| TABLE      Summary of environmental impacts and avoidance, minimization and/or mitigation measures  |  |  |
|---|--|--|
| Environmental Impact  | Avoidance, Minimization, Mitigation Measures   |  |
| Impact-VISUAL-10: The removal of vegetation by the project will not result in a significant visual impact.<br>[Less-than-Significant Impact]  | No avoidance, minimization, or mitigation measures are required.   |  |
| Cultural Resources [EIR Section 2.8]  |  |  |
| Impact CUL-1: Construction-related activities will<br>adversely impact one or more of the archaeological<br>resources in the Project Area Limits (PAL).<br>[Significant Impact; reduced to Less-than Significant<br>with Mitigation]                          | <b>MM-CUL-1.1:</b> To resolve construction-related activities that will adversely impact one or more of the historical resources in the PAL, an Archaeological Treatment Plan (ATP) will be developed that details procedures and mechanisms that will be followed by Caltrans and VTA to ensure both agencies satisfy their regulatory requirements under CEQA. The ATP will outline the process for completing the identification and evaluation phase of the regulatory process on parcels not yet acquired by the project where access was denied. When data recovery through excavation is the only feasible mitigation, provisions in the ATP for adequate recovery of scientifically consequential information from and about the historical resource, shall be implemented prior to any project-related construction or other activities being undertaken. |  |
|   | <b>MM-CUL-1.2:</b> If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.   |  |
| Impact CUL-2: The project will not have a substantial effect on the Bloomfield Ranch. [Less-than-Significant Impact]  | No avoidance, minimization, or mitigation measures are required.   |  |
| Impact CUL-3: The project will have no adverse effect on the San Felipe Church. [No Impact]   | No avoidance, minimization, or mitigation measures are required.   |  |
| Impact CUL-4: The project will have no adverse effect on the Mayock House. [No Impact]  | No avoidance, minimization, or mitigation measures are required.   |  |
| Hydrology & Floodplains [EIR Section 2.9]   |  |  |
| Impact HYDRO-1: Under both Design Option A and<br>Design Option B, the project will result in substantial<br>flooding impacts within the 100-year floodplain of<br>Carnadero Creek. [Significant Impact; reduced to<br>Less-than Significant with Mitigation] | <b>MM-HYDRO-1.1:</b> The project will construct a 100-foot wide trapezoidal flood control channel along the north side<br>of the proposed Santa Teresa Boulevard extension. It will also install three new double 14' x 8' RCB culverts under<br>the ramps and U.S. 101. The flood control channel will divert water on the west side of U.S. 101 to the three double<br>RCB culverts. (Design Option A only)  |  |
|   | MM-HYDRO-1.2: The project will install nine new 12-foot x 6-foot RCB culverts under U.S. 101 to divert flows from Gavilan Creek to the east side of U.S. 101. (Design Option B only)   |  |

| TABLE      Summary of environmental impacts and avoidance, minimization and/or mitigation measures   |   |
|--|---|
| Environmental Impact   | Avoidance, Minimization, Mitigation Measures  |
|  | <b>MM-HYDRO-1.3:</b> The project will construct a detention basin adjacent to the reconstructed 101/25 interchange, on the east side of U.S. 101. The basin will have a storage capacity of 120 acre-feet and a footprint of roughly 40 acres, assuming an average depth of three feet. The basin will mitigate for the loss of floodplain storage that will occur with construction of the project. The basin will be designed to drain completely following high-runoff events, without depressional areas within its bed that could result in long-term ponding that would serve as an attractant to special-status reptiles and amphibians. (Both design options) |
|  | <b>MM-HYDRO-1.4:</b> The project will install three double 14-foot x 8-foot RCB culverts under the southbound U.S. 101 off-ramp to SR 25 to convey flood flows under the ramp. (Design Option A only)   |
|  | <b>MM-HYDRO-1.5:</b> The project will construct a bridge (approximately 39-feet x 176-feet) on the southbound U.S. 101 off-ramp to SR 25 to convey flood flows under the ramp. (Design Option B only)   |
|  | MM-HYDRO-1.6: The project will construct a bridge on SR 25 just east of U.S. 101 to convey flood flows under SR 25. (Both design options)   |
|  | <b>MM-HYDRO-1.7:</b> The project will install five RCPs, each with a diameter of 30 inches, under the freeway to convey floodwaters downstream to mitigate the overtopping of U.S. 101 north of the Carnadero Creek crossing. (Both design options)   |
| Impact HYDRO-2: Under Design Option A, the project<br>will result in substantial flooding impacts within the<br>100-year floodplain of Gavilan Creek. [Significant<br>Impact; reduced to Less-than Significant with<br>Mitigation] | MM-HYDRO-2.1: The project will install a 6-foot x 4-foot RCB culvert and three RCPs (each with a 4-foot diameter)<br>under the west side frontage road. (Design Option A only)  |
| Impact HYDRO-3: Under Design Option B, the project<br>will not result in substantial flooding impacts within<br>the 100-year floodplain of Gavilan Creek. [Less-than-<br>Significant Impact]                                       | No avoidance, minimization, or mitigation measures are required.  |
| Impact HYDRO-4: The project will not raise the water surface elevation of the Tick Creek floodplain during a 100-year storm. [No Impact]   | No avoidance, minimization, or mitigation measures are required.  |

| TABLE      Summary of environmental impacts and avoidance, minimization and/or mitigation measures  |   |
|---|---|
| Environmental Impact  | Avoidance, Minimization, Mitigation Measures  |
| Impact HYDRO-5: The project will not result in<br>substantial flooding impacts within the 100-year<br>floodplain of Tar Creek. [Less-than-Significant<br>Impact]  | No avoidance, minimization, or mitigation measures are required.  |
| Impact HYDRO-6: The project will not result in<br>substantial flooding impacts within the 100-year<br>floodplain of the Pajaro River. [Less-than-Significant<br>Impact]   | No avoidance, minimization, or mitigation measures are required.  |
| Impact HYDRO-7: The project will not result in<br>substantial flooding impacts within the 100-year<br>floodplain of the San Benito River. [Less-than-<br>Significant Impact]  | No avoidance, minimization, or mitigation measures are required.  |
| Impact HYDRO-8: The project will not result in<br>substantial flooding impacts within the 100-year<br>floodplain of San Juan Creek. [Less-than-Significant<br>Impact]   | No avoidance, minimization, or mitigation measures are required.  |
| Water Quality and Stormwater Runoff [EIR S  | Section 2.10]   |
| Impact WQ-1: Construction of the project will<br>increase impervious surfaces by approximately 75<br>acres, which will increase stormwater runoff. This<br>could lead to the degradation of water quality in<br>nearby creeks and rivers. [Significant Impact;<br>reduced to Less-than Significant with Mitigation] | <b>MM-WQ-1.1:</b> The project will create approximately 32.4 acres of biofiltration strips and swales along U.S. 101 within the project limits. The strips/swales will be located along the edges of the roadways and interchange ramps. This acreage represents the maximum practicable extent of treatment for this project within the constraints of the site. |
| Geology/Soils/Seismicity/Topography [EIR S  | Section 2.11]   |
| Impact GEO-1: Construction of the project will not expose people to significant geologic hazards or risks.<br>[Less-than-Significant Impact]  | No avoidance, minimization, or mitigation measures are required.  |

