Reef City Capital Maintenance (CAPM)

On State Route 41 near Reef City in Kings County from the Kern County line to 0.8 mile west of the Interstate 5/State Route 41 Separation

06-KIN-41-0.0/15.5
0619000004

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 Kings 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 Caltrans district office at 1352 West Olive Avenue, Fresno, California 93728, weekdays from 8:00 a.m. to 4:00 p.m., and at the Kettleman City Library at 104 Becky Pease Street, Kettleman City, California 93239, Tuesday to Thursday from 2:00 p.m. to 7:00 p.m.

- Tell us what you think. If you have any comments regarding the proposed project, send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to: G. William "Trais" Norris III, District 6 Environmental, California Department of Transportation, 2015 East Shields Avenue, Suite 100, Fresno, California 93726. Submit comments via email to: trais.norris@dot.ca.gov.

- Submit comments by the deadline: July 11, 2022.

What happens next:

After comments are received from the public and the 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.

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: G. William "Trais" Norris III, Environmental Division, 2015 East Shields Avenue, Suite 200, Fresno, California 93726; phone number 209-601-3521 (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.

Preserve and resurface State Route 41 in Kings County from the Kern County line to 0.8 mile west of the Interstate 5/State Route 41 separation

INITIAL STUDY
with Proposed Negative Declaration

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

THE STATE OF CALIFORNIA
Department of Transportation

Responsible Agency: California Transportation Commission

Jennifer H Taylor

Jennifer H. Taylor
Environmental Office Chief, District 6
California Department of Transportation
CEQA Lead Agency

05/26/2022
Date

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

G. William "Trais" Norris III, 2015 East Shields Avenue, Suite 100, Fresno, California 93726, phone (209) 601-3521

DRAFT
Proposed Negative Declaration

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: Pending

District-County-Route-Post Mile: 06-KIN-41-0.0/15.5

EA/Project Number: 06-0Y170/0619000004

Project Description

The California Department of Transportation (Caltrans) proposes to resurface, restore, and rehabilitate the roadway on State Route 41 near Reef City in Kings County, from the Kern County line to 0.8 mile west of the Interstate 5/State Route 41 separation. Other work includes upgrading guardrails to the Mid-West system, replacing existing dikes, installing centerline and shoulder rumble strips, and installing or replacing various Intelligent Transportation Systems elements. Bicycle-friendly grates would be provided in the areas of bike paths. Culverts at 13 locations would be replaced or rehabbed.

Determination

This proposed Negative Declaration is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt a Negative Declaration for this project. This does not mean that Caltrans' decision on the project is final. This Negative Declaration is subject to change based on comments received from interested agencies and the public. Caltrans has prepared an Initial Study for this project and, pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons.

The project would have no effect on aesthetics, farmland, air quality, recreational facilities, forest resources, geology and soils, paleontological resources, hazardous waste and materials, land use, mineral resources, noise, energy, public services, cultural resources, tribal cultural resources, invasive species, traffic and transportation, population and housing, utilities and service systems, and wildfire.

The project would have no significant effect on biological resources, cultural resources, hydrology and floodplains, water quality, and greenhouse gas emissions.

_____

Jennifer H. Taylor
Environmental Office Chief, District 6
California Department of Transportation
CEQA Lead Agency

_____

Date

Table of Contents

Chapter 1 Proposed Project

1.1 Introduction

The Reef City Capital Maintenance (CAPM) project is located on State Route 41, south of Kettleman City, in Kings County. The project lies between the southern coastal mountain range and the Sierra Nevada Mountain range where the topography flattens out into a valley. Land use within the project area is designated agricultural, commercial and open space. The surrounding land adjacent to the roadway is rural and used mostly for cattle grazing.

1.2 Purpose and Need

State Route 41 is a major north-south arterial highway with a high percentage of truck traffic. Within the project limits, it is a two-lane undivided highway. The project would preserve and resurface the existing two-lane undivided highway to a state of good repair for the traveling public.

1.2.1 Purpose

The purpose of the project is to preserve and rehabilitate the existing pavement, extend the life of the roadway, and minimize future maintenance costs.

1.2.2 Need

The condition of the pavement within the project limits has deteriorated due to the high volume of truck traffic. This has resulted in increased costs to maintain the existing pavement. Restoring the roadway to a state of good repair would minimize maintenance costs and result in smoother pavement surfaces that could lead to improved vehicle operations, reduced emissions, and reduced energy consumption.

1.3 Project Description

The project would resurface, restore, and rehabilitate the roadway on State Route 41 near Reef City in Kings County, from the Kern County line to 0.8 mile west of the Interstate 5/State Route 41 separation. See Figures 1-1 and 1-2 for location and vicinity maps. Other work includes upgrading guardrails to the Mid-West system, replacing existing dikes, installing centerline and shoulder rumble strips, and installing or replacing various Intelligent Transportation Systems elements. Bicycle-friendly grates would be provided in the areas of bike paths. Culverts at 13 locations would be replaced or rehabilitated.

Under consideration for the project are a build alternative and a no-build alternative. Current project costs include the following:

