

Merced 140 Planada Intersection

In Merced County on State Route 140
in Planada at the intersection of Plainsburg Road

10-MER-140-PM 43.5/43.9

10-1M170 (1020000188)

Initial Study with Proposed Negative Declaration

Volume 1 of 2



Prepared by the
State of California Department of Transportation

May 2022



General Information About This Document

What's in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts of alternatives being considered for the proposed project in Merced County in California. The document explains why the project is being proposed, the alternatives being considered for the project, the existing environment that could be affected by the project, potential impacts of each of the alternatives, and proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read the document. Additional copies of the document and the related technical studies are available for review at the following location: the Caltrans District 10 Office at 1976 East Dr. Martin Luther King Jr. Boulevard, Stockton, California, 95205. Volume 1 of this document may be downloaded at the following website: <https://dot.ca.gov/caltrans-near-me/district-10/district-10-current-projects#cnty-merced>.
- Attend the public information meeting/public hearing on 08/18/2022.
- Tell us what you think. If you have any comments regarding the proposed project, please attend the public meeting/public hearing, and/or send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to: John Thomas, Senior Environmental Planner, District 6 Environmental, California Department of Transportation, 2015 East Shields, Suite 100, Fresno, California 93726. Submit comments via email to: john.q.thomas@dot.ca.gov.
- Submit comments by the deadline: August 30, 2022

What happens next:

After comments are received from the public and reviewing agencies, Caltrans may 1) give environmental approval to the proposed project, 2) do additional environmental studies, or 3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could design and construct all or part of the project.

Printing this document: To save paper, this document has been set up for two-sided printing (to print the front and back of a page). Blank pages occur where needed throughout the document to maintain proper layout of the chapters and appendices.

Document prepared by: Juan C. Torres, Associate Environmental Planner

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please write to or call Caltrans, Attention: John Q. Thomas, District 6 Environmental, 2015 East Shields Avenue, Suite 100, Fresno, California 93726; phone number 559-408-4496 (Voice), or use the California Relay Service 1-800-735-2929 (Teletype to Voice), 1-800-735-2922 (Voice to Teletype), 1-800-855-3000 (Spanish Teletype to Voice and Voice to Teletype), 1-800-854-7784 (Spanish and English Speech-to-Speech), or 711.

Intersection control improvement on State Route 140
in Planada at the intersection of Plainsburg Road in Merced County

**INITIAL STUDY
with Proposed Negative Declaration**

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation
and
The County of Merced

Responsible Agency: California Transportation Commission

Philip Vallejo

Philip Vallejo
Environmental Office Chief
Central Region Services
California Department of Transportation
CEQA Lead Agency

5/27/2022

Date

The following individual can be contacted for more information about this document:

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Proposed Negative Declaration

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: pending

District-County-Route-Post Mile: 10-MER-140-PM 43.5/43.9

EA/Project Number: 10-1M1700 (1020000188)

Project Description

The California Department of Transportation (Caltrans) proposes a safety improvement project on State Route 140 from post miles 43.5 to 43.9 to improve the intersection control where the route meets Plainsburg Road near Planada in Merced County. State Route 140 at Plainsburg Road is a four-legged intersection with stop-control access along Plainsburg Road and State Route 140. The project proposes to reduce the number and severity of broadside and head-on collisions at this location by improving the intersection control.

Determination

An Initial Study has been prepared by Caltrans, District 10. On the basis of this study, it is determined that the proposed action will not have a significant effect on the environment for the following reasons:

- The project will have “No Impact” on the following resources: Aesthetics, Agriculture and Forest Resources, Air Quality, Biological Resources, Cultural Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation, Tribal Cultural Resources, Utility and Service Systems, and Wildfire.
- The project will have a “Less than Significant Impact” on the following resources with the implementation of the proposed minimization measures:
 - **Hazardous Waste**—A Lead Compliance Plan and the appropriate project Standard Special Provisions/Non-Standard Special Provisions will be edited for the project and provided during the Plans, Specifications and Estimates (PS&E) phase.

Philip Vallejo
Environmental Office Chief
Central Region Services
California Department of Transportation
CEQA Lead Agency

Date

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Chapter 1 **Proposed Project**

1.1 Introduction

State Route 140 is a west-to-east corridor that begins at Interstate 5, west of the City of Gustine in Merced County, and ends at the Yosemite National Park boundary near El Portal in Mariposa County. It goes through the flat agricultural land of the San Joaquin Valley through Merced County and continues southeast through the foothills of Mariposa County.

