DRAFT INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

GOLDEN STATE CORRIDOR - ECONOMIC DEVELOPMENT INFRASTRUCTURE IMPROVEMENTS PROJECT

December 2011

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Draft Initial Study/Mitigated Negative Declaration
Golden State Corridor - Economic Development Infrastructure Improvements Project

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INTRODUCTION

SECTION ONE – INTRODUCTION

1.1 CEQA Requirements

This document is the Initial Study/Mitigated Negative Declaration on the potential environmental effects of the Golden State Corridor - Economic Development Infrastructure Improvements Project (Corridor or Project). The Project is a roadway improvement project that encompasses Planning Design Guidelines, 30 percent Engineering Design plans, and environmental studies for a 14.2 mile section of the Golden State Corridor generally extending from Fowler to Kingsburg. The Fresno Council of Governments (Fresno COG) will act as the Lead Agency for this project pursuant to the *California Environmental Quality Act (CEQA)* and the *CEQA Guidelines.*

Section 15063 of the CEQA Guidelines requires the Lead Agency to prepare an Initial Study to determine whether a discretionary project will have a significant effect on the environment. The purposes of an Initial Study, as listed under Section 15063[c] of the CEQA Guidelines, include:

(1) Provide the Lead Agency with information to use as the basis for deciding whether to prepare an EIR [Environmental Impact Report] or a Negative Declaration.

(2) Enable an applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a Negative Declaration.

(3) Assist in the preparation of an EIR, if one is required, by:

- *(A) Focusing the EIR on the effects determined to be significant,*
- *(B) Identifying the effects determined not to be significant,*
- *(C) Explaining the reasons for determining that potentially significant effects would not be significant, and*
- *(D) Identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project's environmental effects.*

(4) Facilitate environmental assessment early in the design of a project;

(5) Provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment;

(6) Eliminate unnecessary EIRs;

(7) Determine whether a previously prepared EIR could be used with the project.

Regardless of the type of CEQA document that must be prepared, the basic purpose of the CEQA process as set forth in the CEQA Guidelines Section 15002(a) is to:

(1) Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities.

(2) Identify ways that environmental damage can be avoided or significantly reduced.

(3) Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.

(4) Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

According to Section 15070(b), a Mitigated Negative Declaration is appropriate if it is determined that:

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

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

The Initial Study contained in Section Three of this document has determined that with mitigation measures and features incorporated into the project design and operation, the environmental impacts are less than significant.

1.2 Intended Uses of the Mitigated Negative Declaration

This Mitigated Negative Declaration is an informational document that is intended to inform decision-makers, other responsible or interested agencies, and the general public of potential environmental effects of the proposed project. The environmental review process has been established to enable public agencies to evaluate environmental consequences and to examine and implement methods of eliminating or reducing any adverse impacts. While CEQA requires that consideration be given to avoiding environmental damage, the Fresno COG must balance any potential environmental effects against other public objectives, including economic and social goals.

The Fresno COG, as the Lead Agency, has determined, based on the Initial Study, that the environmental review for the proposed application can be completed with a Mitigated Negative Declaration. This report, together with a Notice of Intent to Adopt a Negative Declaration, will be circulated and published for a period of 45 days for public and agency review. Responsible agencies that may have discretionary approval authority over the project and trustee agencies having jurisdiction over natural resources affected by the project will have the opportunity to review and provide comments during the review period. Other agencies and the public may also contribute comments.

The written and oral comments received during the public review period will be considered by the Fresno COG prior to adopting the Mitigated Negative Declaration.

1.3 Document Organization and Contents

The Mitigated Negative Declaration is organized as follows:

Section I. Introduction presents an introduction to the entire report. This section identifies contact persons involved in the process, scope of environmental review and environmental procedures.

Section II. Project Description describes the proposed project and project design features.

Section III. Environmental Evaluation contains the environmental checklist and Initial Study form. The checklist form presents results of the environmental evaluation for the proposed project and those issue areas that would either have a potentially significant impact, a less than significant impact, or no impact.

Section IV. Mitigation Monitoring Plan

Section V. Persons and Documents Consulted

Section VI. List of Preparers

SECTION TWO

PROJECT DESCRIPTION

SECTION TWO – PROJECT DESCRIPTION

2.1 Project Background

The Fresno Council of Governments (Fresno COG), the County of Fresno and the cities of Fowler, Selma, and Kingsburg have been working collaboratively for a number of years to maximize the economic development potential of the Golden State Corridor (Corridor). This Corridor contains the "Old US Highway 99", a historic four-lane roadway that at one time ran north-south through California, Oregon, and Washington, and currently connects the three cities with each other and with the city of Fresno. The four jurisdictions, along with Fresno COG, have developed a common vision and goals for the Corridor that encompass the desires of the adjacent communities in the areas of land use, preserving the agricultural industry, protecting the environment, promoting tourism and recreation, encouraging and supporting economic development, and fostering new partnerships focused on economic success. The vision and goals were presented in the *Community Vision for the Golden State Corridor* prepared by Chabin Concepts in 2003.