Support costs: $2,800,000

Construction costs: $18,500,000

Figure 1-1 Project Location Map

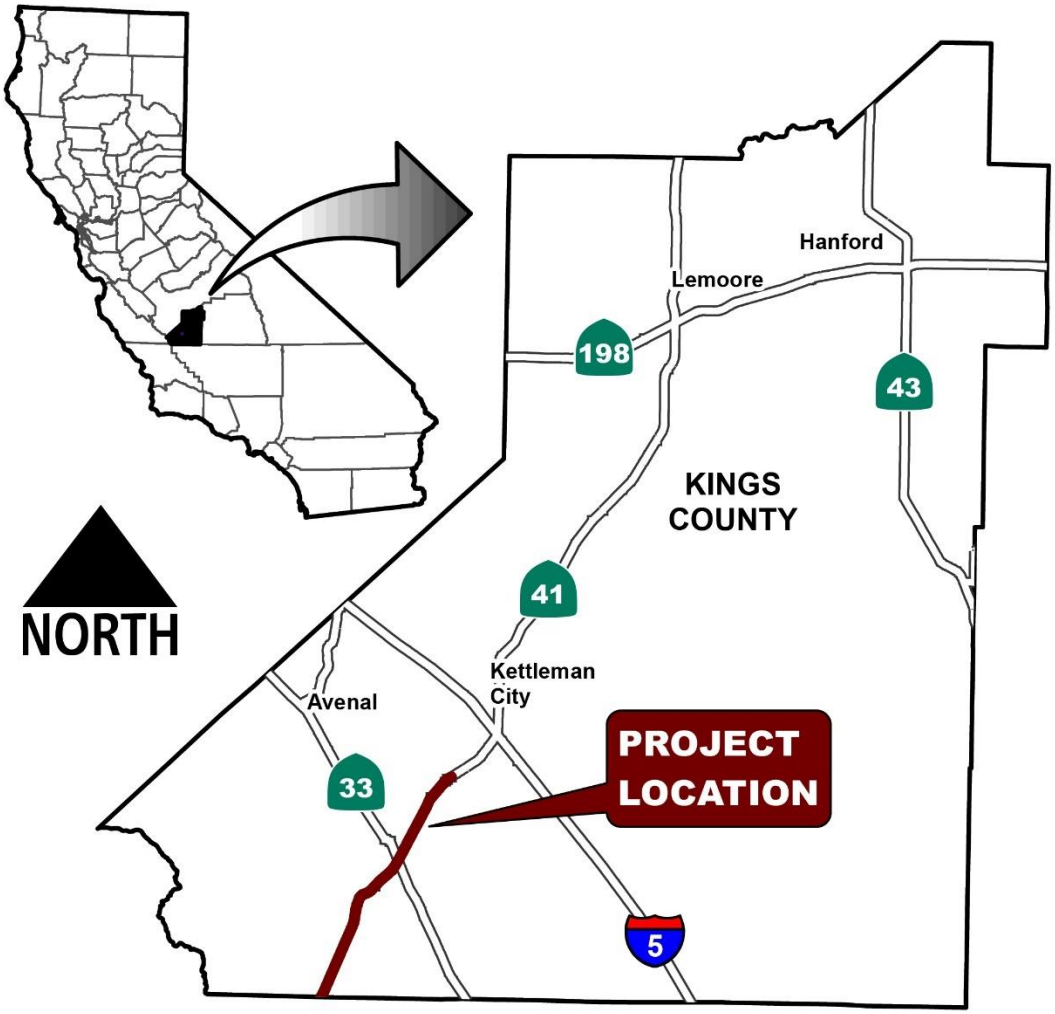
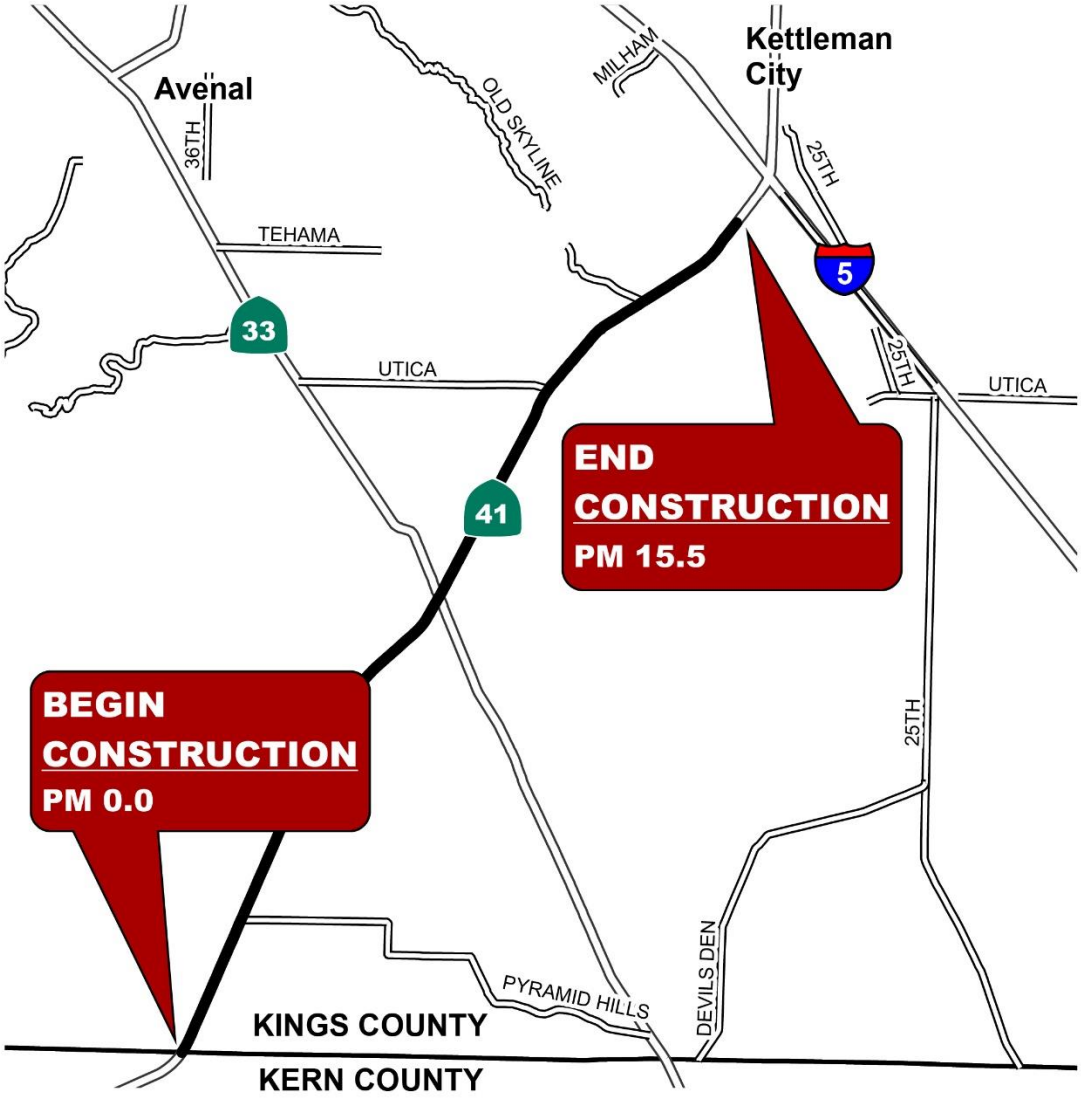


Figure 1-2 Project Vicinity Map



1.4 Project Alternatives

A build alternative and a no-build alternative are being considered for the project.

1.4.1 Build Alternative

The project lies near Reef City and runs from the Kern County line to 0.8 mile west of the Interstate 5/State Route 41 separation. Failed areas in the existing pavement would be repaired with hot mix asphalt, and cracks would be sealed by asphalt. Preservation of the existing pavement would consist of removing and replacing 0.2 foot of the asphalt concrete pavement with hot

mix asphalt and then overlaying the entire pavement with 0.1 foot of rubberized hot mix asphalt. Other work includes upgrading guardrails to the Mid-West system, replacing existing dikes, installing centerline and shoulder rumble strips, and installing or replacing various Intelligent Transportation Systems elements. Bicycle-friendly grates would be provided in the areas of bike paths. Culverts at 13 locations would be replaced or rehabilitated.

No new right-of-way is required for this project.

Construction is anticipated to begin in the spring of 2025 and will take approximately 200 working days to complete. At this time, most of the work is anticipated to occur during the day. Night work is anticipated for some of the work activities because of the existing traffic conditions; however, the number of nights for night work has not been determined. The work at each culvert location is expected to take up to 10 hours per working day/night.

Traffic operations and project staging have not been finalized at this time. It is anticipated alternating one-way reversing traffic control will be implemented. Traffic may be shifted to the shoulder for the proposed work at most locations. No traffic detours are proposed at this time.

This project contains several 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.”

1.4.2 No-Build (No-Action) Alternative

State Route 41 would remain as it currently exists under the no-build alternative. There would be no improvements to the roadway.

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

14-1.02 Environmentally Sensitive Area: Pertains to environmentally sensitive areas marked on the ground. Do not enter an environmentally sensitive area unless authorized. If breached, immediately stop all work within 60 feet of the boundary, secure the area, and notify the engineer.

14-2.03 Archaeological Resources: Pertains to archaeological resources discovered within or near construction limits. Do not disturb the resources and immediately stop all work within a 60-foot radius of discovery, secure the area, and notify the engineer. Do not move archaeological resources or take them from the job site. Do not resume work within the radius of discovery until authorized. Archaeological mitigation may include monitoring.

14-6.03 Species Protection: Pertains to protecting regulated species and their habitat that occur within or near the job site. Upon discovery of a regulated species, immediately stop all work within a 100-foot radius of the discovery and notify the engineer.

14-6.03B Bird Protection: Pertains to protecting migratory and nongame birds, their occupied nests and their eggs. Upon discovery of an injured or dead bird or migratory or nongame bird nests that may be adversely affected by construction activities, immediately stop all work within a 100-foot radius of the discovery and notify the engineer. Exclusion devices, nesting-prevention measures, and removing constructed and unoccupied nests may be applied.

14-7.03 Discovery of Unanticipated Paleontological Resources: If paleontological resources are discovered at the job site, do not disturb the resources and immediately stop all work within a 60-foot radius of the discovery, secure the area, and notify the engineer. Do not move paleontological resources or take them from the job site.

14-8.02 Noise Control: Pertains to controlling and monitoring noise resulting from work activities. Noise levels are not to exceed 86 decibels at 50 feet from the job site from 9:00 p.m. to 6:00 a.m.

14-9.02 Air Pollution Control: Comply with air pollution control rules, regulations, ordinances, and statutes that apply to work performed under the construction contract.