State Route 140 is a year-round highway serving the cities of Gustine and Merced, and the communities of Planada, Catheys Valley, Mariposa, Midpines, Briceburg, and El Portal. Along this corridor are various nature and recreational areas, including the San Luis National Wildlife Refuge, Kesterson National Wildlife Refuge, Sierra National Forest, and Yosemite National Park.

Except for a short four-lane section through the city of Merced, State Route 140 is a two-lane conventional highway for its entire length. A route break of 1.9 miles occurs in the city of Merced where State Route 140 runs concurrent with State Route 99. State Route 140 also runs concurrent with State Route 49 through a portion of Mariposa County, from the South Junction of State Route 49 through the North Junction of State Route 49. State Route 140 passes through flat terrain in Merced County, changes into rolling terrain in Mariposa County and then changes into mountainous terrain as it approaches Yosemite National Park and Yosemite Valley.

This intersection project is in the 2018 Regional Transportation Plan/Sustainable Communities Strategy for Merced County Association of Governments as a regionally significant project and is listed on the Tier 1 project list.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the project is to reduce the number and severity of broadside and head-on collisions at the intersection of State Route 140 and Plainsburg Road through intersection control improvements.

1.2.2 Need

During a five-year period, from July 1, 2015 through June 30, 2020, 14 collisions have occurred at this intersection, where no traffic signals exist. This pattern of broadside collisions has been identified at the intersection due to motorists' failure to yield.

While the proposed project was in development, the Caltrans Traffic Operations/Maintenance crew installed a four-way-stop at the intersection to bring a temporary measure of more traffic control to the intersection until a permanent solution could be implemented.

1.3 Project Description

State Route 140 and Plainsburg Road form a four-legged intersection with stop-control access (currently, stop signs at all four legs of the intersection). At this intersection, State Route 140 is a two-lane undivided roadway that goes in an east-west direction through the town of Planada. The roadway has two 12-foot-wide travel lanes with 8-foot-wide shoulders. Eastbound State Route 140 has an existing designated left-turn lane, and westbound State Route 140 has an existing two-way left-turn lane. A bike lane exists along State Route 140 on the eastern leg of the intersection in both directions. See Figure 1-1 for the project vicinity map and Figure 1-2 for the project location map.