The Golden State Corridor Economic Development Infrastructure Improvement Project has advanced from an initial Community Vision document to its current phase, which includes Planning Design Guidelines, 30 percent Engineering Design Plans, and environmental studies for a 14.2 mile section of Historic U.S. Highway 99 extending from American Avenue north of Fowler to Mission Street in Kingsburg.

2.2 Project Objectives

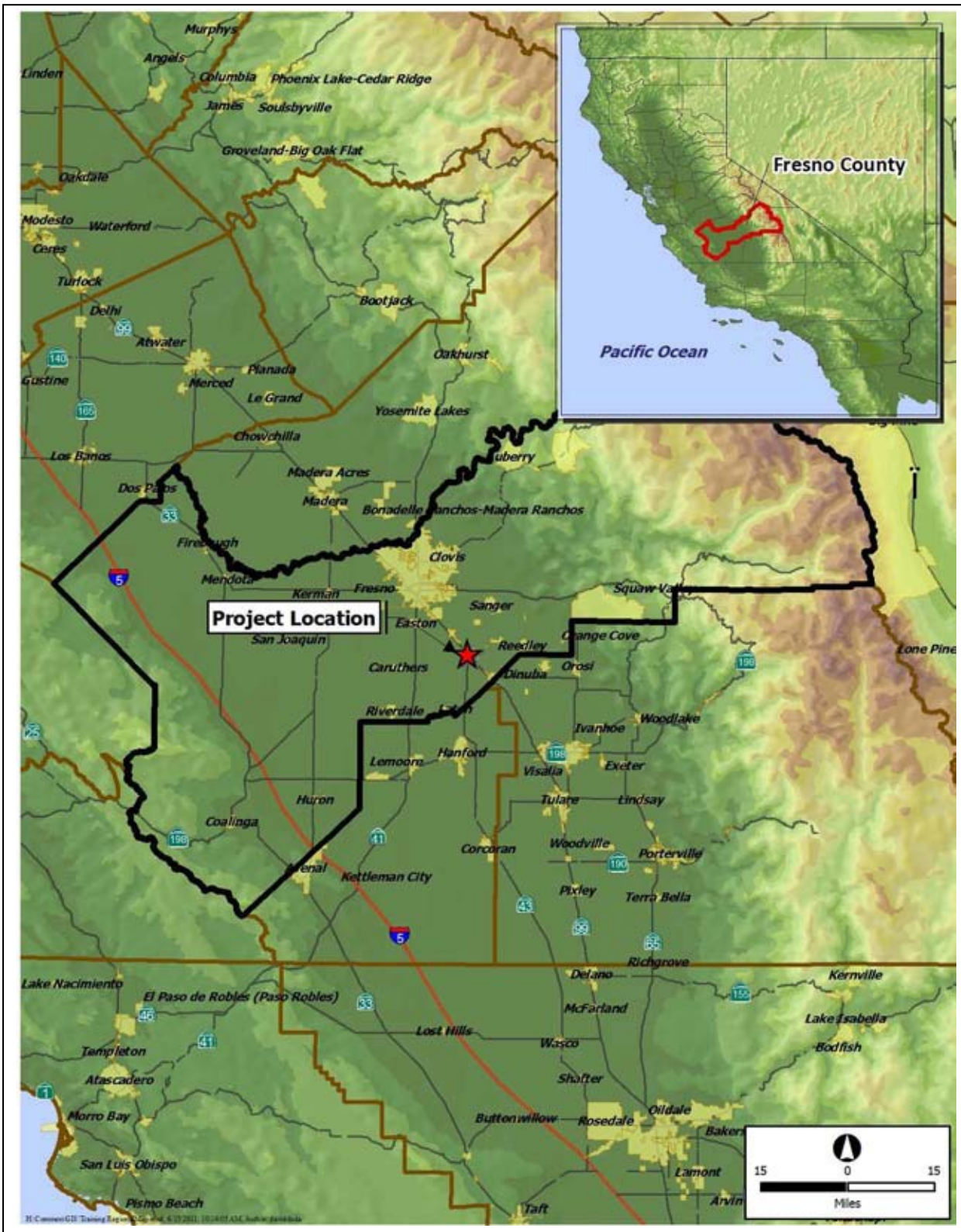
The project is intended to achieve the following primary objectives:

- Unify the Corridor through design;
- Develop conceptual designs for Gateways;
- Utilize concepts in the Community Vision Document;
- Coordinate with the existing State Route 99 Highway Beautification Overlay District;
- Provide Landscape/Urban Design Guidelines;
- Preserve and enhance the character of the cities of Kingsburg, Selma, and Fowler;
- Provide safe and convenient transportation access and circulation for motorized and non-motorized vehicles, and for pedestrians;
- Provide a base map for future design efforts; and
- Provide 30 percent engineering design plans for the Corridor roadway that can be used to continue to 100 percent construction plans in the future and to apply for grant funding; and
- Provide cost-estimates for future improvements.