| TABLE      Summary of environmental impacts and avoidance, minimization and/or mitigation measures   |   |
|--|---|
| Environmental Impact   | Avoidance, Minimization, Mitigation Measures  |
| Paleontology [EIR Section 2.12]  |   |
| Impact PALEO-1: Construction of the proposed<br>project could impact paleontological resources and<br>could destroy scientifically important fossils.<br>[Significant Impact; reduced to Less-than Significant<br>with Mitigation]                   | <b>MM-PALEO-1.1:</b> A nonstandard special provision for paleontology mitigation will be included in the construction contract special provisions section to advise the construction contractor of the requirement to cooperate with the paleontological salvage.   |
|  | <b>MM-PALEO-1.2:</b> A qualified principal paleontologist will be retained to prepare a detailed Paleontological Mitigation<br>Plan (PMP) prior to the start of construction. See Section 2.12 for the details as to the required contents of the<br>PMP.   |
| Hazardous Waste/Materials [EIR Section 2.1   | 3]  |
| Impact HAZ-1: Construction of the proposed project<br>could expose construction workers to hazardous<br>substances in concentrations that exceed regulatory<br>thresholds. [Significant Impact; reduced to Less-than<br>Significant with Mitigation] | <b>MM-HAZ-1.1:</b> If construction activities occur within 50' of the Chevron Service Station located at 5887 Monterey<br>Rd and groundwater is encountered, the groundwater will be sampled and analyzed for constituents of concern<br>related to the Chevron Station contaminants prior to disposal. If groundwater is contaminated, it will be contained<br>and either treated and discharged to the sanitary sewer or transported to a licensed groundwater treatment facility.  |
|  | <b>MM-HAZ-1.2:</b> Prior to project development, a soil investigation will be conducted to determine whether ADL has affected soils that will be excavated as part of the proposed project. This applies to all locations where such testing has not already been completed. The investigation for ADL will be performed in accordance with the Caltrans' Lead Testing Guidance Procedure. The analytical results will be compared against applicable hazardous waste criteria. Based on analytical results, the investigation will provide recommendations regarding management and disposal of affected soils in the project area including the reuse potential of ADL-affected soil during project development. The provisions of a variance granted to the Department 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 will be followed. |
|  | <b>MM-HAZ-1.3:</b> If contaminated soil is encountered (based on physical observation) during trenching activities along the alignment, the soil will be stockpiled and analyzed for potential contaminants. If the soil can not be reused onsite, it will be transported to the appropriate landfill pending waste classification. In addition, if contaminated groundwater is encountered during construction, similar steps should be taken to characterize and dispose of the groundwater as was discussed in MM-HAZ-1.2, above.  |

| TABLE      Summary of environmental impacts and avoidance, minimization and/or mitigation measures   |  |
|--|--|
| Environmental Impact   | Avoidance, Minimization, Mitigation Measures   |
|  | <b>MM-HAZ-1.4:</b> Herbicides and pesticides will be analyzed in the shallow soil in site areas located adjacent to or on agricultural land. Shallow soil samples will be collected and analyzed for metals, total petroleum hydrocarbons, volatile organic compounds, polycyclic aromatic hydrocarbons, herbicides and pesticides from site areas adjacent to railroad tracks or within railroad crossings. If soil is impacted with any of the compounds discussed above, it will be stockpiled and sampled for reuse or disposal options. |
|  | <b>MM-HAZ-1.5:</b> Testing for the presence of lead-based paint on the existing bridge structures, and within the existing buildings to be demolished, will occur. If this substance is found to be present, applicable regulations pertaining to its removal and disposal will be followed.   |
|  | <b>MM-HAZ-1.6:</b> Testing for the presence of asbestos-containing materials on the existing bridge structures, and within the existing buildings to be demolished, will occur. If asbestos is found to be present, applicable regulations pertaining to its removal and disposal will be followed.  |
|  | <b>MM-HAZ-1.7:</b> During construction, soil disturbed in the vicinity of the San Benito River may contain elevated levels of naturally-occurring asbestos (NOA). If elevated levels of NOA are found, then dust suppression measures consistent with the Air Resources Board Air Toxics Control Measure for asbestos will be implemented.   |
| Air Quality [EIR Section 2.14]   |  |
| Impact AQ-1: Construction of the proposed project would not cause or contribute to violations of carbon monoxide standards. [No Impact]  | No avoidance, minimization, or mitigation measures are required.   |
| Impact AQ-2: Construction of the proposed project<br>would not substantially increase mobile source air<br>toxic (MSAT) emissions within the project limits.<br>Regional MSAT emissions would not change due to<br>the project. [Less-than-Significant Impact] | No avoidance, minimization, or mitigation measures are required.   |
| Noise [EIR Section 2.16]   |  |
| Impact NOI-1: Depending on the location, increases<br>in long-term noise levels will range from 0-9 dBA,<br>which is less than the 12-dB threshold of significance.<br>[Less-than-Significant Impact]  | Although noise impacts are not significant, noise abatement was considered as noise levels will exceed the Noise<br>Abatement Criteria. Soundwalls were determined feasible but not reasonable; see text for details.  |