Figure 1-1 Project Vicinity Map

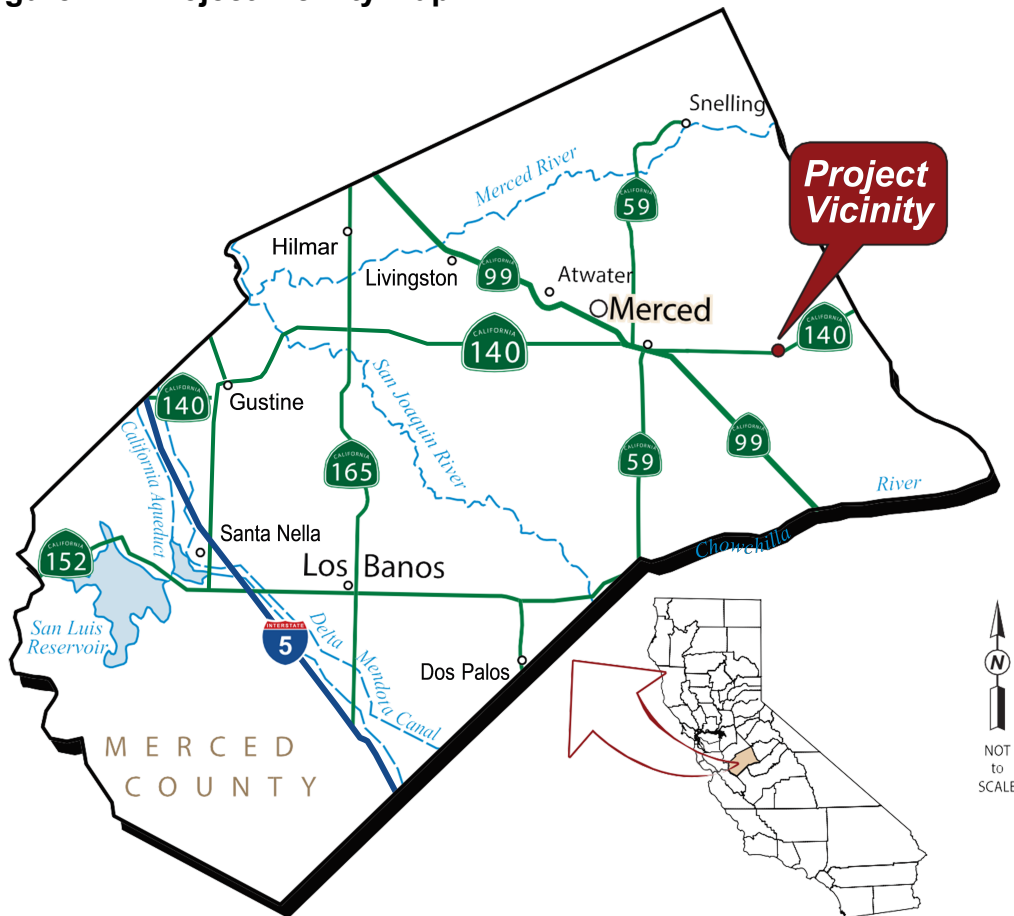
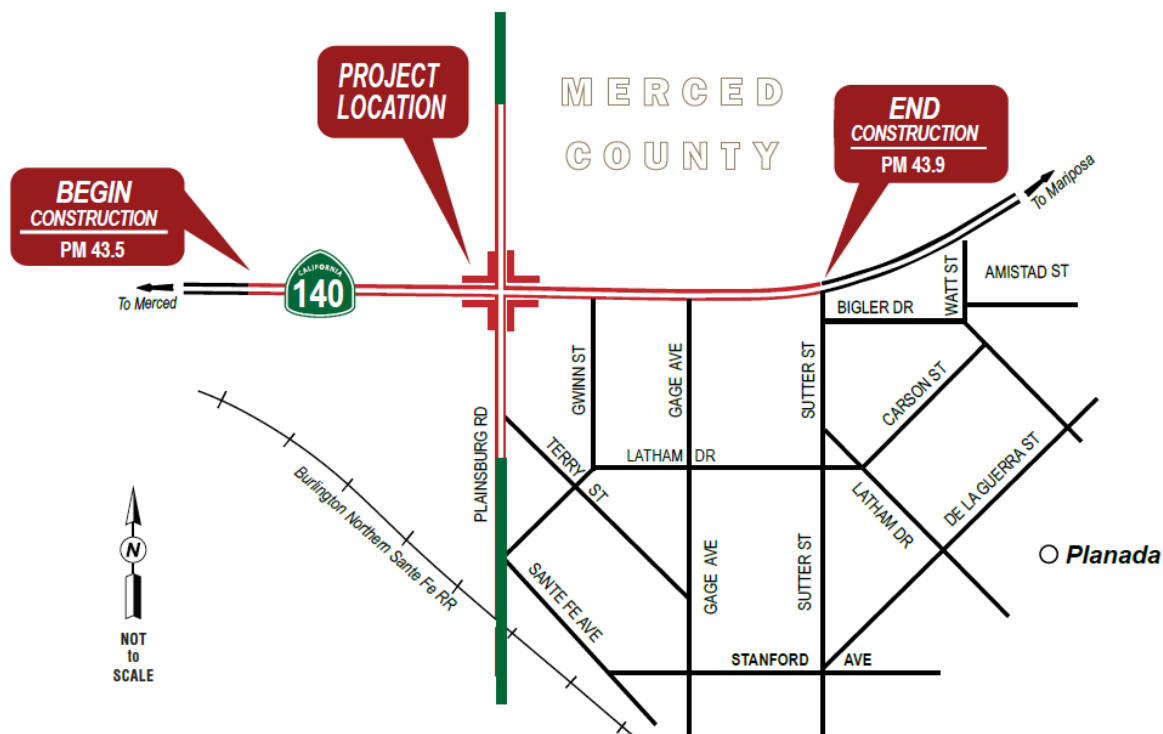


Figure 1-2 Project Location Map



Three project alternatives are proposed: Alternative 1 would construct a roundabout, Alternative 2 would install a traffic signal, and Alternative 3 is the No-Build Alternative. Additional right-of-way and utility relocation would be required. As noted earlier, interim improvements to the intersection were implemented by the Caltrans Field Maintenance crew through Traffic Safety on December 15, 2020—with the installation of stop signs at the intersection.