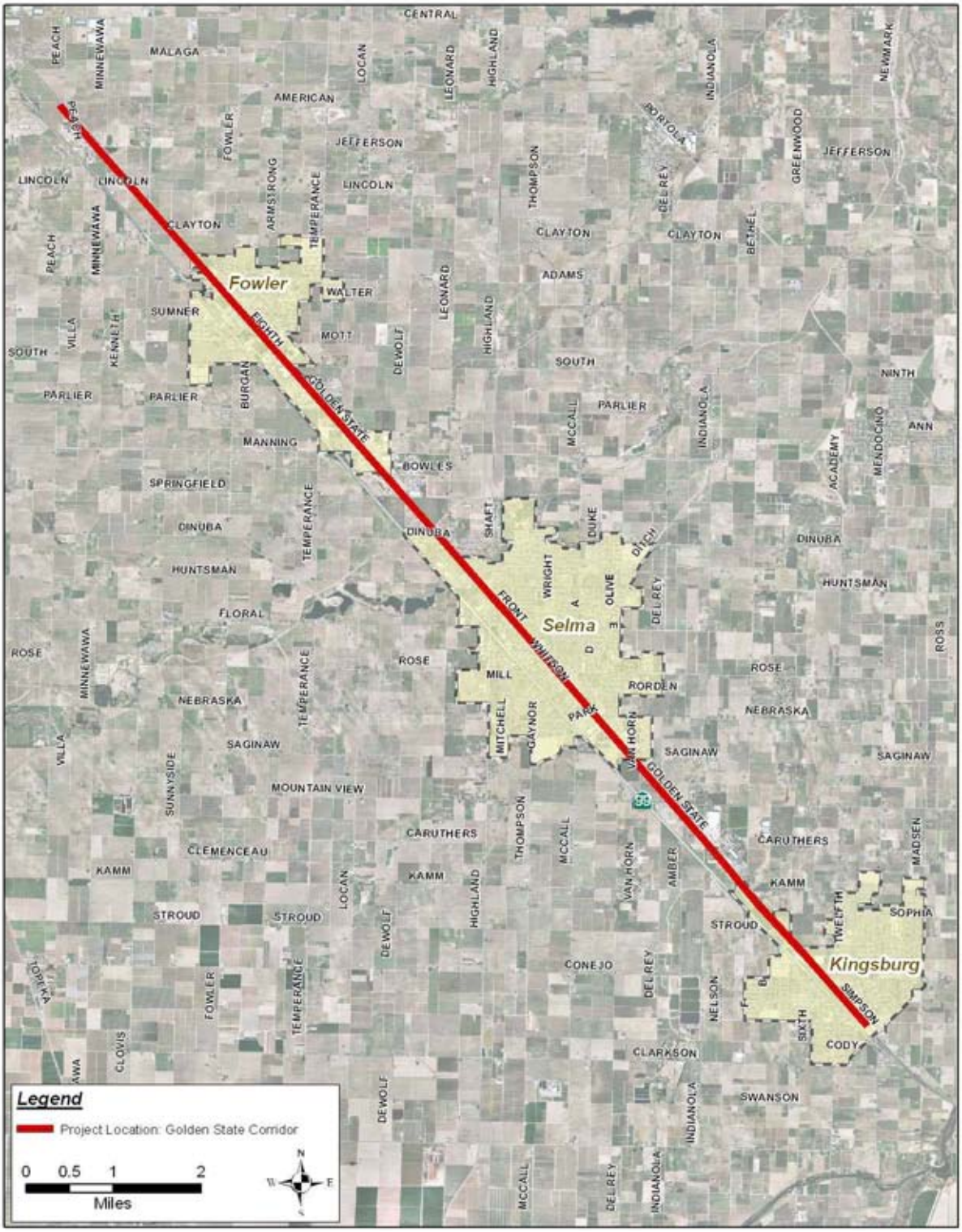
2.3 Project Location and Setting

2.3.1 LOCATION

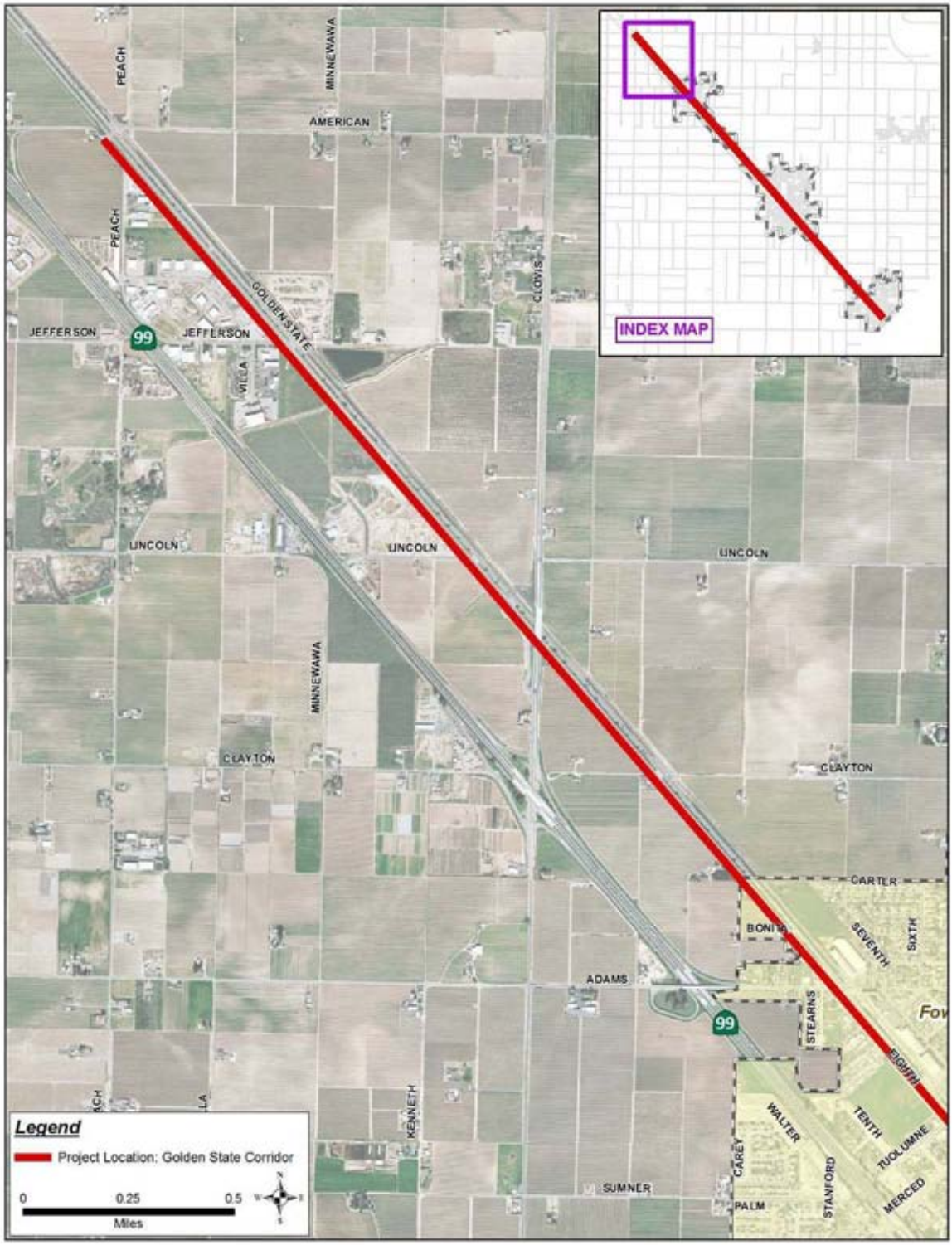
The project is located in the County of Fresno (Figure 2-1) along a 14.2 mile stretch of roadway along Golden State Boulevard from American Avenue in Fowler to the terminus point of Golden State Boulevard