| TABLE      Summary of environmental impacts and avoidance, minimization and/or mitigation measures  |   |
|---|---|
| Environmental Impact  | Avoidance, Minimization, Mitigation Measures  |
| Natural Communities [EIR Section 2.17]  |   |
| <b>Impact NATCOM-1:</b> The project will result in the<br>permanent loss of eight acres of riparian habitat and<br>temporary impacts to seven acres of riparian habitat.<br>The project will also impact 890 linear feet of shaded<br>riverine aquatic (SRA) habitat. <b>[Significant Impact;</b><br><b>reduced to Less-than Significant with Mitigation]</b> | <b>MM-NATCOM-1.1:</b> The project will pay development fees to the Santa Clara Valley Habitat Conservation<br>Plan/Natural Communities Conservation Plan HCP/NCCP for impacts to riparian habitat. For more information on<br>the HCP/NCCP, please see Section 2.17.5.  |
|   | <b>MM-NATCOM-1.2:</b> If MM-NATCOM-1.1 turns out to be infeasible for some or all of the project, permanent impacts to riparian habitat will be mitigated by creating/restoring riparian habitat at a 3:1 ratio, on an acreage basis; temporary impacts will be mitigated at a 2:1 ratio, on an acreage basis; and SRA impacts will be mitigated at a 2:1 ratio, on an acreage basis; and SRA impacts will be mitigated at a 2:1 ratio, on an acreage basis; and SRA impacts will be mitigated at a 2:1 ratio, on an acreage basis; and SRA impacts will be mitigated at a 2:1 ratio, on an acreage basis; and SRA impacts will be mitigated at a 2:1 ratio, on an acreage basis; and SRA impacts will be mitigated at a 2:1 ratio, on an acreage basis; and SRA impacts will be mitigated at a 2:1 ratio, on an acreage basis; and SRA impacts will be mitigated at a 2:1 ratio, on an acreage basis; and SRA impacts will be mitigated at a 2:1 ratio, on an acreage basis; and SRA impacts will be mitigated at a 2:1 ratio, on an acreage basis; and SRA impacts will be mitigated at a 2:1 ratio, on an acreage basis; and SRA impacts will be mitigated at a 2:1 ratio, on an acreage basis; and SRA impacts will be mitigated at a 2:1 ratio, on an acreage basis; and SRA impacts will be mitigated at a 2:1 ratio, on an acreage basis; and SRA impacts will be mitigated at a 2:1 ratio, on an acreage basis; and SRA impacts will be mitigated at a 2:1 ratio, on an acreage basis; and SRA impacts will be mitigated at a 2:1 ratio, on an acreage basis; and SRA impacts will be mitigated at a 2:1 ratio, on an acreage basis; and SRA impacts will be mitigated at a 2:1 ratio, on an acreage basis; and SRA impacts will be mitigated at a 2:1 ratio, on an acreage basis; and SRA impacts will be acreage basis; and set of the provide basis; and set of the prov |
|   | As a potential alternative to the project creating/restoring riparian habitat at a nearby location, this measure could<br>be satisfied, in whole or part, through the purchase of riparian mitigation credits from an approved mitigation bank.<br>However, at the time this document was prepared, there were no approved mitigation banks offering riparian<br>mitigation credits for projects located in the southern Santa Clara County/northern San Benito County area. If such<br>banks become available and the project decides to purchase credits, the mitigation ratios given above for the<br>creation/restoration of riparian habitat will apply.   |
|   | [ <b>Note:</b> MM-NATCOM-1.2 will be implemented only if MM-NATCOM-1.1 is determined to be partially or completely infeasible.]   |
| Impact NATCOM-2: The project will permanently<br>impact 2.0 and 1.5 acres of oak woodland habitat<br>under Design Option A and Design Option B,<br>respectively. [Significant Impact; reduced to Less-<br>than Significant with Mitigation]   | <b>MM-NATCOM-2.1:</b> The project will pay an in-lieu fee to the HCP/NCCP for the permanent impacts to oak woodland habitat.  |
|   | <b>MM-NATCOM-2.2:</b> If MM-NATCOM-2.1 turns out to be infeasible, impacts to oak woodland will be mitigated by creating/restoring oak woodland habitat at a 2:1 ratio.   |
|   | [Note: MM-NATCOM-2.2 will be implemented only if MM-NATCOM-2.1 is determined to be infeasible.]   |

| TABLE      Summary of environmental impacts and avoidance, minimization and/or mitigation measures  |   |
|---|---|
| Environmental Impact  | Avoidance, Minimization, Mitigation Measures  |
| Impact NATCOM-3: The project will result in an<br>adverse effect on wildlife movement by increasing<br>road mortality and the ability of some animals to<br>move across U.S. 101. [Significant Impact; reduced<br>to Less-than Significant with Mitigation] | <b>MM-NATCOM-3.1:</b> North of Tar Creek, the project will maintain the existing standard fencing and thrie-beam median barrier.  |
|   | <b>MM-NATCOM-3.2:</b> New box culverts will be installed under U.S. 101 north of SR 25 for the purpose of accommodating flood flows; see MM-HYDRO 1.1 and MM-HYDRO-1.2. Although wildlife crossings are not substantial in this area, these culverts will be beneficial to wildlife movement across the U.S. 101 corridor because they will be dry year-round in most years.  |
|   | MM-NATCOM-3.3: A new culvert under U.S. 101 will be installed between Tar Creek and the Pajaro River. The height of the culvert will be at least 4 feet.  |
|   | <b>MM-NATCOM-3.4:</b> The existing, 90-inch, corrugated metal pipe (CMP) under U.S. 101 south of the Pajaro River will be replaced by a box culvert to maintain or increase its "openness ratio" (a measure of how "open" a culvert appears to animals, taking into account its height, width, and length) as this culvert is lengthened. This modification will at least maintain, if not enhance, the usefulness of this culvert to wildlife crossing under U.S. 101.   |
|   | <b>MM-NATCOM-3.5:</b> The existing, 54-inch, reinforced concrete pipe (RCP) under U.S. 101 just north of the Betabel<br>Road/Y Road interchange will be replaced with a box culvert at least 90 inches in height. Increasing the height and<br>width of this culvert will increase its openness ratio considerably, thereby enhancing its attractiveness to wildlife<br>attempting to cross U.S. 101.   |
|   | <b>MM-NATCOM-3.6:</b> Wildlife fencing will be installed along U.S. 101 from Tar Creek south to the San Benito River to minimize the potential for wildlife to access the highway's surface. The wildlife fencing will extend 0.25 miles north of Tar Creek and south of the San Benito River to minimize the potential for wildlife to access the highway's surface. The wildlife to move around the fence and onto the roadway. Wildlife "jump-outs" or one-way gates will be installed in several locations within this segment so that animals that are able to find a way onto the highway will be able to exit. |
|   | <b>MM-NATCOM-3.7:</b> Where feasible, designs for the culverts that will be lengthened by the project will include metal grating in the shoulder of the road surface. This grating will increase lighting within the culverts, offsetting the increased darkness resulting from lengthening the culverts.   |