14-11 Hazardous Waste and Contamination: Includes specifications relating to hazardous waste and contamination.

14-11.02 Discovery of Unanticipated Asbestos and Hazardous Substances: Upon discovery of unanticipated asbestos or a hazardous substance, immediately stop work and notify the engineer.

14-11.04 Dust Control: Excavation, transportation, and handling of material containing hazardous waste or contamination must result in no visible dust migration. When clearing, grubbing, and performing earthwork operations in areas containing hazardous waste or contamination, provide a water truck or tank on the job site.

14-11.12 Removal of Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue: Includes specifications for removing, handling, and disposing of yellow thermoplastic and yellow painted traffic stripe and pavement marking. The residue from the removal of this material is a generated hazardous waste (lead chromate). Removal of existing yellow thermoplastic and yellow painted traffic stripe and pavement marking exposes workers to health hazards that must be addressed in a lead compliance plan.

14-11.13C Safety and Health Protection Measures: Applies to worker protective measures for potential lead exposure.

14-11.14 Treated Wood Waste: Includes specifications for handling, storing, transporting, and disposing of treated wood waste.

1.6 Discussion of the NEPA Categorical Exclusion

This document contains information regarding compliance with the California Environmental Quality Act (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. 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—that is, species protected by the Federal Endangered Species Act).

1.7 Permits and Approvals Needed

The following permits, licenses, agreements, and certifications are required for project construction:

Agency	Permit/Approval	Status
California Department of Fish and Wildlife	1602 Streambed Alteration Agreement	To be obtained prior to construction
Regional Water Quality Control Board	401 Waste-Water Discharge Permit	To be obtained prior to construction

A 404 permit may be required if aquatic features are identified as jurisdictional by the U.S. Army Corps of Engineers.

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 Preliminary Environmental Study for Visual Impacts dated September 16, 2019, 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 Project Initiation Report dated May 2019, and project mapping received December 2020, the following 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

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

Considering the information in the Reef City CAPM Air Quality memo dated January 3, 2022, 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**

Question—Would the project:	CEQA Significance Determinations for Air Quality
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 Natural Environment Study dated March 2022, 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?	**Less Than Significant 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?	**Less Than Significant 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?	**Less Than Significant 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**

Question—Would the project:	CEQA Significance Determinations for Biological Resources
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**

Affected Environment

Animals

Animals that have the potential to occur in the project area are the giant kangaroo rat, San Joaquin kit fox, blunt-nosed leopard lizard, San Joaquin antelope squirrel, short-nosed kangaroo rat, San Joaquin coachwhip, Tulare grasshopper mouse, American badger, burrowing owl, and migratory birds.

Giant Kangaroo Rat

The giant kangaroo rat, the largest of over 20 species of kangaroo rats, measures about 5.9 inches in length, which includes its long, tufted tail. It is tan or brown and has a large head, large eyes, and long, strong hind legs that help it hop at high speeds.

The giant kangaroo rat lives on dry, sandy grasslands and digs burrows in loose soil. It lives in colonies, and individuals communicate with each other by drumming their feet on the ground. Giant kangaroo rats are primarily seed eaters, but also eat green plants and insects.

San Joaquin Kit Fox

The average male San Joaquin kit fox measures about 32 inches long, including its tail (approximately 12 inches long). It stands 12 inches high at the shoulder and weighs about 5 pounds. The female is a little smaller. San Joaquin kit foxes have long legs, a slim body, large ears set close together, and a narrow, pointed nose. The tail, carried low and straight, tapers slightly toward its distinct black tip. San Joaquin kit foxes range in color from tan in summer to grey in winter. They prefer alkali scrubs/shrubs and uncultivated agricultural and arid grassland habitats. Suitable grassland habitat exists in the project area. The San Joaquin kit fox eats small nocturnal rodents and uses dens to escape predators and rear puppies.

Blunt-Nosed Leopard Lizard

The blunt-nosed leopard lizard is a relatively large lizard of the Iguanidae family. It has a long, regenerative tail, long, powerful hind limbs, and a short, blunt snout. Males range in length from 3.4 to 4.7 inches, excluding tail, and weigh about 1.3 to 1.5 ounces. Females are about 3.4 to 4.4 inches long and weigh about 0.8 to 1.2 ounces.

Blunt-nosed leopard lizards vary in color and pattern on their backs. Their background color varies from yellowish or light grey-brown to dark brown, depending on the surrounding soil color and vegetation. Their undersides are mostly white. They have rows of dark spots, and alternating white, cream or yellow bands across their backs.

San Joaquin Antelope Squirrel

The San Joaquin antelope squirrel is found in the San Joaquin Valley, along slopes and ridge tops at the western edge of the valley. Heavy agricultural cultivation and habitat loss combined with rodenticide use have reduced the population, and the species is now listed as a threatened species.

San Joaquin antelope squirrels can be found in the Carrizo Plain, where their original habitat remains undisturbed. The squirrels live in small underground familial colonies in isolated locations on sandy, easily excavated grasslands in San Luis Obispo and Kern counties.

Short-Nosed Kangaroo Rat

Short-nosed kangaroo rats inhabit grasslands with scattered and desert-shrubs. They are generally more numerous in lighter, powdery soils such as the sandy bottoms and banks of arroyos and other sandy areas.

Agricultural development within its historic range is the main cause of decline for the short-nosed kangaroo rat, and the loss of the best habitats have resulted in population fluctuations. In limited areas, widespread use of rodenticides to control ground squirrels may have contributed to the local disappearance of some populations.

San Joaquin Coachwhip

The San Joaquin coachwhip is a species of nonvenomous colubrid snake, commonly called the coachwhip or the whip snake. Its scales are patterned so that the snake appears braided. Adults can be 50 to 72 inches long (including tail) and are found in open areas with sandy soil, open pine forests, old fields, and prairies. They thrive in sandhill scrub and coastal dunes.

Tulare Grasshopper Mouse

The Tulare grasshopper mouse has a stout body with a short, club-like tail. This mouse is sharply bicolored, with the head and upperparts pale brown to gray or pinkish-cinnamon and the underparts white. The tail is usually bicolored with a white tip. The young and adolescents are gray.

Tulare grasshopper mice inhabit arid shrubland communities in hot, arid grassland and shrubland associations. The Tulare grasshopper mouse is primarily a carnivore, with a particular appetite for small mammals and insects; it also eats other invertebrates and seeds.

Habitat reduction, fragmentation, and degradation are the principal causes for the decline of the Tulare grasshopper mouse. Insecticide use may have contributed to the local disappearance of this species by reducing its main food source and causing both direct and indirect poisoning.

American Badger

The American badger's typical habitat has open grasslands with available prey (such as mice, squirrels, and groundhogs). The species prefers areas such as prairie regions with sandy loam soils where it can dig more easily for its prey. American badgers prefer grasslands and open areas with grasslands, which can include parklands, farms, and treeless areas.

Burrowing Owl

The burrowing owl is a year-round resident of open dry grassland and desert habitats, and grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitats. This owl may also occur in agricultural areas. Burrowing owls may use a site for breeding, wintering, foraging, or simply for migration stopovers.

Suitable burrowing owl habitat may also include trees and shrubs if the canopy covers less than 30 percent of the ground surface. Burrows provide protection, shelter, and nests for the owls. Burrowing owls do not build their own burrows; they use burrows made by ground squirrels or badgers. They may also use human-made structures, such as culverts, cement, asphalt, wood debris piles, or openings beneath cement or asphalt pavement.

The burrowing owl nesting season begins as early as February 15 and continues through August 31, with peak activity between April 15 and July 15. Young emerge from the burrow at about 2 weeks and fly at about 4 weeks.

Burrowing owls hunt for food day and night, and they eat insects, small mammals, reptiles, birds, and carrion.