at Mission Street in Kingsburg (Figure 2-2). The project passes through the cities of Fowler, Selma, and Kingsburg and unincorporated areas of the County of Fresno, California (Figures 2-3a, Figure 2-3b, Figure 2-3c, Figure 2-3d, and Figure 2-3e).



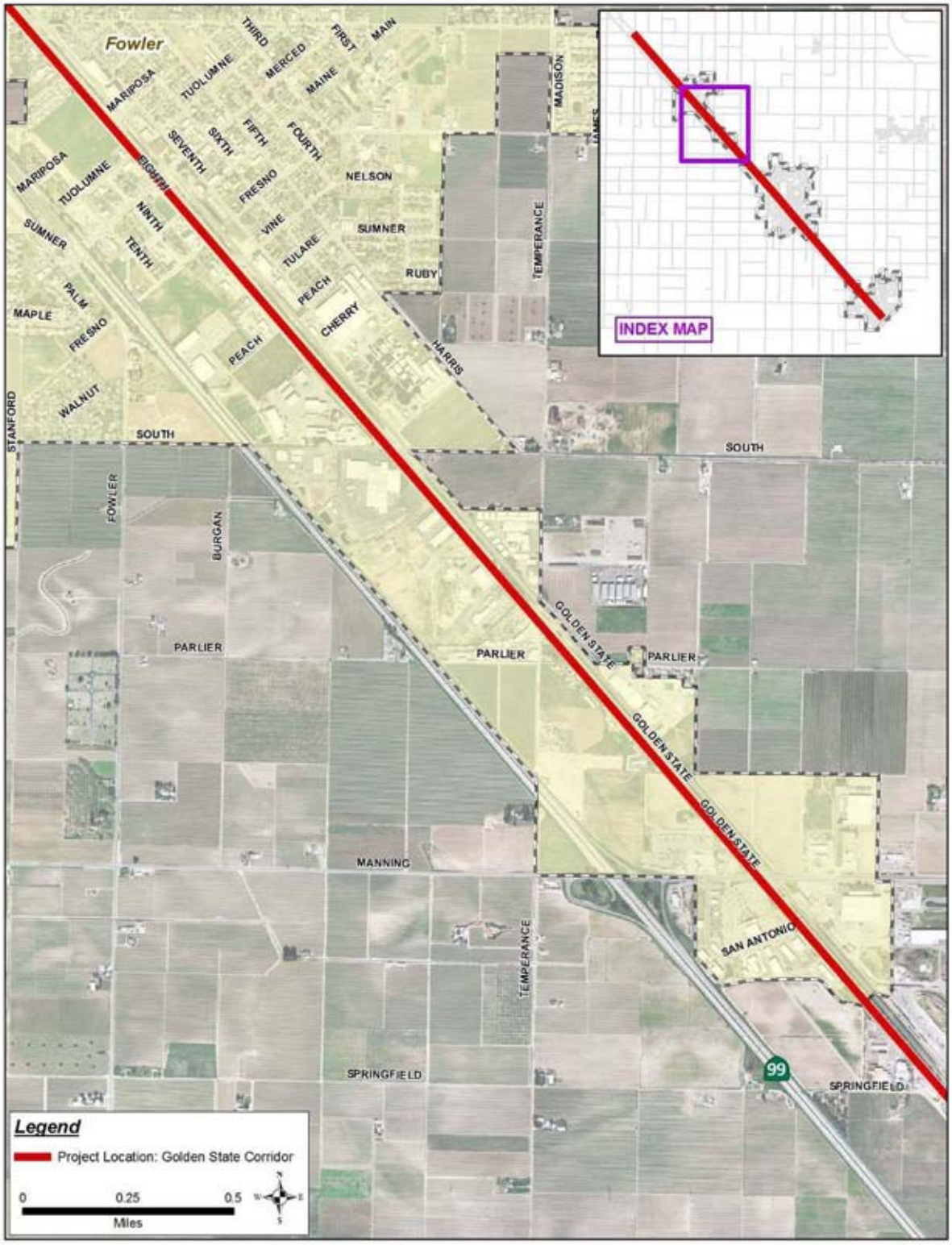
Quad Knopf	REGIONAL LOCATION	Figure 2 - 1