| TABLE      Summary of environmental impacts and avoidance, minimization and/or mitigation measures  |   |
|---|---|
| Environmental Impact  | Avoidance, Minimization, Mitigation Measures  |
|   | <b>MM-NATCOM-3.8:</b> At several existing culverts under U.S. 101, vegetation immediately in front of the culverts may block the culverts from the view of dispersing animals and provide cover in which predators may hide. Although such cover may benefit animals at times, the function of the culverts (from a wildlife perspective) is to move quickly through the corridor. Therefore, in some areas, vegetation will be cleared immediately in front of culverts to make them more conspicuous and attractive and to reduce cover in which predators may hide.  |
|   | MM-NATCOM-3.9: The concrete median barriers south of Tar Creek will be retrofitted to incorporate wildlife<br>passageways (Caltrans standard "Type S, M, and/or L") to facilitate crossings by animals that are able to cross over<br>or through the wildlife fencing in these areas.   |
|   | <b>MM-NATCOM-3.10:</b> Following completion of construction, monitoring will be performed to ensure that<br>MM-NATCOM-3.1 through MM-NATCOM-3.6, and MM-NATCOM-3.9, have been implemented; to document that<br>grating has been incorporated into the road shoulder per MM-NATCOM-3.7 where feasible; and to document that<br>vegetation potentially concealing undercrossings has been cleared as appropriate to make inconspicuous<br>undercrossings more evident to wildlife per MM-NATCOM-3.8. In addition, monitoring will occur at the Tar Creek,<br>Pajaro River, and San Benito River bridges, as well as at the two culverts that are to be upgraded in size between<br>the Pajaro River and the Betabel Road/Y Road interchange, to verify continued use by mammals moving from one<br>side of U.S. 101 to the other. For details regarding the monitoring, see Section 2.17.5.3. |
| Impact NATCOM-4: Construction of the proposed project will not create barriers to the passage of fish. [No Impact]  | No avoidance, minimization, or mitigation measures are required.  |
| Wetlands [EIR Section 2.18]   |   |
| Impact WET-1: The project will result in the<br>permanent loss of 3.2 acres of wetlands and aquatic<br>habitat and temporary impacts of up to 1.5 acres of<br>wetlands and aquatic habitat. [Significant Impact;<br>reduced to Less-than Significant with Mitigation] | <b>MM-WET-1.1:</b> The project will pay development fees to the Santa Clara Valley HCP/NCCP for impacts to wetlands and aquatic habitat. For more information on the HCP/NCCP, please see Section 2.17.5.   |

| TABLE      Summary of environmental impacts and avoidance, minimization and/or mitigation measures  |   |
|---|---|
| Environmental Impact  | Avoidance, Minimization, Mitigation Measures  |
|   | <b>MM-WET-1.2:</b> If MM-WET-1.1 turns out to be infeasible for some or all of the project, permanent impacts to wetlands and aquatic habitat will be mitigated by the purchase of credits from the Pajaro River Mitigation Bank that services both Santa Clara and San Benito Counties. If credits are no longer available at this bank, and if there are no other approved mitigation banks whose service area includes the project area, then mitigation will occur through on-site or off-site creation of wetland and aquatic habitat at a 2:1 ratio, on an acreage basis. |
|   | [Note: MM-WET-1.2 will be implemented only if MM-WET-1.1 is determined to be partially or completely infeasible.]   |
|   | <b>MM-WET-1.3:</b> The temporary wetland and aquatic habitat impacts will be mitigated at a 1:1 acreage ratio within the impact footprint through the restoration of pre-construction grades, hydrology, and soil conditions in situ to any wetland and aquatic areas temporarily disturbed during construction. Wetland vegetation, structure, and function are expected to regenerate naturally following the restoration of grades, hydrology, and soils. For further details regarding this measure, please see Section 2.18.5.   |
| Plant Species [EIR Section 2.19]  |   |
| Impact PLANT-1: The project will not impact any special-status plant species. [No Impact]   | No avoidance, minimization, or mitigation measures are required.  |
| Animal Species [EIR Section 2.20]   |   |
| Impact ANIMAL-1: The project will result in both<br>short- and long-term adverse impacts to Pacific<br>lampreys and Monterey roach. [Significant Impact;<br>reduced to Less-than Significant with Mitigation] | <b>MM-ANIMAL-1.1:</b> The project will fully mitigate for impacts to SRA, riparian, and aquatic habitats. This mitigation is summarized above [see <i>Natural Communities</i> and <i>Wetlands</i> ].  |
|   | <b>MM-ANIMAL-1.2:</b> Any construction activities within the low-flow channels of waterways where Pacific lamprey and Monterey roach are known or likely to occur will be limited to the period of June 15 - October 15.  |
|   | <b>MM-ANIMAL-1.3:</b> For waterways where Pacific lamprey and Monterey roach are known or likely to occur, measures will be taken to ensure that movement of fish is not prevented by any water diversion structures used during construction, regardless of when construction occurs. Water will be diverted through the construction site by way of an open ditch or other method approved by the regulatory agencies.  |
|   | <b>MM-ANIMAL-1.4:</b> The project will implement measures during construction to avoid and minimize the potential degradation of water quality within any waterways where Pacific lamprey and Monterey roach are known or likely to occur. These measures are summarized subsequently in this table [see <i>Construction Impacts</i> ].   |

| TABLE      S - 1        SUMMARY OF ENVIRONMENTAL IMPACTS AND AVOIDANCE, MINIMIZATION AND/OR MITIGATION MEASURES   |  |
|---|--|
| Environmental Impact  | Avoidance, Minimization, Mitigation Measures   |
| Impact ANIMAL-2: The project's effect on the western spadefoot toad will not be substantial. [Less-than-Significant Impact]   | No avoidance, minimization, or mitigation measures are required.   |
| Impact ANIMAL-3: Construction activities could result<br>in harm to individual western pond turtles.<br>[Significant Impact; reduced to Less-than Significant<br>with Mitigation]       | <b>MM-ANIMAL-3.1</b> : A pre-construction survey for the western pond turtle shall be conducted within 30 days prior<br>to any site preparation, grading or construction activity at the Pajaro River, San Benito River, San Juan Creek, Tar<br>Creek, Carnadero Creek, and Tick Creek. A single, intensive search for this species shall be performed in areas<br>exhibiting even marginally suitable habitat, covering the area of potential impact at each creek crossing and<br>extending at least 500 feet beyond the area of potential impact both upstream and downstream. If this species<br>is found within the surveyed area, the California Department of Fish and Wildlife (CDFW) shall be notified of such<br>occurrence and, if possible, and without injury, individuals shall be captured and moved to a safe location, at least<br>500 feet away from the area of potential impact. |
|   | <b>MM-ANIMAL-3.2:</b> If individuals and/or suitable habitat are located within 500 feet of the area of potential impact<br>at a creek crossing, monitoring will be performed during the process of clearing vegetation within the construction<br>zone, to ensure that any western pond turtles that may be present will be safely relocated. The biologist<br>conducting such monitoring, if necessary, shall have the authority to halt operations in the immediate area to avoid<br>harming turtles, if present, until individuals are safely captured and relocated. The CDFW shall be notified of such<br>occurrence.  |
|   | <b>MM-ANIMAL-3.3:</b> During pre-construction surveys and other measures to be implemented for California red-legged frogs and California tiger salamanders, a qualified biologist will look for western pond turtles within the project's impact areas. If any pond turtles are detected during these surveys, or during construction, in an area where the individuals could be impacted, they will be relocated to a suitable location outside the area of project impact in consultation with the CDFW.  |
| Impact ANIMAL-4: The project's effect on the golden<br>eagle and the long-eared owl will not be substantial.<br>[Less-than-Significant Impact]  | No avoidance, minimization, or mitigation measures are required.   |
| Impact ANIMAL-5: The project's effect on seven<br>special-status bird species that could nest in the<br>project impact area will not be substantial. [Less-<br>than-Significant Impact] | No avoidance, minimization, or mitigation measures are required.   |