Migratory Birds

Nesting bird species are addressed here as a group because they have similar habitat requirements, project-related impacts, and avoidance and minimization measures. Although highly unlikely for any nesting species to be present, there is very small potential for them to nest within the project area—on utility poles, for instance. However, no raptor nests were found within the project area.

Plants

Plants that have a potential to occur in the project area are the California jewelflower, San Joaquin wooley-threads, Lost Hills crownscale, Lemmon's jewelflower, Kings gold, San Beninto poppy, and San Joaquin bluecurls.

California Jewelflower

The California jewelflower is a small annual herb with maroon and white flowers that typically bloom from mid-March to the beginning of May. The California jewelflower is found in a few locations in Fresno, Kern, Kings, San Luis Obispo, and Santa Barbara counties.

San Joaquin Wooley-Threads

The San Joaquin wooley-threads is an annual herb native to California and is known only from the southern San Joaquin Valley and one area in nearby Santa Barbara County.

Lost Hills Crownscale

The Lost Hills crownscale is an annual plant that flowers from May to August. Its short stems have few branches and alternate, egg-shaped leaves. The individual flowers are tiny and have no petals. Male and female flowers are mixed in small clusters. The fruiting bracts are triangular and irregularly toothed. Each pair of bracts surrounds a flattened, dark brown seed.

The Lost Hills crownscale typically grows in the dried beds of alkaline pools within scrub or annual grassland communities, though one population in southern Kern County occurs on exposed slopes rich in gypsum.

Lemmon's Jewelflower

The Lemmon's jewelflower, a dicot, is an annual herb that is native and endemic (limited) to California. This species occurs in pinyon and juniper woodland and valley and foothill grassland habitat. It blooms February through May. Its known elevation is from 262 to 5,184 feet.

Kings Gold

The Kings gold is an herb with yellow flowers and triangular fruit. It is known only from Kern and Kings counties in the southern part of the San Joaquin Valley.

San Beninto Poppy

The San Beninto poppy is an annual herb with fuzzy stems and leaves made up of rounded segments. Atop the thin, erect stems are bright yellow to orange poppy flowers.

San Joaquin Bluecurls

The San Joaquin bluecurls is an annual herb with pointed oval leaves. Clusters of flowers sit at each leaf pair. The plant blooms from May through October, with peak flowering in the hot summer.

Water Resources

Regulated Waters of the United States are defined as those waters that are currently used, or were used in the past, or may be susceptible to use in

interstate or foreign commerce, including waters that are subject to the ebb and flow of the tide and all interstate waters including interstate wetlands. This definition also includes interstate lakes, rivers, streams, (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds where the use, degradation or destruction of which could affect interstate or foreign commerce.

Waters of the State as regulated by the Regional Water Quality Control Board are defined more broadly as any surface water or groundwater, including saline waters, within the boundaries of the state. Therefore, Waters of the State include artificial (ditches and canals with natural runoff) and natural water bodies, and all federally jurisdictional and federally non-jurisdictional waters (including isolated waters and wetlands).

The California Department of Fish and Wildlife also regulates some Waters of the State, which include primarily rivers, streams, or lakes.

Potential jurisdictional waters occur in the project area. The following waters are considered channelized and jurisdictional by the California Department of Fish and Wildlife: Arroyo Estrecho Creek, Avenal Creek, and certain road drainages and swales at or near post miles 15.40, 14.87, 14.77, 12.36, 12.24, 6.26, 5.22, and 4.69.

Environmental Consequences *(sections a, b, c in table)*

Build Alternative

Animals

Giant Kangaroo Rat

The project lies within the known range of the giant kangaroo rat. Grassland vegetation and sparse areas of saltbush scrub exist in the project area. These areas are small and spread out around certain culvert locations. No sign typical of giant kangaroo rat presence was observed. No giant kangaroo rats were captured during the small mammal field trapping survey conducted for this project.

Non-native grassland habitat may be temporarily impacted by construction activities. Temporary impacts to grassland habitat are anticipated to be relatively minor (1.95 acres) and are not anticipated to result in a substantial loss of foraging or burrowing habitat.

The giant kangaroo rat is federally endangered, and the Federal Endangered Species Act effects determination is “may affect, not likely to adversely affect.”

San Joaquin Kit Fox

Several historical San Joaquin kit fox occurrences were recorded within a 5-mile radius of the project site. Wildlife cameras were placed onsite and did not

capture any images of a San Joaquin kit fox. No dens or other signs of the San Joaquin kit fox were found within the area. No kangaroo rats (a prey base for the San Joaquin kit fox) were seen during surveys.

Non-native grassland habitat may be temporarily impacted by construction activities. Temporary impacts to grassland habitat are anticipated to be relatively minor (1.95 acres) and are not anticipated to result in a substantial loss of foraging or burrowing habitat.

The San Joaquin kit fox is federally endangered, and the Federal Endangered Species Act effects determination is "may affect, not likely to adversely affect."

Blunt-Nosed Leopard Lizard

The project lies on the southern edge of the known range for this species. Small disturbed sparse areas of potentially suitable saltbush scrub habitat are found within the project area. No blunt-nosed leopard lizards were seen during protocol surveys for the species.

Small patches of salt bush scrub habitat may be temporarily impacted by the proposed construction activities, if the saltbush manages grow back before construction starts. Temporary impacts to salt bush scrub habitat are anticipated to be relatively minor and are not anticipated to result in a substantial loss of foraging habitat.

The blunt-nosed leopard lizard is federally endangered, and the Federal Endangered Species Act effects determination is "may affect, not likely to adversely affect."

San Joaquin Antelope Squirrel

The project lies within the known range of this species. An occurrence of the San Joaquin antelope squirrel was reported in 1993, about 8 miles northwest of the project site. There is suitable habitat within the project area, but no evidence of this species was found onsite. No San Joaquin antelope squirrels were captured during field trapping surveys.

Sparsely vegetated loam soil habitat may be temporarily impacted by the proposed construction activities. Temporary impacts to sparsely vegetated loam soil habitat are anticipated to be relatively minor and are not anticipated to result in a substantial loss of foraging or burrowing habitat.

Short-Nosed Kangaroo Rat

The project lies within the known range of this species. An occurrence of a short-nosed kangaroo rat was reported in 2001, about 1 mile east of the project site. There is suitable habitat within the project area, but no evidence of this species was found onsite. No short nosed-nosed kangaroo rats were captured during field trapping surveys.

Non-native grassland habitat may be temporarily impacted by the proposed construction activities for culvert work. Temporary impacts to grassland habitat are anticipated to be relatively minor and are not anticipated to result in a substantial loss of foraging or burrowing habitat.

San Joaquin Coachwhip

The project lies within the known range of this species. An occurrence of a San Joaquin coachwhip was reported in 2003, about 2 miles north of the project site. Suitable grassland habitat is found within the project area, but no evidence of this species was found onsite.

Open, dry habitat may be temporarily impacted by the proposed construction activities due to culvert work. Temporary impacts to open, dry habitat are anticipated to be relatively minor and are not anticipated to result in a substantial loss of foraging or burrowing habitat.

Tulare Grasshopper Mouse

The project lies within the known range of this species. An occurrence of a Tulare grasshopper mouse was reported in 1931, about 7 miles northwest of the project site. There is potentially suitable habitat within the project area, but no evidence of this species was found onsite.

Hot, arid valleys and scrub desert habitat may be temporarily impacted by the construction activities due to culvert work. Temporary impacts to hot, arid valleys and scrub desert habitat are anticipated to be relatively minor and are not anticipated to result in a substantial loss of foraging or burrowing habitat.

American Badger

The project lies within the known range of this species. An occurrence of an American badger was reported in 1939, about 7 miles northwest of the project area. There is potentially suitable habitat within the project footprint, but no evidence of this species was found onsite.

Open, dry habitat may be temporarily impacted by the proposed construction activities due to culvert work. Temporary impacts to open, dry habitat are anticipated to be relatively minor and are not anticipated to result in a substantial loss of foraging or burrowing habitat.