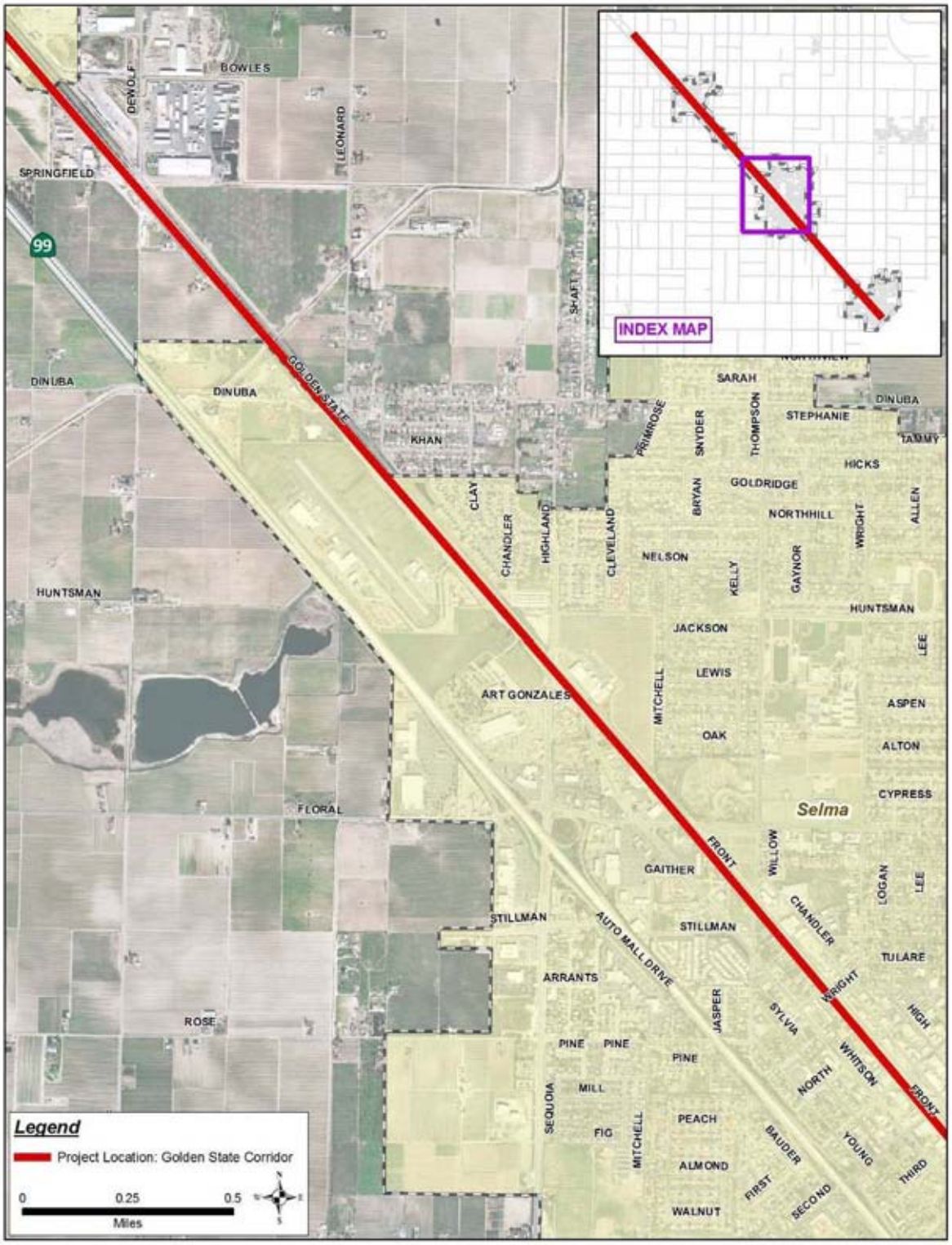
Quad Knopf	PROJECT VICINITY	Figure 2 - 2