| TABLE      Summary of environmental impacts and avoidance, minimization and/or mitigation measures   |  |
|--|--|
| Environmental Impact   | Avoidance, Minimization, Mitigation Measures   |
| Impact ANIMAL-6: The project could result in a loss<br>of burrowing owl habitat and harm to individual owls<br>if the owls are found to occupy the project site prior<br>to construction. [Significant Impact; reduced to Less-<br>than Significant with Mitigation] | <b>MM-ANIMAL-6.1:</b> Pre-construction surveys will be undertaken to determine if owls utilize the habitat to be impacted by the project.  |
|  | <b>MM-ANIMAL-6.2:</b> Prior to construction, during the non-nesting season, any owls occupying burrows within construction zones shall be passively relocated under the authorization of the CDFW. Passive relocation is an intensive process that involves the installation of one-way doors in all ground squirrel burrows occurring on the site, which allow owls to leave their burrows but do not allow them to return, thereby forcing owls to move to a different area. Owl doors shall be monitored by a qualified biologist daily for a period of no less than three days and after that period, burrows shall be destroyed to preclude owls from returning to the burrows, and grading of these areas shall commence within seven days. The passive relocation will be repeated if owls move back to the construction areas.   |
|  | <b>MM-ANIMAL-6.3:</b> Burrows within the construction zone that are occupied by owls shall not be disturbed during the nesting season (February 15 through September 1) unless a qualified biologist verifies that either the owls have not begun laying and incubating eggs, or that juvenile owls have fledged and are able to live independently of their parents. If construction will occur during the nesting season, the project shall establish and maintain a minimum of a 250-foot buffer around any active nest.  |
|  | <b>MM-ANIMAL-6.4:</b> If, based on pre-construction surveys, it is determined that owls utilize habitat that will be impacted by the project, mitigation for the loss of such habitat will take the form of the payment of development fees to the Santa Clara Valley HCP/NCCP. For more information on the HCP/NCCP, please see Section 2.17.5.   |
|  | MM-ANIMAL-6.5: If MM-ANIMAL-6.4 turns out to be infeasible for some or all of the project, mitigation will consist<br>of the purchase of credits from a mitigation bank that serves the project area. If no banks or credits are available,<br>then the project will develop and implement a plan for the creation or enhancement of burrows, maintenance of<br>burrows and management of foraging habitat, monitoring procedures, funding assurance, annual reporting<br>requirements, and contingency and remediation measures. <u>The extent of the mitigation lands (either for the<br/>purchase of mitigation credits or for project-specific mitigation), enhancement measures, and other details will be<br/>determined based on the circumstances surrounding the owls to be impacted and their habitat, in consultation with<br/>the CDFW.<br/>[Note: MM-ANIMAL-6.5 will be implemented only if MM-ANIMAL-6.4 is determined to be partially or completely</u> |

| TABLE    SUMMARY OF ENVIRONMENTAL IMPACTS AND AVOIDANCE, MINIMIZATION AND/OR MITIGATION MEASURES  |  |
|---|--|
| Environmental Impact Avoidance, Minimization, Mitigation Measures   |  |
| Impact ANIMAL-7: The project's effect on the tricolored blackbird will not be substantial. [Less-than-Significant Impact]   | No avoidance, minimization, or mitigation measures are required.   |
| Impact ANIMAL-8: While the impact of the project on<br>habitat used by the San Francisco dusky-footed<br>woodrat will not be substantial, construction<br>activities are likely to harm or kill woodrats that nest<br>within the construction zone. [Significant Impact;<br>reduced to Less-than Significant with Mitigation] | MM-ANIMAL-8.1: Prior to any clearing of - or work within - riparian, oak woodland, or coyote brush scrub habitat,<br>or the removal of any oak trees located outside these habitats, a qualified biologist will conduct a survey for San<br>Francisco dusky-footed woodrat nests.  |
|   | MM-ANIMAL-8.2: Where nests are found, and if feasible, the project will maintain a buffer of at least several feet<br>(preferably as much as 10 feet) around these nests. The purpose of the buffer is to avoid moving or bumping the<br>nests or logs or branches on which the nests rest.  |
|   | If avoidance of nests is not feasible, the nests will be dismantled and the nesting material moved to a new location<br>outside the project's impact areas so that it can be used by woodrats to construct new nests. The process by which<br>this mitigation will occur is described in Section 2.20.5.   |
| Impact ANIMAL-9: During the construction phase,<br>the project could adversely affect roosting bats,<br>potentially resulting in temporary loss of day-roost<br>habitat and harm to individual bats. [Significant<br>Impact; reduced to Less-than Significant with<br>Mitigation]   | <b>MM-ANIMAL-9.1:</b> A pre-construction/pre-demolition survey for roosting bats will be conducted prior to any construction on the U.S. 101 southbound span over Tar Creek, which is the only bridge with potential for (and known) day roosting by bats. Such a survey will also be conducted in any trees and buildings within or immediately adjacent to the impact area that are identified by a qualified bat biologist (i.e., a biologist holding a CDFW collection permit allowing the biologist to handle and collect bats) as being high-potential roost sites. For details regarding this measure, please see Section 2.20.5.                             |
|   | <b>MM-ANIMAL-9.2:</b> Because the aforementioned survey will be conducted prior to the breeding season, several months may pass between that survey and the initiation of construction or demolition in a given area. Therefore, a second preconstruction/ pre-demolition survey for roosting bats, following the methods described above, will be conducted within 15 days prior to the commencement of these activities in a given area to determine whether bats have occupied a roost in or near the project's impact areas. This survey should be facilitated considerably by information (e.g., on potential roost trees) gathered during the previous survey. |
|   | <b>MM-ANIMAL-9.3:</b> If a maternity roost of any bat species is present, the bat biologist will determine the extent of a construction-free buffer around the active roost that will be maintained. This buffer <del>would</del> <u>will</u> be maintained from April 1 <sup>st</sup> until the young are flying, typically after August 31 <sup>st</sup> .   |