This project is anticipated to be amended into the 2020 State Highway Operation and Protection Program (SHOPP) under the Safety Improvements Program (201.010) for delivery in fiscal year 2023/2024.

1.4 Project Alternatives

This project contains a number of standardized project measures that are used on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project. These measures are listed later in this chapter under “Standard Measures and Best Management Practices Included in All Build Alternatives.”

1.4.1 Build Alternatives

Alternative 1 – Roundabout

This alternative would construct a single-lane roundabout at the intersection of State Route 140 and Plainsburg Road in the town of Planada. Constructing a roundabout at the intersection would effectively reduce vehicle delay, improve traffic flow, and reduce the potential and severity of broadside collisions.

This alternative was designed to accommodate Surface Transportation Assistance Act (known by the acronym STAA) vehicles, in particular large trucks. For single-lane roundabouts accommodating STAA trucks, the National Cooperative Highway Research Program recommends an inscribed circle diameter of 130 to 180 feet; this roundabout has been designed to a diameter of 135 feet to accommodate STAA trucks.

The roundabout is designed with a 20- to 25-mile-per-hour entry speed for a single-lane roundabout. Due to the location of the intersection, a high-speed approach design for the splitter island would be used on the eastbound approach. The wider splitter island consisting of reversing curves is required to separate traffic and ensure proper speed reduction entering the roundabout. The length of the splitter islands would range from 200 to 300 feet and be composed of concrete curb and gutter. The width of the circulating lane would be 20 feet. Preferably, the cross slope of the approach and circulating lane would be two percent, sloping outward from the splitter and central island. A 15-foot-wide mountable truck apron would line the inside edge of the roundabout's central island, which would allow the vehicles and their trailers to safely maneuver through the roundabout.

The design of the proposed roundabout will be consistent with National Cooperative Highway Research Program 672 and Highway Design Manual Index 405.10 with no nonstandard features being proposed.

Each approach would require widening for the splitter island and pedestrian crossings, Americans with Disabilities Act elements, and curb and gutter, which would also be included in the project. Bike and pedestrian facilities would also be provided. The bicycle facility would be Type 3, and the pedestrian facility would have Americans with Disabilities Act ramps and sidewalks included for the project.

The total capital outlay cost for this alternative is \$4,901,000, broken down as follows:

- Roadway—\$4,020,620
- Structures—\$0
- Right-of-way—\$880,380

Alternative 2 – Signalization

This alternative would add traffic signals to the intersection. To the east and west of the intersection, State Route 140 would be composed of one through right-turn lane, and a left-turn lane pocket to Plainsburg Road. To the northbound direction of the intersection, Plainsburg Road would be composed of a shared through right-turn lane and a left-turn lane to enter eastbound State Route 140. To the southbound direction of the intersection, Plainsburg Road would be composed of a shared through right-turn lane and a left-turn lane to enter westbound State Route 140. This alternative would require roadway widening to make it standard for the shoulder and provide enough tapering and decelerating length needed for the dedicated left-turn movement onto Plainsburg Road.

To facilitate bicycle and pedestrian crossing, this alternative would add Americans with Disabilities Act-compliant curb ramps, blended transitions, bike lanes, and crosswalks. In addition, to meet Complete Street requirements, this project will consider the number of elements and quantities needed to improve mobility for low-income and low-mobility users to and from the town of Planada. This alternative requires additional right-of-way from two parcels west of the intersection.

Improvements to the channelization would require saw-cutting of the pavements and roadway excavation. The new pavements can be placed with hot mix asphalt in two lifts, and the loop detectors can be saw-cut into the first lift, providing a seamless installation. For existing pavement, new trenching for electrical conduits, placements of new loop detectors, and placements of a control box would also be required. Illumination of the intersection would be added to improve visibility, and advanced warning signs and flashing beacons would be included.

The total capital outlay cost for this alternative is \$3,529,232, broken down as follows:

- Roadway—\$3,014,600
- Structures—\$0
- Right-of-way—\$514,632

Reversible Lanes

This project does not qualify as a capacity-increasing or a major street or highway realignment project. The concept of reversible lanes is not considered because this project does not involve the following roadway elements: high-occupancy vehicle lanes, ramp metering, California Highway Patrol enforcement activities, highway planting and irrigation, erosion control, noise barriers, and earth-retaining systems.