Burrowing Owl

The project lies within the known range of this species. An occurrence of a burrowing owl was reported in 1989, about 5 miles northwest of the project site. Potentially suitable habitat exists within the project area, but no evidence of the burrowing owl was found onsite.

Non-native grassland habitat may be temporarily impacted by the proposed construction activities for the culvert work. Temporary impacts to grassland

habitat are anticipated to be relatively minor and are not anticipated to result in a substantial loss of foraging or burrowing habitat.

Migratory Birds

Migratory nesting bird surveys were conducted for this project, but no raptor nests were found in the project vicinity. No active songbird nests were found in the project vicinity, other than for the American crow and cliff swallows. Active swallow nests were seen in the project vicinity under the bridge of Avenal Creek; however, no work is proposed below the bridge deck.

Plants

California Jewelflower

Threats to the California jewelflower include habitat conversion, agricultural land conversion, overgrazing, off-road vehicle use, urbanization, oil and gas exploration and development, potential solar power development, potential subsurface mineral extraction, loss of pollinators, and competition with non-native grasses.

The project area contains grassland habitat potentially suitable for this species, but the area is frequently disturbed from roadside maintenance, off-road vehicle activities, and routine grading of the nearby firebreaks. An occurrence was reported in 1935, about 1 mile south of the project site. Surveys were conducted during the optimal blooming period for this species, but no California jewelflower was found within the project area.

On-pavement activities will not impact sensitive plant species. Off-pavement activities may impact the growth and reproduction of sensitive plant species if these species are present within the project footprint and will be impacted prior to or during the blooming period.

Temporary impacts are relatively minimal due to the small area required to complete the work. Up to 1.95 acre of grassland habitat may be temporarily impacted by construction activities for culvert work. Impacts to this vegetation type are not anticipated to result in a measurable loss of habitat for special status species.

The California jewelflower is federally endangered, and the Federal Endangered Species Act effects determination is “may affect, not likely to adversely affect.”

San Joaquin Wooley-Threads

The project lies within the known range of this species. Suitable non-native grassland habitat is found within the project area. An occurrence was reported in 2017, approximately 1 mile east of the project site. No San Joaquin wooley-threads were found during focused botanical surveys conducted onsite.

On-pavement activities will not impact sensitive plant species. Off-pavement activities may impact the growth and reproduction of sensitive plant species if these species are present within the project footprint and will be impacted prior to or during the blooming period.

Temporary impacts are relatively minimal due to the small area required to complete the work. Up to 1.95 acres of grassland habitat may be temporarily impacted by construction activities for culvert work. Impacts to this vegetation type are not anticipated to result in a measurable loss of habitat for special-status species.

The San Joaquin wooley-threads is federally endangered, and the Federal Endangered Species Act effects determination is "may affect, not likely to adversely affect."

Lost Hills Crownscale

The project lies within the known range of this species. Suitable grassland habitat is found in the project area. An occurrence was reported in 2015, about 1.5 miles southeast of the project site. Focused botanical surveys were conducted, and no Lost Hills crownscales were found within the project area.

On-pavement activities will not impact sensitive plant species. Off-pavement activities may impact the growth and reproduction of sensitive plant species if these species are present within the project footprint and will be impacted prior to or during the blooming period.

Temporary impacts are relatively minimal due to the small area required to complete the work. Up to 1.95 acres of grassland habitat may be temporarily impacted by construction activities for culvert work. Impacts to this vegetation type are not anticipated to result in a measurable loss of habitat for special-status species.

Lemmon's Jewelflower

The project lies within the known range of this species. Suitable grassland habitat is found within the project area. An occurrence was reported in 1962, about 10 miles north of the project site. Focused botanical surveys were conducted for this project. No special-status species were found within the project area.

On-pavement activities will not impact sensitive plant species. Off-pavement activities may impact the growth and reproduction of sensitive plant species if these species are present within the project footprint and will be impacted prior to or during the blooming period.

Temporary impacts are relatively minimal due to the small area required to complete the work. Up to 1.95 acres of grassland habitat may be temporarily impacted by construction activities for culvert work. Impacts to this vegetation

type are not anticipated to result in a measurable loss of habitat for special-status species.

Kings Gold

The project lies within the known range of this species. Suitable grassland habitat is found within the project area. An occurrence was reported in 2017, about 1 mile east of the project site. Focused botanical surveys were conducted for this project. No special-status species were found within the project area.

On-pavement activities will not impact sensitive plant species. Off-pavement activities may impact the growth and reproduction of sensitive plant species if these species are present within the project footprint and will be impacted prior to or during the blooming period.

Temporary impacts are relatively minimal due to the small area required to complete the work. Up to 1.95 acres of grassland habitat may be temporarily impacted by construction activities for culvert work. Impacts to this vegetation type are not anticipated to result in a measurable loss of habitat for special-status species.

San Beninto Poppy

Suitable grassland slope habitat is present in the project footprint; however, no occurrence of this species was reported within 5 miles of the project site. This species was not found during surveys.

On-pavement activities will not impact sensitive plant species. Off-pavement activities may impact the growth and reproduction of sensitive plant species if these species are present within the project footprint and will be impacted prior to or during the blooming period.

Temporary impacts are relatively minimal due to the small area required to complete the work. Up to 1.95 acres of grassland habitat may be temporarily impacted by construction activities for culvert work. Impacts to this vegetation type are not anticipated to result in a measurable loss of habitat for special-status species.

San Joaquin Bluecurls

Suitable grassland slope habitat is present in the project footprint; however, no occurrence of this species was reported within 5 miles of the project site. This species was not found during surveys.

Off-pavement activities may impact the growth and reproduction of sensitive plant species if the species are present, and the activities are prior to or during the blooming period.

Temporary impacts are relatively minimal due to the small area required to complete the work. Up to 1.95 acres of grassland habitat may be temporarily impacted by construction activities for culvert work.

Water Resources

No tree removal would be required within potential jurisdictional aquatic features.

No wetlands were identified within the project right-of-way, but ephemeral dry wash channels and road drainages were found. Early coordination with the Regional Water Quality Control Board and the California Department of Fish and Wildlife was conducted to determine if jurisdictional waters would be affected by the project. Based on this early coordination, a 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife and a 401 Wastewater Discharge Permit from the Regional Water Quality Control Board will be required.

Caltrans staff contacted resource agencies regarding the project:

- November 5, 2018: The Caltrans Biologist obtained species lists from the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and California Native Plant Society.

- August 26, 2021: Caltrans Biologists Dane Dettloff, Dena Gonzalez, and Alyssa Kemp met with California Department of Fish and Wildlife liaison Steven Hulbert to identify which locations the California Department of Fish and Wildlife would claim jurisdiction over.

- December 15, 2021: The Caltrans Biologist obtained updated species lists from the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and California Native Plant Society.

- January 28, 2022: Caltrans Biologist Alyssa Kemp emailed U.S. Army Corps of Engineers liaison Marc Fugler inquiring about the 404 jurisdiction for this project.

No-Build Alternative

Impacts to the giant kangaroo rat, San Joaquin kit fox, blunt-nosed leopard lizard, San Joaquin antelope squirrel, short-nosed kangaroo rat, San Joaquin coachwhip, Tulare grasshopper mouse, American badger, burrowing owl, and migratory birds are not expected under the no-build alternative.

Impacts to the California jewelflower, San Joaquin wooley-threads, Lost Hills crownscale, Lemmon's jewelflower, Kings gold, San Beninto poppy, and San Joaquin bluecurls are not expected under the no-build alternative.

Impacts to wetlands and waters are not expected under the no-build alternative.

Avoidance, Minimization, and/or Mitigation Measures

Build Alternative

Animals: Giant Kangaroo Rat, San Joaquin Kit Fox, Blunt-Nosed Leopard Lizard, San Joaquin Antelope Squirrel, Short-Nosed Kangaroo Rat, San Joaquin Coachwhip, Tulare Grasshopper Mouse, American Badger, Burrowing Owl, and Migratory Birds

Caltrans and the contractor would follow Best Management Practices (2017) during construction. Pre-activity surveys are proposed for special-status species, and environmental awareness training is proposed for all employees that enter the job site.