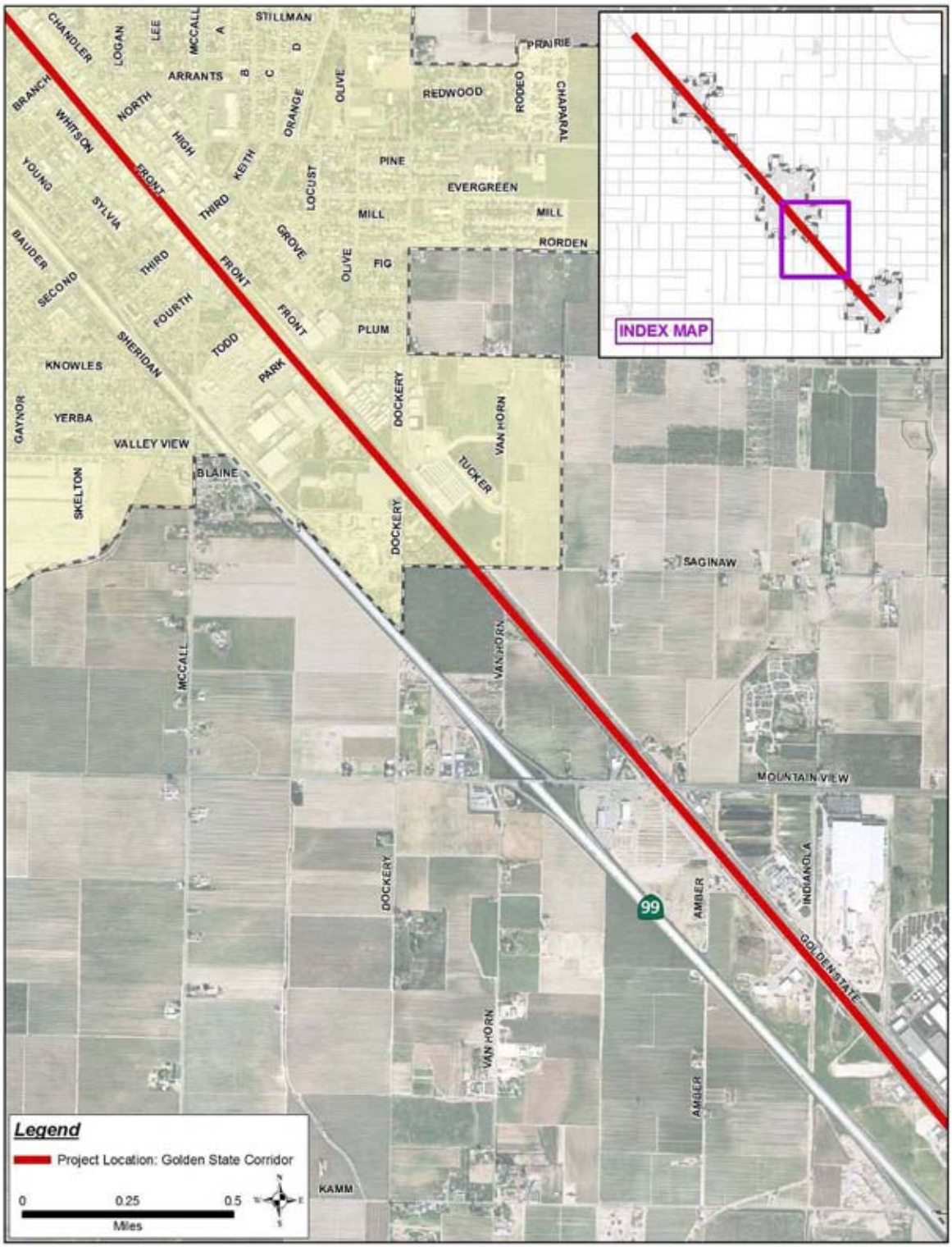
Quad Knopf	PROJECT SITE	Figure 2 – 3a



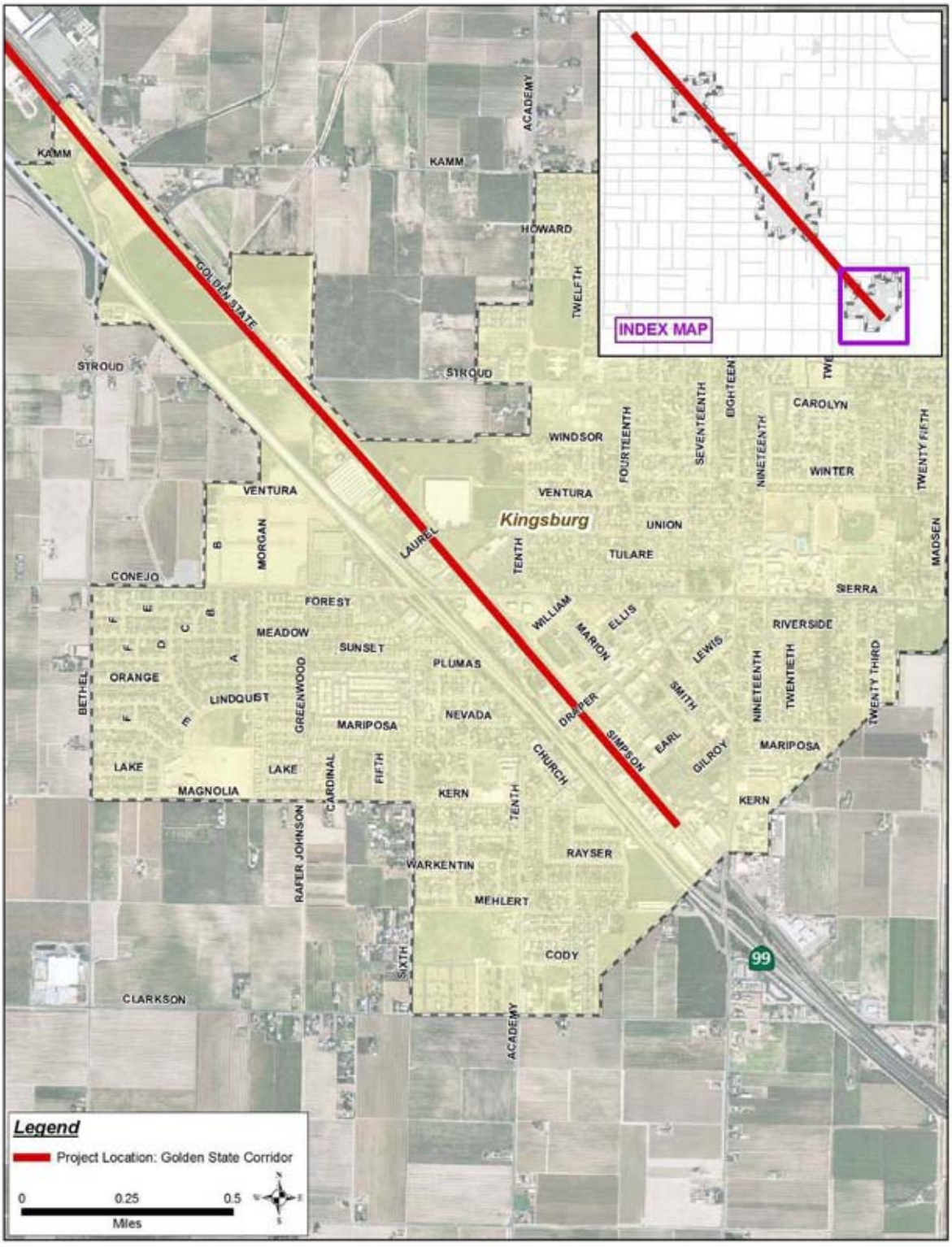
Quad Knopf	PROJECT SITE	Figure 2 – 3b



Quad Knopf	PROJECT SITE	Figure 2 – 3c



Quad Knopf	PROJECT SITE	Figure 2 – 3d



Quad Knopf	PROJECT SITE	Figure 2 – 3e

The proposed project lies within the central portion of the San Joaquin Valley. The surrounding topography includes foothills and mountains to the east, west and south. The proposed project is located on the Valley floor at an elevation of approximately 300 feet above mean sea level (MSL).

Surrounding land uses and setting

The existing land uses surrounding the Golden State Corridor include a mix of new and dilapidated industrial properties, limited commercial development, disjointed intersections that are poorly or haphazardly developed and signed, and poorly managed landscaping, buffering, and screening. The Union Pacific (UP) Railroad mainline runs parallel to the project along Golden State Boulevard with the exception of the downtown area in the City of Selma. The typical speed of trains is 50 to 65 miles per hour with approximately 19 to 29 daily train movements within the project area. The Golden State Corridor is an area specifically planned for industrial and commercial development within the contiguous spheres of influence of the Cities of Fowler, Selma, and Kingsburg. The project does not propose any land use or zoning changes to the areas surrounding the project site.

2.4 Project Description

2.4.1 PROJECT CHARACTERISTICS

The project is a roadway improvement project that encompasses Planning Design Guidelines, 30 percent Engineering Design Plans, and environmental studies for a 14.2 mile section of the Golden State Corridor extending from Fowler to Kingsburg. Each of these items are discussed in more detail below.