1.4.2 No-Build (No-Action) Alternative

Alternative 3 – No-Build Alternative

The No-Build Alternative requires no action to be taken. It would leave the intersection of State Route 140 and Plainsburg Road as it is with existing stop signs. It would not address the need to reduce the number and severity of broadside and head-on collisions at the intersection. The No-Build Alternative does not meet the purpose and need of the project to reduce broadside collisions and improve the traffic control at the intersection.

1.5 Standard Measures and Best Management Practices Included in All Build Alternatives

This project contains a number of standardized project measures that are used on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project.

The following are some of the standardized project measures that are expected on this project:

- Standard specifications dealing with the discovery of unanticipated cultural materials or human remains would be included in the project plans and specification.
- Construction activities would be managed such that there is a reduction in the discharge of pollutants to surface waters, groundwaters and municipal-separate storm water systems.
- The project would comply with air pollution control rules, regulations, ordinances, and statutes.
- Noise will not exceed 86 dBA Lmax at 50 feet from the job site from 9:00 p.m. to 6:00 p.m.
- Equipment used in and around the waterways would be in good working order and free of dripping or leaking engine fluids. All vehicle maintenance would be performed outside of the bed, bank or channel of the waterways.
- The Stormwater Pollution Prevention Plan would include a hazardous spill prevention, control, and countermeasure plan. The plan would include onsite handling rules to keep construction and maintenance materials from entering the river, including procedures related to refueling, operating, storing, and staging construction equipment, and preventing and responding to spills. The plan would also identify the parties responsible for monitoring the spill response. During construction, any spills would be

cleaned up immediately, according to the hazardous spill prevention, control, and countermeasure plan.

- Discharge from dewatering operations, if needed, and runoff from disturbed areas would be made to conform to the water quality requirements of the waste discharge permit issued by the Regional Water Quality Control Board.
- An appropriate seed mix of native species would be planted in disturbed areas upon completion of construction.
- The project would avoid earth or organic material from being deposited or placed where it may be directly carried into a water channel.

1.6 Discussion of the NEPA Categorical Exclusion

This document contains information regarding compliance with the California Environmental Quality Act (known by the acronym CEQA) and other state laws and regulations. Separate environmental documentation, supporting a Categorical Exclusion determination, will be prepared in accordance with the National Environmental Policy Act (known by the acronym NEPA). When needed for clarity, or as required by CEQA, this document may contain references to federal laws and/or regulations (CEQA, for example, requires consideration of adverse effects on species identified as a candidate, sensitive, or special-status species by the U.S. National Marine Fisheries Service and the U.S. Fish and Wildlife Service—in other words, species protected by the Federal Endangered Species Act).

1.7 Permits and Approvals Needed

No permits, licenses, agreements, and certifications are required for project construction.

Chapter 2 CEQA Evaluation

2.1 CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. Potential impact determinations include Significant and Unavoidable Impact, Less Than Significant Impact With Mitigation Incorporated, Less Than Significant Impact, and No Impact. In many cases, background studies performed in connection with a project will indicate that there are no impacts to a particular resource. A “No Impact” answer reflects this determination. The questions in this checklist are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project and standardized measures that are applied to all or most Caltrans projects such as Best Management Practices and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be an integral part of the project and have been considered prior to any significance determinations documented below.

“No Impact” determinations in each section are based on the scope, description, and location of the proposed project as well as the appropriate technical report (bound separately in Volume 2), and no further discussion is included in this document.

2.1.1 Aesthetics

Considering the information in the Scenic Resources Evaluation/Visual Impact Assessment dated January 17, 2022, the following significance determinations have been made:

Except as provided in Public Resources Code Section 21099:

Question—Would the project:	CEQA Significance Determinations for Aesthetics
a) Have a substantial adverse effect on a scenic vista?	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No Impact

Question—Would the project:	CEQA Significance Determinations for Aesthetics
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 a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	No Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	No Impact

2.1.2 Agriculture and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. 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 the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Considering the information in the Right-of-Way Data Sheet dated July 7, 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Agriculture and Forest Resources
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No Impact