| TABLE    Summary of environmental impacts and avoidance, minimization and/or mitigation measures  |  |  |
|---|--|--|
| Environmental Impact  | Avoidance, Minimization, Mitigation Measures   |  |
|   | <b>MM-ANIMAL-9.4:</b> If a day roost is found on a bridge, in a building, or in a tree that is to be completely removed or replaced, individual bats will be safely evicted under the direction of a qualified bat biologist. Eviction of bats will occur at night, so that bats will have less potential for predation compared to daytime roost abandonment. Eviction will occur between September 1 <sup>st</sup> and March 31 <sup>st</sup> , outside the maternity season, but will not occur during long periods of inclement or cold weather (as determined by the bat biologist) when prey are not available or bats are in torpor. For details regarding this measure, please see Section 2.20.5.   |  |
|   | <b>MM-ANIMAL-9.5:</b> If a day roost will be impacted, an alternative bat roost structure will be provided. The design<br>and placement of this structure will be determined by a bat biologist, in consultation with the CDFW, based on the<br>species of bat to be displaced, the location of the original roost, and the habitat conditions in the vicinity. For<br>details regarding this measure, please see Section 2.20.5.  |  |
|   | <b>MM-ANIMAL-9.6:</b> In some circumstances, it may be beneficial to allow roosting bats to continue using a roost while construction is occurring on or near the roost site. For details regarding this measure and a description of the process that will be used to determine if bats should continue to roost during construction, please see Section 2.20.5.  |  |
| Impact ANIMAL-10: While the impact of the project<br>on habitat used by the ringtail will not be substantial,<br>construction activities could harm or kill ringtails if<br>they are found to be nesting within the construction<br>zone. [Significant Impact; reduced to Less-than<br>Significant with Mitigation] | <b>MM-ANIMAL-10.1:</b> If a ringtail nest is detected incidentally (i.e., during the woodrat surveys described above in MM-ANIMAL-8.1), a qualified mammalogist will determine the extent of a construction-free buffer zone that should be maintained around the den. Construction activities within this zone will not occur during the period March 1 <sup>st</sup> through August 31 <sup>st</sup> to avoid potential construction disturbance to the ringtail during the breeding season. After August 31 <sup>st</sup> , individuals will be safely evicted, under the direction of a qualified mammalogist, by disturbing the den site under the cover of darkness to allow the ringtail(s) to abscond safely to a new location without being exposed considerably to predators or competitors.   |  |
| Impact ANIMAL-11: While the impact of the project<br>on habitat used by the badger will not be substantial,<br>construction activities could harm or kill badgers if<br>they are found to be denning within the construction<br>zone. [Significant Impact; reduced to Less-than<br>Significant with Mitigation]     | <b>MM-ANIMAL-11.1:</b> A qualified mammalogist will conduct preconstruction surveys for badger dens on and within 300 ft of the site (as access permits), within two weeks prior to ground-breaking in any given area currently occupied by grassland or ruderal habitat. If the mammalogist identifies any dens that appear suitable for this species (based on size, shape, or other features), such "potential dens" will be monitored via tracking media or camera for a period of at least three days to determine occupancy, then excavated if no evidence of occupancy is detected. If an active maternity badger den is located, the mammalogist will determine the measures (e.g., buffers) that will be taken to avoid impacts to the den during the pupping season (i.e., February 15 <sup>th</sup> through July 1 <sup>st</sup> , or as otherwise determined through surveys and monitoring of the den), in consultation with the CDFW. After the pupping season, if a den is located in an onsite impact area, the badgers will be evicted by excavation of the den using hand tools, in consultation with the CDFW and under the supervision of a qualified mammalogist. |  |

| TABLE    S - 1      SUMMARY OF ENVIRONMENTAL IMPACTS AND AVOIDANCE, MINIMIZATION AND/OR MITIGATION MEASURES   |   |
|---|---|
| Environmental Impact Avoidance, Minimization, Mitigation Measures   |   |
| Impact ANIMAL-12: Construction activities may<br>adversely affect birds that are nesting within or<br>adjacent to the project's construction zone.<br>[Significant Impact; reduced to Less-than Significant<br>with Mitigation] | <b>MM-ANIMAL-12.1:</b> Vegetation that will be impacted by the project will be removed during the non-breeding season (i.e., September 1 <sup>st</sup> to February 14 <sup>th</sup> 1 <sup>st</sup> ), if feasible, to help preclude nesting. If it is not feasible to schedule vegetation removal during the non-breeding season, then pre-construction surveys for nesting birds will be conducted by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. This survey will be conducted no more than seven two days prior to the initiation of construction activities. During this survey, the ornithologist will inspect all trees, shrubs, and other potential nesting habitats in and immediately adjacent to the impact areas for nests. If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist, in consultation with CDFW, will determine the extent of a buffer zone to be established around the nest, typically 250 feet for raptors and 50 feet for other birds. which can range from 100 to 300 feet or more depending on the sensitivity of the nest and/or species. |
|   | <b>MM-ANIMAL-12.2:</b> At bridges, to avoid impacts to nesting swallows and black phoebes, old nests will be removed prior to February 15 <sup>th</sup> , or after February 15 <sup>th</sup> if a qualified ornithologist determines that the nests are not active. For details regarding this measure, please see Section 2.20.5.  |
| Threatened and Endangered Species [EIR S  | ection 2.21]  |
| Impact T&E-1: The project will result in both short-<br>and long-term adverse impacts to steelhead.<br>[Significant Impact; reduced to Less-than Significant<br>with Mitigation]  | <b>MM-T&amp;E-1.1:</b> The project will mitigate for impacts to SRA, riparian, and aquatic habitats. This mitigation is summarized above [see <i>Natural Communities</i> and <i>Wetlands</i> ].   |
|   | MM-T&E-1.2: Any construction activities within the low-flow channels of waterways where steelhead are known or likely to occur will be limited to the period of June 15 - October 15.   |
|   | <b>MM-T&amp;E-1.3:</b> For waterways where steelhead are known or likely to occur, measures will be taken to ensure that movement of fish is not prevented by any water diversion structures used during construction, regardless of when construction occurs. Water will be diverted through the construction site by way of an open ditch or other method approved by the regulatory agencies.  |
|   | <b>MM-T&amp;E-1.4:</b> The project will implement measures during construction to avoid and minimize the potential degradation of water quality within any waterways where steelhead are known or likely to occur. These measures are summarized below [see <i>Construction Impacts</i> ].  |
| Impact T&E-2: The project will result in both short-<br>and long-term adverse impacts to the California red-<br>legged frog. [Significant Impact; reduced to Less-<br>than Significant with Mitigation]                         | <b>MM-T&amp;E-2.1:</b> The project will fully mitigate for impacts to riparian habitat and aquatic/wetland habitat, the two habitat types of greatest value to red-legged frogs. This mitigation is summarized above [see <i>Natural Communities</i> and <i>Wetlands</i> ].   |