- Prior to any ground disturbance, the contractor, all employees of the contractor, subcontractors, and subcontractors' employees will attend an employee education program conducted by a qualified biologist. The program will consist of a brief presentation on the biology, legislative protection, and measures to avoid impacts to protected species during project implementation.

- All staging areas will be approved by the project biologist and will be clearly designated with stakes or flagging. Proof of environmental compliance, including all state and federal laws and regulations, will be provided to the engineer if staging or storage areas will occur outside of the project area or on private property.

- A daytime 20-mile-per-hour speed limit will be observed in all project areas, except on county roads and state and federal highways. A nighttime 10-mile-per-hour speed limit will be observed in all project areas, except on county roads and state and federal highways.

- A litter control program will be implemented on this project, and trash will be removed daily from the project site. No pets or firearms (except for law enforcement officers and security personnel) will be allowed onsite.

- To minimize the adverse effects of lighting, the proposed action will confine lighting to areas within the construction footprint.

- A qualified biologist(s) will be available on-call during all construction periods in the event of sightings of listed species onsite or near the project footprint.

- Excavations deeper than 2 feet will be covered with plywood or similar material at the end of each workday, or escape ramps put in place to prevent any entrapment. Each excavation will be inspected thoroughly before being filled.

- If during surveys a listed species is found onsite, Caltrans will coordinate with the appropriate agency—U.S. Fish and Wildlife Service and/or the California Department of Fish and Wildlife—on appropriate avoidance measures.

- Pre-construction surveys for giant kangaroo rats will be conducted following the 2013 U.S. Fish and Wildlife Service's survey protocol for Determining Presence of San Joaquin Kangaroo Rats prior to any ground disturbance.

- Preconstruction/pre-activity surveys will be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities or any project activity likely to impact the San Joaquin kit fox.

- Food trash and other garbage that may attract wildlife to the work area would be disposed of in closed containers and removed at the end of each workday. Feeding of any wildlife would be prohibited.

- All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for kit foxes before the pipe is used or moved in any way.

- Use of rodenticides and herbicides in project areas should be restricted.

- Firearms (except by qualified and permitted public safety agents) and pets would not be permitted on the work site.

- Surveys will be conducted within the proposed project boundary and a 200-foot buffer where Caltrans has legal authority to do so outside the boundary to identify habitat features.

- If natal/pupping dens are discovered within the project area or within 200 feet of the project impact area, the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife will be immediately notified.

- If San Joaquin kit fox dens are found onsite, appropriate buffers will be implemented, which may include: a 250-foot no-disturbance buffer around natal dens, a 150-foot no-disturbance buffer around known dens, and a 50-foot no-disturbance buffer around potential or atypical dens.

- Vehicles and other equipment that might provide shade or shelter for special-status species will be inspected prior to use.

- Prior to any ground disturbance, pre-activity surveys will be conducted for burrowing owls by a qualified biologist. Preconstruction surveys will be conducted within 30 days prior to the beginning of ground disturbance.

The surveys will identify any potential burrowing owl burrows or other evidence of burrowing owl occupancy. Implementation of avoidance and minimization measures will be triggered by positive owl burrow presence on the site where project activities will occur. The development of avoidance and minimization approaches will be informed by monitoring the burrowing owls by a qualified biologist. The biologist will determine the appropriate level of effort for monitoring and if exclusion zones will need to be implemented.

- Construction equipment will be certified as "weed-free" by Caltrans before entering the construction site. If necessary, wash stations onsite will be established for construction equipment under the guidance of Caltrans to avoid/minimize the spread of invasive plants and/or seed within the construction area.

- Vehicles and equipment will not be cleaned at locations near/within waterways at the job site and must be cleaned before entering such locations using the guidance provided by Caltrans.

- Prior to any ground disturbance, pre-activity surveys will be conducted for migratory birds and raptors by a qualified biologist. Pre-construction surveys will be conducted within 30 days prior to the beginning of ground disturbance. Implementation of avoidance and minimization measures will be triggered by active migratory bird nests on the site where project activities will occur. The development of avoidance and minimization approaches will be informed by monitoring the active nests. A qualified biologist will determine the appropriate level of effort for monitoring and if exclusion zones will need to be implemented. A 500-foot work exclusion zone is proposed for all migratory raptor species, and a 100-foot work exclusion zone is proposed for all other migratory bird species that do not have additional state or federal listing status. These buffers may be reduced if there is a biological or ecological reason to do so; however, a qualified biological monitor would need to be present if any construction activities were to be performed within these exclusion zones.

Plants: California Jewelflower, San Joaquin Wooley-Threads, Lost Hills Crownscale, Lemmon's Jewelflower, Kings Gold, San Beninto Poppy, and San Joaquin Bluecurls

Pre-season surveys are proposed for special-status species, and environmental awareness training is proposed for all employees that enter the job site. Caltrans and the contractor will follow Best Management Practices during construction.

Botanical surveys will be conducted by a qualified biologist during the blooming season before construction is scheduled to begin. Botanical survey methods will be devised with consideration of the following resources:

- Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (USFWS 1996).
- Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities (CDFW 2018)
- California Native Plant Society Botanical Survey Guidelines (CNPS 2001)

Water Resources

A 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife and a 401 Waste-Water Discharge Permit from the Regional Water Quality Control Board will be required for work at culverts.

A 404 permit may be required if aquatic features are identified as jurisdictional by the U.S. Army Corps of Engineers.

Only temporary impacts are anticipated; habitat will be restored onsite to pre-project conditions. In-lieu fees may be needed for minor impacts to Waters of the State under the Regional Water Quality Control Board.

Compensatory mitigation is not anticipated for the build alternative. If it is later determined that compensatory mitigation will be required for impacts to the species or potential foraging and nesting habitat, the appropriate agencies will be consulted to determine appropriate compensatory mitigation options.

No-Build Alternative

Avoidance, minimization and mitigation measures are not required under the no-build alternative.

2.1.5 Cultural Resources

Considering the information in the Historic Property Survey Report dated February 2022, 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 Energy section of the Caltrans Standard Environmental Reference dated January 2020, 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 California Department of Conservation Earthquake Zone Map, accessed February 2022, California Department of Conservation Landslide Map, accessed February 2022, Alquist-Priolo Earthquake Fault Zoning Map, accessed February 2022, and Reef City Paleontological Memorandum dated February 24, 2022, 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**

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
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 onsite or offsite 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 Climate Change and Greenhouse Gas Emissions Memo dated May 2022, 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?	**Less Than Significant Impact**
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	**No Impact**

Affected Environment

The Reef City CAPM project is south of Kettleman City on State Route 41 in Kings County. The project area lies between the southern coastal mountain range and the Sierra Nevada Mountain range, where the topography flattens out into a valley. State Route 41 within the project limits is classified as a rural

two-lane undivided conventional highway. The surrounding land adjacent to the roadway is used mostly for cattle grazing.

The purpose of the project is to preserve and rehabilitate the existing pavement, extend the life of the roadway, and minimize future maintenance costs.

Environmental Consequences

Build Alternative

Greenhouse gas emissions impacts of non-capacity increasing projects like the Reef City CAPM project are considered less than significant under CEQA because there would be no increase in operational emissions.

However, construction equipment and material processing and delivery may generate short-term greenhouse gas emissions during construction. Carbon dioxide emissions generated from construction equipment were estimated using the Caltrans Construction Emissions Tool. The estimated emissions would be 496 tons of carbon dioxide during the 210 working days of the project.

While some construction greenhouse gas emissions would be unavoidable, implementing standard conditions or Best Management Practices designed to reduce or eliminate emissions as part of the project would reduce impacts to less than significant.

No-Build Alternative

No impacts on greenhouse gas emissions are associated with the no-build alternative.