Question—Would the project:	CEQA Significance Determinations for Agriculture and Forest Resources
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No Impact
c) Conflict with existing zoning, 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))?	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	No Impact

2.1.3 Air Quality

Considering the information in the Air Quality Memo dated August 31, 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Air Quality
a) Conflict with or obstruct implementation of the applicable air quality plan?	No Impact
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	No Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	No Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	No Impact

2.1.4 Biological Resources

Considering the information in the Biological Resources Evaluation Memo dated September 24, 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Biological Resources
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or National Oceanic Atmospheric Administration Fisheries?	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	No Impact
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	No Impact
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?	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No Impact

2.1.5 Cultural Resources

Considering the information in the Section 106, CEQA and Public Resources Code 5024 Compliance-Screened Project Memo dated September 14, 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Cultural Resources
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	No Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	No Impact

2.1.6 Energy

Considering the information in the Air Quality Memo dated August 31, 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Energy
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No Impact

2.1.7 Geology and Soils

Considering the information in the Geologic Hazards Study, Merced Campus Parkway dated June 2001 and the Paleontological Identification Report dated June 7, 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	No Impact
ii) Strong seismic ground shaking?	No Impact
iii) Seismic-related ground failure, including liquefaction?	No Impact
iv) Landslides?	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	No Impact
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-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No Impact

2.1.8 Greenhouse Gas Emissions

Considering the information in the Air Quality Memo dated August 31, 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Greenhouse Gas Emissions
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	No Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	No Impact

2.1.9 Hazards and Hazardous Materials

Considering the information in the Initial Site Assessment and Preliminary Site Investigation dated October 13, 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	No Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Less Than Significant Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	No Impact

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	No Impact

Affected Environment

The GeoTracker and EnviroStor database searches identified the following hazardous waste sites within the footprint of the project area; because portions of these properties would be acquired, additional hazardous waste studies became necessary.

Site Name	Location	Case Status	Closure Date	Current Use
Exxon Service Station (El Campo Market)	8935 Highway 140, Planada (southwest quadrant of project area)	Closed Leaking Underground Storage Tank Site	November 16, 1998, Merced County Environmental Health Division	Source removal, groundwater monitoring
Strolling's Service (Dollar General Store)	9041 Highway 140, Planada (southeast quadrant of project area)	Closed Leaking Underground Storage Tank Site	July 25, 2006, Merced County Environmental Health Division	Source removal, groundwater monitoring

Environmental Consequences

Preliminary Site Investigation—Aerially Deposited Lead

A Preliminary Site Investigation was conducted in August 2021. The survey involved 12 hand auger borings to a total depth of 3 feet below ground surface to collect soil samples. Soil samples were collected from each boring at the following intervals: surface to 0.5 foot below ground surface (Layer 1), 1.0 to 1.5 feet below ground surface (Layer 2), and 2.5 to 3 feet below ground surface (Layer 3), totaling 36 soil samples. The borings were located on the northeast, northwest, and southwest quadrant of the State Route 140 and Plainsburg Road intersection. No access agreement was obtained for the property on the southeastern quadrant of the project intersection.

Total lead concentrations ranged from 3.4 to 200 milligrams per kilogram (all Layers). The 95% Upper Confidence Level for total lead was calculated to be 48.6 milligrams per kilogram (all Layers). Soluble lead was analyzed in 10 samples; soluble lead concentrations ranged from 0.52 to 10 milligrams per

liter. The 95% Upper Confidence Level for soluble lead was calculated to be 1.3 milligrams per liter.

The pH values ranged from 6.4 to 7.4, which is within the range of non-hazardous waste and within the guidance of the Aerially Deposited Lead Agreement (Department of Toxic Substances Control).

Based on the reported concentrations, Soil Layer 1 is classified as Type Com (re-use on-site permitted with proper management or disposal at an off-site Class II facility). Soil Layers 2 and 3, as well as any combination of soil layers, are qualified as unregulated, non-hazardous material and may therefore be reused within the Caltrans right-of-way, relinquished to the contractor, or disposed of as a non-hazardous/non-regulated material. Additional soil sampling may be required by the receiving disposal facility.