| TABLE      Summary of environmental impacts and avoidance, minimization and/or mitigation measures |  |  |
|--|--|--|
| Environmental Impact   | Avoidance, Minimization, Mitigation Measures   |  |
|  | MM-T&E-2.2: The project will pay development fees to the Santa Clara Valley HCP/NCCP for impacts to upland non-breeding red-legged habitat. For more information on the HCP/NCCP, please see Section 2.17.5.   |  |
|  | <b>MM-T&amp;E-2.3:</b> If MM-T&E-2.2 turns out to be infeasible for some or all of the project, mitigation for impacts to upland non-breeding frog habitat will consist of the purchase of credits from a mitigation bank that serves the project area. If no banks or credits are available, then the project will develop and implement a plan for the preservation and enhancement of non-breeding red-legged frog habitat at off-site location(s).   |  |
|  | [Note: MM-T&E-2.3 will be implemented only if MM-T&E-2.2 is determined to be partially or completely infeasible.]  |  |
|  | <b>MM-T&amp;E-2.4</b> : Prior to any ground disturbance, pre-construction surveys shall be conducted by a USFWS-approved biologist for the California red-legged frog. These surveys shall consist of walking surveys of the project limits and adjacent areas accessible to the public to determine presence of the species. If any red-legged frogs are detected within construction areas, they will be relocated to predetermined sites outside the project area (with the approval of the USFWS). For details regarding this measure, please see Section 2.21.5.                            |  |
|  | <b>MM-T&amp;E-2.5:</b> An employee education program will take place before groundbreaking for the project. For details regarding this measure, please see Section 2.21.5.   |  |
|  | <b>MM-T&amp;E-2.6:</b> Prior to the start of work each day, dedicated construction personnel will inspect trenches and pits that were left open overnight. If a California red-legged frog (or any amphibian that construction personnel think may be of this species) is encountered, a protocol will be followed, as described in Section 2.21.5.  |  |
|  | <b>MM-T&amp;E-2.7</b> : Permanent and temporary disturbances and other types of project-related disturbance to the habitats of the California red-legged frog shall be minimized to the maximum extent practicable. To minimize temporary disturbances, all project-related vehicle traffic shall be restricted to established roads, construction areas, and other designated areas. These areas will also be included in pre-construction surveys and, to the maximum extent possible, should be established in locations disturbed by previous activities to prevent further adverse effects. |  |
|  | <b>MM-T&amp;E-2.8:</b> Project-related vehicles shall observe a 15 mph speed limit within construction areas, except on established public roadways; this is particularly important at night when the California red-legged frog is most active. To the maximum extent possible, nighttime construction should be minimized. Off-road traffic outside of designated project areas shall be prohibited.   |  |

| TABLE      SUMMARY OF ENVIRONMENTAL IMPACTS AND AVOIDANCE, MINIMIZATION AND/OR MITIGATION MEASURES |   |  |
|--|---|--|
| Environmental Impact   | Avoidance, Minimization, Mitigation Measures  |  |
|  | <b>MM-T&amp;E-2.9:</b> To prevent inadvertent entrapment of red-legged frogs during construction, all excavated, steep-<br>walled holes or trenches more than two feet deep shall be covered at the close of each working day by plywood<br>or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. For<br>more details regarding this measure, please see Section 2.21.5.  |  |
|  | <b>MM-T&amp;E-2.10:</b> To eliminate an attraction to predators of the California red-legged frog, all food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in closed containers and removed at least once every week.   |  |
|  | MM-T&E-2.11: To avoid harassment, injury, or mortality of California red-legged frogs by dogs or cats, no canine or feline pets shall be permitted in the project area.   |  |
|  | MM-T&E-2.12: Plastic monofilament netting (erosion control matting) or similar material shall not be used at the project site because California red-legged frogs may become entangled or trapped in it.  |  |
|  | <b>MM-T&amp;E-2.13:</b> A biologist(s) shall be onsite during activities that may result in the take of the California red-legged frog. For details regarding this measure, please see Section 2.21.5.  |  |
|  | <b>MM-T&amp;E-2.14:</b> Injured California red-legged frogs will be cared for by a licensed veterinarian or other qualified person; dead red-legged frogs will be preserved according to standard museum techniques and held in a secure location. The USFWS and the CDFW will be notified within one working day of the discovery of death or injury to a California red-legged frog that occurs due to project-related activities or is observed at the project site.   |  |
|  | <b>MM-T&amp;E-2.15:</b> Environmentally sensitive area (ESA) fencing will be installed around sensitive habitat features used by the red-legged frog, such as wetlands and riparian and aquatic habitats, which are to be avoided during project construction. For details regarding this measure, please see Section 2.21.5.   |  |
|  | <b>MM-T&amp;E-2.16:</b> Under Design Option A, a bridge and a 4-foot arch pipe will be constructed within the new frontage road near the pond south of Castro Valley Road. If red-legged frogs are breeding in or otherwise using the pond, the bridge would allow frogs to disperse under the road along the drainage leading into the pond, while the arch pipe would allow for dispersal between the pond and areas west of the pond. These features will allow frogs the ability to disperse to and from the pond without crossing the road's surface [Design Option A only]. |  |
|  | <b>MM-T&amp;E-2.17:</b> Under Design Option B, a bridge and two 8-foot arch pipes will be constructed within the new Santa Teresa Boulevard Extension near the pond south of Castro Valley Ranch to allow frogs to move under the roadway. Because of the increased traffic on Santa Teresa Boulevard under this option, as compared to that on the frontage road under Design Option A, permanent exclusion fencing will be installed to keep frogs off the road's surface within 0.25 miles of the pond under Design Option B [Design Option B only].                           |  |

| TABLE      S - 1        SUMMARY OF ENVIRONMENTAL IMPACTS AND AVOIDANCE, MINIMIZATION AND/OR MITIGATION MEASURES  |   |  |
|--|---|--|
| Environmental Impact   | Avoidance, Minimization, Mitigation Measures  |  |
| Impact T&E-3: The project will result in both short-<br>and long-term adverse impacts to the California tiger<br>salamander. [Significant Impact; reduced to Less-<br>than Significant with Mitigation]            | <b>MM-T&amp;E-3.1:</b> The project will fully mitigate for impacts to aquatic/wetland habitat, the habitat type of greatest value to tiger salamanders. This mitigation is described above [see <i>Wetlands</i> ].  |  |
|  | <b>MM-T&amp;E-3.2:</b> The project will pay development fees to the Santa Clara Valley HCP/NCCP for impacts to upland non-breeding tiger salamander habitat. For more information on the HCP/NCCP, please see Section 2.17.5.   |  |
|  | <b>MM-T&amp;E-3.3:</b> If MM-T&E-3.2 turns out to be infeasible for some or all of the project, mitigation for impacts to upland non-breeding tiger salamander habitat will consist of the purchase of credits from a mitigation bank that serves the project area. If no banks or credits are available, then the project will develop and implement a plan for the preservation and enhancement of non-breeding tiger salamander habitat at off-site location(s). [ <b>Note:</b> MM-T&E-3.3 will be implemented only if MM-T&E-3.2 is determined to be partially or completely infeasible.] |  |
|  | <b>MM-T&amp;E-3.4:</b> The 12 mitigation measures listed above (i.e., MM-T&E-2.4 through MM-T&E-2.15) that are designed to prevent harm to individual California red-legged frogs will also serve to prevent harm to individual California tiger salamanders.   |  |
| Construction Impacts [EIR Section 2.22]  |   |  |
| Impact CON-1: Traffic impacts during construction will not be substantial. Street closures and detours are not anticipated. [Less-than-Significant Impact]   | No avoidance, minimization, or mitigation measures are required.  |  |
| Impact CON-2: Access to businesses will not be affected during construction of the proposed project.<br>[No Impact]  | No avoidance, minimization, or mitigation measures are required.  |  |
| Impact CON-3: Disruption of utility service during construction will not be substantial. [Less-than-Significant Impact]  | No avoidance, minimization, or mitigation measures are required.  |  |
| Impact CON-4: Without proper emissions control<br>measures in place, air quality impacts during<br>construction could be substantial. [Significant<br>Impact; reduced to Less-than Significant with<br>Mitigation] | <b>MM-CON-4.1:</b> During construction, the project will follow the Department's Standard Specification 14-8.02, Standard Specification 10, and Standard Specification 18, which address the requirements of BAAQMD and dust control and dust palliative application, respectively.   |  |