Avoidance, Minimization, and/or Mitigation Measures

Build Alternative

Measures to reduce project-level greenhouse gas emissions include the following:

- Caltrans Standard Specifications Section 14-9.02, Air Pollution Control, requires the contractor to comply with all air-pollution control rules, regulations, ordinances, and statutes.
- The project would provide bicycle-friendly grates in the areas of bike paths.
- All areas disturbed during construction would be treated with an erosion control seed mix that consists of native or climate-appropriate species for the area.

No-Build Alternative

Avoidance, minimization, and mitigation measures are not required for the no-build alternative.

2.1.9 Hazards and Hazardous Materials

Considering the information in the Hazardous Waste Project Approval and Environmental Document Studies, dated August 10, 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?	**No 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**
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	**No Impact**

2.1.10 Hydrology and Water Quality

Considering the information in the Water Compliance Memorandum dated November 15, 2021, and Location Hydraulic Study dated October 8, 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**
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 onsite or offsite;	**Less Than Significant Impact**
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite 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**

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
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**

Affected Environment

All drainage within Kings County ends in the Tulare Lake Basin. This basin is the end point for various drainage channels such as the Kings River, Cross Creek, and the Tule River. Over time, canals and ditches altered the drainage from the Sierra Nevada Mountains, and water was diverted for farming purposes. Many of these old waterways remain and, in the event of extreme rainfall, will discharge the water into the same basin as an emergency overflow.

The water conveyance systems within the project limits include Avenal Creek (post mile 3.75), Arroyo Escaso (post mile 11.82), Arroyo del Paso (post mile 13.88), Arroyo Estrecho (post mile 14.96), and Arroyo Pino (post mile 15.91).

Environmental Consequences

Build Alternative

Rehabilitating or replacing culverts and upgrading drainage systems are not expected to cause long-term water quality impacts on surface waters. Short-term construction-related potential impacts to nearby surface water and groundwater could occur due to accidental spills, poor management in handling hazardous materials, fuels, and other potential chemicals used during construction operations. Earth-moving activities, when not controlled, may generate soil erosion via storm runoff or mechanical equipment. Up to 1.95 acres may be temporarily impacted by construction activities for culvert work.

No-Build Alternative

No short-term or long-term impacts on water quality are associated with the no-build alternative.

Avoidance, Minimization, and/or Mitigation Measures

Build Alternative

Two general strategies are recommended to prevent construction silt from entering local storm drains:

- Erosion control procedures should be implemented for those areas that must be exposed.

- The area should be secured to control the offsite movement of pollutants.

These Best Management Practices would be incorporated in the Stormwater Pollution Prevention Plan.

If the project disturbs 1 or more acres of soil, the following will be required:

- A Notification of Intent is to be submitted to the appropriate Regional Water Quality Control Board at least 30 days prior to the start of construction.

- A Stormwater Pollution Prevention Plan is to be prepared and implemented during construction to the satisfaction of the resident engineer.

A Notice of Termination is to be submitted to the Regional Water Quality Control Board upon completion of construction and site stabilization. A project will be considered complete when the criteria for final stabilization in the Construction General Permit are met.

By incorporating proper and accepted engineering practices and Best Management Practices, the project will minimize erosion or siltation onsite or offsite during construction and its operation.

No-Build Alternative

Avoidance, minimization, and/or mitigation measures are not required for the no-build alternative.

2.1.11 Land Use and Planning

Considering the information in the Project Initiation Report dated May 2019, and project mapping received December 2020, 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**
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 Kings County General Plan 2035, Resource Conservation Element, accessed on March 22, 2022, 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 January 11, 2022, the following significance determinations have been made:

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**
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 Project Initiation Report dated May 2019, and project mapping received December 2020, 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 Project Initiation Report dated May 2019, and project mapping received December 2020, 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 the Project Initiation Report dated May 2019, and project mapping received December 2020, 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 Initiation Report dated May 2019, and project mapping received December 2020, 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 Historic Property Survey Report dated February 2022, 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**
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.	**No Impact**

2.1.19 Utilities and Service Systems

Considering the information in the Project Initiation Report, Right of Way Data Sheet dated May 2019, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
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?	**No impact**
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	**No Impact**

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

2.1.20 Wildfire

Considering the information in the Fire Hazard Severity Zone Maps accessed February 2022, 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**

Question—Would the project:	CEQA Significance Determinations for Wildfire
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
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?	**No Impact**
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.)	**No Impact**
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	**No Impact**

Appendix A Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY Gavin Newsom, Governor

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-6130
FAX (916) 653-5776
TTY 711
www.dot.ca.gov

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.

Toks Omishakin
Director

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

Appendix B Preliminary Mapping


NOTE:
AREA OF POTENTIAL ENVIRONMENTAL IMPACT
ROUTE 41
PM 5.04
REGRADE SOFT OF DITCH AT OUTLET
AREA OF POTENTIAL EFFECTS
SCALE 1"=10'
APE-02
DESIGN
UNIT 1475
PROJECT NUMBER & PHASE