Preliminary Site Investigation—Total Petroleum Hydrocarbons/Volatile Organic Compounds/Lead

Because no access was granted to the southeastern quadrant of the project area, no soil sampling was done at the property of the Dollar General Store. The adjacent property on the southwestern quadrant of the intersection was investigated to a depth of 15 feet below the surface for Total Petroleum Hydrocarbons for gasoline-, diesel-, and oil-range organics, volatile organic compounds (VOCs, benzene, toluene, ethylbenzene, xylenes [BTEX], methyl tert-butyl ether [MTBE]), and lead. There, 12 soil samples were collected at 4 boring locations at depths of 5 (via hand auger), 10 (via drill rig), and 15 (via drill rig) feet.

The 12 samples were analyzed for Total Petroleum Hydrocarbons for gasoline-range organics, benzene, toluene, ethylbenzene, xylenes, and methyl tert-butyl ether; all concentrations were below the laboratory detection limits.

Two samples were analyzed for Total Petroleum Hydrocarbons for diesel- and oil-range organics. Diesel-range organics concentrations were below the laboratory detection limits; oil-range organics concentrations were below the regulatory thresholds by several orders of magnitude (highest concentration was estimated to be 0.64 milligrams per kilogram, the Regional Screening Level for industrial soils is 30,000 milligrams per kilogram).

Total lead concentrations ranged from 3.3 to 4.1 milligrams per kilogram in the four soil samples analyzed. This range is below the residential soil screening level set forth by the Department of Toxic Substances Control Human and Ecological Risk Office (HERO).

Conclusions

Near surface soils throughout the project area are minimally impacted by aerially deposited lead. Soil Layer 1 is classified as Type Com (re-use on-site

permitted with proper management or disposal at an off-site Class II facility). Soil Layers 2 and 3, as well as any combination of soil layers, are qualified as unregulated, non-hazardous material.

Avoidance, Minimization, and/or Mitigation Measures

A lead compliance plan developed by a Certified Industrial Hygienist is required for the project. Caltrans’ Standard Special Provision 7-1.02K(6)(j)(iii) Earth Material Containing Lead requires a lead compliance plan when lead concentrations are non-hazardous (with management guidance for Layer 1 soil) or whenever disturbance (e.g., excavation) of earth material (i.e., soil) that could result in lead exposure will occur and disposal in a permitted landfill is not required.

If guardrails, signposts, or other sources of treated wood waste are to be removed during construction, Non-Standard Special Provision 14-11.14 – Treated Wood Waste will be included in the bid package.

Residue from the removal of yellow thermoplastic pavement marking and/or yellow painted traffic stripe may contain lead chromate. Residue produced from the separate removal of any yellow thermoplastic pavement marking and/or yellow painted traffic stripe may contain heavy metals in concentrations that exceed thresholds established by the Health and Safety Code and 22 California Code of Regulations. If yellow striping will be removed separately, Standard Special Provision 14-11.12 will be included in the bid package for proper management of hazardous waste residue and a lead compliance plan. Standard Special Provisions 36-4 and/or 84-9.03B will be included in the bid package for work involving residue from grinding and cold-planing that contains lead from paint and thermoplastic material and addresses the need for a lead compliance plan.

The appropriate project Standard Special Provisions and Non-Standard Special Provisions will be edited for the project and provided during the Plans, Specifications and Estimates phase of the project.

2.1.10 Hydrology and Water Quality

Considering the information in the Water Compliance Memorandum dated May 28, 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality?	No Impact

Question—Would the project:	CEQA Significance Determinations for Hydrology and 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?	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on-site or off-site;	No Impact
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-site or offsite;	No Impact
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	No Impact
(iv) impede or redirect flood flows?	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No Impact

2.1.11 Land Use and Planning

Considering the information in the 2030 Merced County General Plan, dated December 10, 2013, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Land Use and Planning
a) Physically divide an established community?	No Impact

Question—Would the project:	CEQA Significance Determinations for Land Use and Planning
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	No Impact

2.1.12 Mineral Resources

Considering the information in the 2030 Merced County General Plan dated December 10, 2013, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Mineral Resources
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	No Impact
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	No Impact

2.1.13 Noise

Considering the information in the noise compliance study dated July 14, 2021, the following significance determinations have been made: No adverse noise impacts. This project will not likely introduce a potential for long-term traffic noise impacts because it does not increase the number of through-traffic lanes or significantly change alignment as described in Caltrans’ Traffic Noise Analysis Protocol. However, during construction, the project would comply with Caltrans Standard Specification Section 14-8 “Noise Control” regarding construction-related noise.