| TABLE      Summary of environmental impacts and avoidance, minimization and/or mitigation measures  |  |  |
|---|--|--|
| Environmental Impact  | Avoidance, Minimization, Mitigation Measures   |  |
|   | <b>MM-CON-4.2:</b> The project will implement all feasible PM <sub>10</sub> construction emissions control measures required by the BAAQMD, as indicated in Table 36 in Section 2.22.4.  |  |
| <b>Impact CON-5:</b> Noise from construction activities is<br>likely to constitute a temporary annoyance at<br>residences located along U.S. 101. Construction<br>activities may also generate noticeable ground<br>vibration at nearby residences, with pile driving being<br>the construction source that could produce the<br>greatest ground vibrations. <b>[Significant Impact;</b><br>reduced to Less-than Significant with Mitigation] | <b>MM-CON-5.1</b> : All internal combustion engine driven equipment will be equipped with intake and exhaust mufflers that are in good condition and appropriate for the equipment.  |  |
|   | MM-CON-5.2: Unnecessary idling of internal combustion engines within 100 feet of residences will be strictly prohibited.   |  |
|   | <b>MM-CON-5.3:</b> Staging of construction equipment within 200 feet of residences shall not occur. All stationary noise-generating construction equipment, such as air compressors and portable power generators, will be located as far practical from residences.   |  |
|   | MM-CON-5.4: All construction equipment will be required to conform to Section 14-08.02 - Sound Control Requirements of the latest Caltrans Standard Specifications.  |  |
|   | MM-CON-5.5: Nighttime construction work within 450 feet of residential land uses will be avoided where feasible.   |  |
|   | <b>MM-CON-5.6:</b> Demolition and pile driving activities should be limited to daytime hours only. If nighttime, impulsive work is required, a construction noise monitoring program will be implemented to provide additional mitigation as necessary (in the form of noise control blankets or other temporary noise barriers, etc.) for affected receivers. |  |
| Impact CON-6: Construction activities have the potential to adversely affect water quality in nearby creeks. [Significant Impact; reduced to Less-than Significant with Mitigation]   | MM-CON-6.1: Active paved construction areas will be swept as needed.   |  |
|   | MM-CON-6.2: Silt fencing or straw wattles will be used to retain sediment on the project site.   |  |
|   | <b>MM-CON-6.3:</b> Temporary cover of disturbed surfaces or temporary slope protection measures will be provided per regulatory requirements and the Department's guidelines to help control erosion. Permanent cover/revegetation will be provided to stabilize the disturbed surfaces after construction has been completed.                                 |  |

| TABLE      Summary of environmental impacts and avoidance, minimization and/or mitigation measures   |   |  |
|--|---|--|
| Environmental Impact   | Avoidance, Minimization, Mitigation Measures  |  |
|  | <b>MM-CON-6.4:</b> No debris, soil, silt, sand, bark, slash, sawdust, cement, concrete, washings, petroleum products, or other organic or earthen material shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into any waterways. |  |
|  | <b>MM-CON-6.5:</b> Best Management Practices (BMPs) will be utilized by the contractor(s) during construction. The BMPs will be incorporated into a Stormwater Pollution Prevention Plan for the project, as required by the Department's NPDES permit.                 |  |
| Cumulative Impacts [EIR Section 2.23]  |   |  |
| Impact CUMUL-1: Construction of the proposed project will not result in any significant cumulative impacts. [Less-than-Significant Impact] | No avoidance, minimization, or mitigation measures are required.  |  |

| TABLE S-2  |  |   |  |
|--|--|---|--|
|  | PERMITS AND APPROVALS NEEDED   |   |  |
| Agency   | Permit/Approval  | Status  |  |
| City of Gilroy   | Encroachment permit for work extending onto<br>local streets within Gilroy   | Application to be submitted during final design.    |  |
| Santa Clara County                                       | Encroachment permit for work extending onto local streets within unincorporated areas of Santa Clara County  | Application to be submitted during final design.    |  |
| San Benito County  | Encroachment permit for work extending onto<br>local streets within unincorporated areas of San<br>Benito County   | Application to be submitted during final design.    |  |
| Santa Clara Valley<br>Water District                     | Permit for work in Carnadero Creek, Gavilan<br>Creek, Tick Creek, Tar Creek, and Pajaro River  | Application to be submitted during final design.    |  |
| San Benito County<br>Water District                      | Permit for work in Pajaro River, Murphy Creek,<br>San Benito River, and San Juan Creek   | Application to be submitted during final design.    |  |
| California Public<br>Utilities Commission                | Permit for any work affecting the UPRR crossings at Tar Creek/U.S. 101 & SR 25   | Application to be submitted during final design.    |  |
| NOAA Fisheries<br>(National Marine<br>Fisheries Service) | Section 7 Consultation for Threatened and<br>Endangered Species;<br>Review and Comment on 404 Permit   |   |  |
| U.S. Fish & Wildlife<br>Service                          | Section 7 Consultation for Threatened and<br>Endangered Species;<br>Review and Comment on 404 Permit   | ×.  |  |
| U.S. Army Corps of<br>Engineers                          | Section 404 permit for temporary and/or<br>permanent work in low-flow channels of<br>Carnadero Creek, Gavilan Creek, Tick Creek, Tar<br>Creek, Pajaro River, Murphy Creek, San Benito<br>River, and San Juan Creek                                   | Application to be submitted<br>during final design. |  |
| Regional Water<br>Quality Control<br>Board               | Section 401 Water Quality Certification for<br>temporary and/or permanent work in low-flow<br>channels of Carnadero Creek, Gavilan Creek, Tick<br>Creek, Tar Creek, Pajaro River, Murphy Creek,<br>San Benito River, and San Juan Creek              | Application to be submitted during final design.    |  |
| California<br>Department of Fish<br>& Wildlife           | Streambed Alteration Agreement for work in<br>Carnadero Creek, Gavilan Creek, Tick Creek, Tar<br>Creek, Pajaro River, Murphy Creek, San Benito<br>River, and San Juan Creek; Incidental Take Permit<br>for impacts to endangered/threatened species. | Application to be submitted during final design.    |  |

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