NOTE:
AREA OF POTENTIAL ENVIRONMENTAL IMPACT
ROUTE 41
PM 5.22
AREA OF POTENTIAL EFFECTS
APE-03


ROUTE 41
PM 6.23
AREA OF POTENTIAL EFFECTS
SCALE 1"=10'
APE-04
UNIT 1475
PROJECT NUMBER & PHASE


ROUTE 41
PM 7.97
AREA OF POTENTIAL EFFECTS
APE-05
DESIGN


NOTE:
AREA OF POTENTIAL ENVIRONMENTAL IMPACT
ROUTE 41
PM 12.24
AREA OF POTENTIAL EFFECTS
SCALE 1"=10'
APE-06

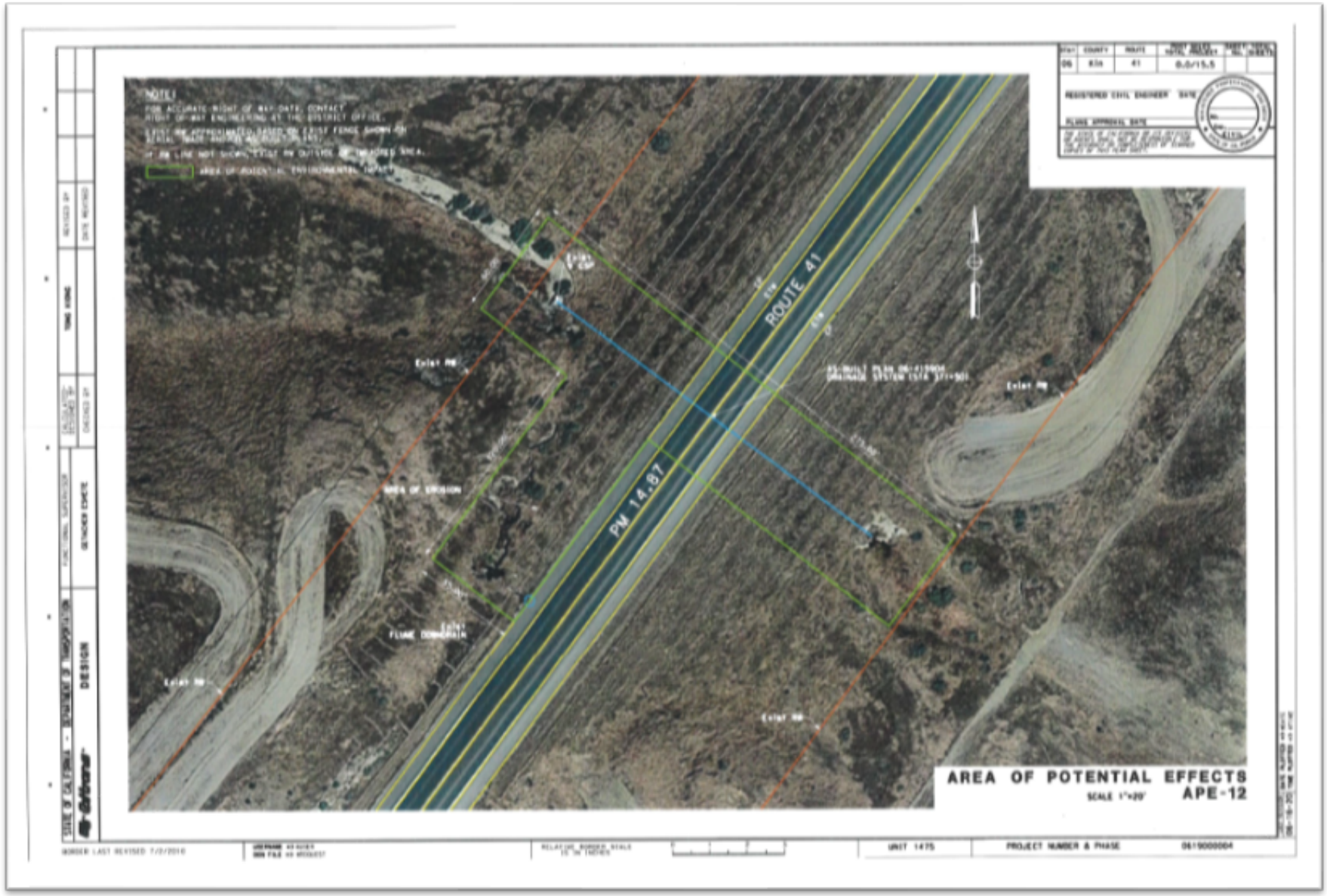

ROUTE 41
PM 12.36
AREA OF POTENTIAL EFFECTS
SCALE 1"=10'
APE-7


ROUTE 41
PM 12.59
AREA OF POTENTIAL EFFECTS
APE-8

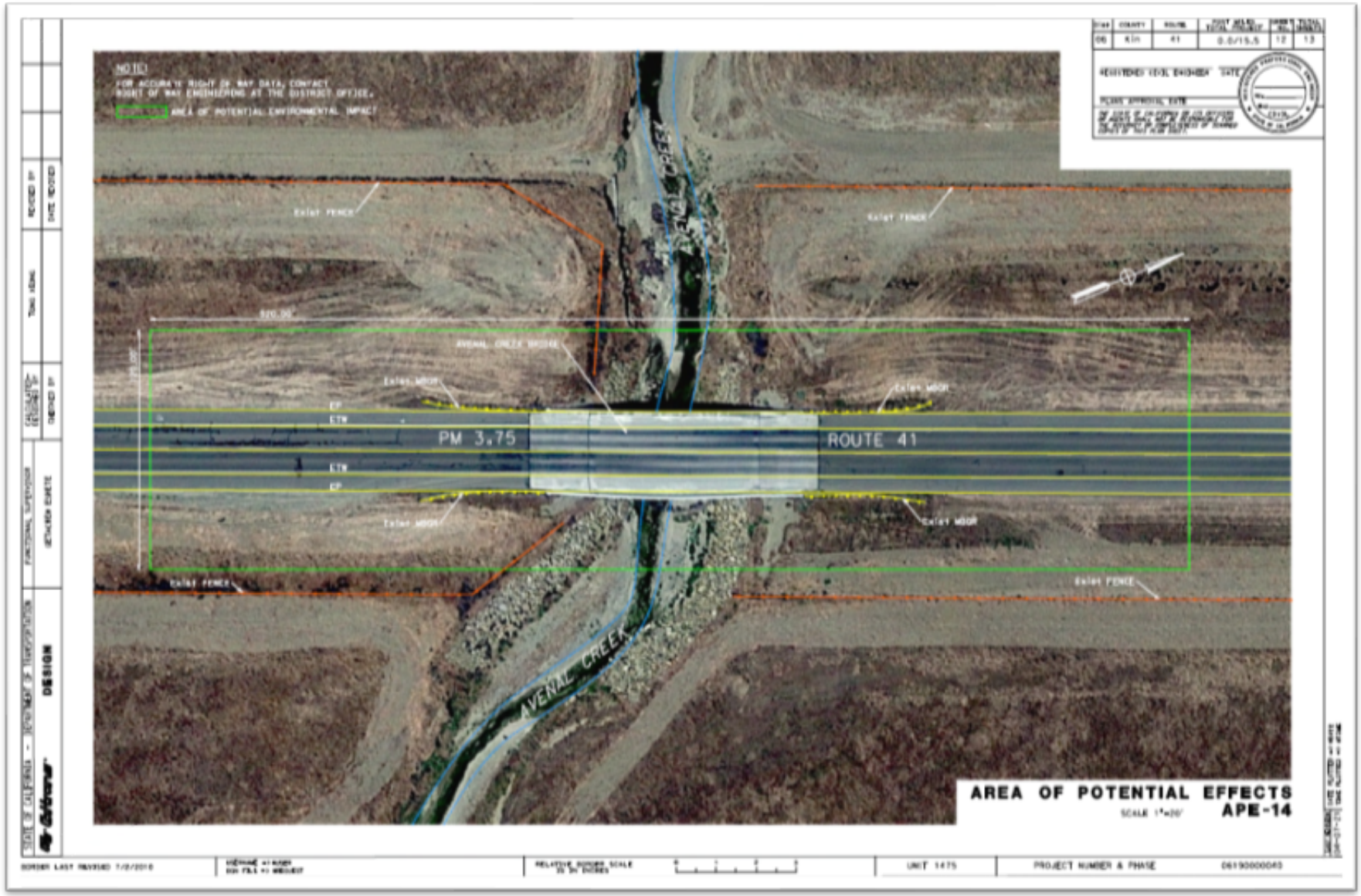

ROUTE 41
PM 12.67
AREA OF POTENTIAL EFFECTS
SCALE 1"=10'
APE-9


ROUTE 41
PM 14.42
AREA OF POTENTIAL EFFECTS
APE-10


ROUTE 41
PM 14.77
AREA OF POTENTIAL EFFECTS
APE-11


ROUTE 41
PM 14.87
AREA OF POTENTIAL EFFECTS
APE-12
SCALE 1"=20'
DESIGN
UNIT 1475
PROJECT NUMBER & PHASE


ROUTE 41
PM 15.40
AREA OF POTENTIAL EFFECTS
SCALE 1"=10'
APE-13


NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
AREA OF POTENTIAL ENVIRONMENTAL IMPACT
Exist FENCE
520.00'
AVENAL CREEK BRIDGE
Exist MBGR
EP
ETR
PM 3.75
ROUTE 41
ETR
EP
AVENAL CREEK
AREA OF POTENTIAL EFFECTS
APE-14
DESIGN
UNIT 1475
PROJECT NUMBER & PHASE


NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
AREA OF POTENTIAL ENVIRONMENTAL IMPACT
PM 11.36
ROUTE 41
AREA OF POTENTIAL EFFECTS
APE-15
DESIGN
UNIT 1475
PROJECT NUMBER & PHASE
0619000040

List of Technical Studies Bound Separately (Volume 2)

Air Quality Report

Noise Study Report

Water Quality Report

Natural Environment Study

Location Hydraulic Study

Historical Property Survey Report

- Historic Resource Evaluation Report
- Historic Architectural Survey Report
- Archaeological Survey Report

Hazardous Waste Reports

- Initial Site Assessment

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:

G. William "Trais" Norris III
District 6 Environmental Division
California Department of Transportation
2015 East Shields Avenue, Suite 100, Fresno, CA 93726

Or send your request via email to: trais.norris@dot.ca.gov

Or call: 209-601-1321

Please provide the following information in your request:

Project title: Reef City CAPM

General location information: On State Route 41 near Reef City in Kings County from the Kern County line to 0.8 mile west of the Interstate 5/State Route 41 Separation

District number-county code-route-post mile: 06-KIN-41-0.0/15.5

Project ID number: 0619000004