Question—Would the project result in:	CEQA Significance Determinations for Noise
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	No Impact

Question—Would the project result in:	CEQA Significance Determinations for Noise
b) Generation of excessive groundborne vibration or groundborne noise levels?	No Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	No Impact

2.1.14 Population and Housing

Considering the information in the 2030 Merced County General Plan dated December 10, 2013, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Population and Housing
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	No Impact
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No Impact

2.1.15 Public Services

Considering the information in the 2030 Merced County General Plan dated December 10, 2013, the following significance determinations have been made:

Question:	CEQA Significance Determinations for Public Services
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection?	No Impact
Police protection?	No Impact
Schools?	No Impact
Parks?	No Impact
Other public facilities?	No Impact

2.1.16 Recreation

Considering the information in project maps and the 2030 Merced County General Plan dated December 10, 2013, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Recreation
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	No Impact

2.1.17 Transportation

Considering the information in the project design plans and the 2030 Merced County General Plan dated December 10, 2013, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Transportation
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	No Impact
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	No Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	No Impact
d) Result in inadequate emergency access?	No Impact

2.1.18 Tribal Cultural Resources

Considering the information in the Section 106, CEQA and Public Resources Code 5024 Compliance-Screened Project Memo dated September 14, 2021, the following significance determinations have been made:

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

Question:	CEQA Significance Determinations for Tribal Cultural Resources
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	No Impact

Question:	CEQA Significance Determinations for Tribal Cultural Resources
<p>b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p>	<p>No Impact</p>

2.1.19 Utilities and Service Systems

Considering the information in the Right-of-Way Data Sheet dated July 7, 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
<p>a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?</p>	<p>No Impact</p>
<p>b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?</p>	<p>No Impact</p>
<p>c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?</p>	<p>No Impact</p>
<p>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?</p>	<p>No Impact</p>

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No Impact

2.1.20 Wildfire

The California Department of Forestry and Fire Protection’s Fire Hazard Severity Zone mapping tool and Caltrans’ Climate Change Vulnerability Assessment mapping tool were used to analyze the project area for fire vulnerabilities. Information from the mapping tools was considered, and the following significance determinations have been made:

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

Question—Would the project:	CEQA Significance Determinations for Wildfire
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	No Impact
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	No Impact
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?	No Impact
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?	No Impact

2.1.21 Mandatory Findings of Significance

Question:	CEQA Significance Determinations for Mandatory Findings of Significance
<p>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 a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?</p>	<p>No Impact</p>
<p>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.)</p>	<p>No Impact</p>
<p>c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</p>	<p>No Impact</p>

Appendix A Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

Govin Newsom, Governor

DEPARTMENT OF TRANSPORTATION

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Making Conservation
a California Way of Life.

September 2021

NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures *"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."*

Caltrans will make every effort to ensure nondiscrimination in all of its services, programs and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, or national origin. In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a nondiscriminatory manner.

Related federal statutes, remedies, and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 324-8379 or visit the following web page:
<https://dot.ca.gov/programs/civil-rights/title-vi>.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at 1823 14th Street, MS-79, Sacramento, CA 95811; PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 324-8379 (TTY 711); or at Title.VI@dot.ca.gov.

A handwritten signature in blue ink, appearing to read 'Toks Omishakin'.

Toks Omishakin
Director

"Provide a safe and reliable transportation network that serves all people and respects the environment."

List of Technical Studies Bound Separately (Volume 2)

Right of Way Datasheet

Air Quality Report

Noise Study Report

Water Quality Report

Natural Environment Study

Location Hydraulic Study

Cultural Screening Memo

Hazardous Waste Reports

- Initial Site Assessment
- Preliminary Site Investigation

Scenic Resource Evaluation/Visual Assessment

Initial Paleontology Study

To obtain a copy of one or more of these technical studies/reports or the Initial Study, please send your request to:

John Thomas

District 6 Environmental, California Department of Transportation
2015 East Shields Avenue, Suite 100, Fresno, California 93726

Or send your request via email to: john.q.thomas@dot.ca.gov

Or call: (559) 408-4496

Please provide the following information in your request:

Merced 140 Planada Intersection

In Merced County on State Route 140 near Planada at the intersection of
Plainsburg Road

10-MER-140-PM 43.5/43.9

10-1M1700 (1020000188)