Planning Design Guidelines

The *Golden State Corridor Design Guidelines Manual* (see Appendix A) will provide basic guidelines that promote quality design along the Golden State Boulevard connecting the cities of Fowler, Selma, and Kingsburg, California in the County of Fresno. The design guidelines manual is intended to encourage the design of new development that strengthens the physical character and image of the Boulevard; support the value of property and quality of development, building design, landscaping, and signage without discouraging creativity and flexibility in design; promote the preservation of the Boulevard's historic features; encourage or require sustainable/green "design" approaches to new development; and, permit safe and convenient transportation access and circulation for motorized and non-motorized vehicles, and for pedestrians.

This *Golden State Corridor Design Guidelines Manual* is intended to be utilized by the Fresno COG and the future consultants and contractors for design and construction of improvements inside the Golden State Corridor right-of-way. The guidance is intended to inform designers who will continue the work started with the 30 percent design plans. The design guidelines manual is also intended to be utilized by Fresno County and the cities of Fowler, Kingsburg, and Selma to guide requirements that are placed upon new development adjacent to the Corridor. The design guidelines manual does not propose any land use changes to existing general plans,

but provides guidelines for each of the land use types along the Corridor: Urban Districts, Commercial Activity Nodes, Industrial Corridors, and Agriculture and Open Space Preserves.

The *Design Guidelines Manual* includes recommendations for adoption and amendment of the guidelines. The document recommends that after the design guidelines manual is accepted by the Fresno COG, that Fresno County and the cities of Fowler, Kingsburg, and Selma adopt the design guidelines manual by resolution. Adoption by resolution will require that each jurisdiction adopt a resolution accepting the design guidelines manual as development standards of that jurisdiction with a direction that County/City staff utilize the design guidelines manual when reviewing proposals for private property development. This will require adoption of a resolution by the Board/Council, and does not require a public hearing, although one is recommended to encourage public participation.

Adoption by resolution will not require the jurisdiction to strictly enforce the requirements in the document, but to utilize them more as a tool and a guideline. Typically, any interpretations of how to apply the document will be made by the jurisdiction's Community Development Director or his/her designee. Any amendments to the text of the document can be made by resolution, with or without a public hearing.

The *Design Guidelines Manual* also provides recommendations for handling conflicts between the design guidelines manual and other plans, ordinances, and policies. Each jurisdiction's general plan shall always take precedence over the design guidelines manual. For other ordinances, policies, and standards, the jurisdiction will need to specify which would take precedence in the event of conflicting standards.

The *Design Guidelines Manual* also recommends that a jurisdiction inform the other three jurisdictions and Fresno COG of its intent to consider adoption of a modification of the text of the design guidelines manual for their jurisdiction. Modification by one jurisdiction will not require modification by the other jurisdictions. Each jurisdiction will be able to interpret and apply the design guidelines manual as they choose.

Engineering Design Plans

The Engineering Design Plans (see Appendix B) provide topographic mapping, roadway design, intersection design and cost estimates for the entire Corridor. The Engineering Design Plans have been prepared to a 30 percent level of engineering design. Conceptual landscaping, irrigation, and preliminary grading and drainage plans have also been designed. The objective of the Engineering Design Plans is to convey design concepts and details to stakeholders and provide the ability for the impacts of the proposed improvements to be determined. Additionally, the 30 percent design plans can be used to continue to 100 percent construction plans in the future and allow project components to apply for grant funding. The majority of the project improvements will be constructed within the existing rights-of-way, however it is estimated that roughly one acre of additional right-of-way will need to be secured. The majority of additional right-of-way land is currently under Union Pacific Railroad ownership with lesser amounts under private ownership. Right-of-way would be secured in accordance with standard negotiation processes. The project limits would not extend beyond 300 feet from the current

Golden State Boulevard center line. The proposed project includes the following recommended improvements:

Entire Corridor from approximately 200 feet south of American Avenue to Mission Street

- Add curb/gutter, median curbs, hardscaping, landscaping, and drainage facilities as identified in the Engineering Design Plans.
- Construct and/or install monument signs, historic markers, vehicle pullouts, and park-and-ride areas within the existing road right of way of the Corridor.
- Provide for Class II bicycle lanes along the Corridor.
- Provide for a Class I bicycle trail/path along portions of the Corridor on the westerly side of the roadway.
- Install underground infrastructure necessary to support future traffic signal synchronization and emergency vehicle/express bus signal override.
- Acquire additional right of way as needed per Engineering Design Plans.

Jefferson Avenue at Golden State Boulevard (Fresno County)

- Widen the northbound approach (Golden State Boulevard) to one left turn lane and two through lanes and one right turn lane (adding one right turn lane).
- Widen the southbound approach (Golden State Boulevard) to one left turn lane and two through lanes and one right turn lane (adding one left turn lane and one right turn lane).

Lincoln Avenue at Golden State Boulevard (Fresno County)

- Widen the northbound approach (Golden State Boulevard) to one left turn lane and two through lanes (adding one left turn lane).
- Widen the southbound approach (Golden State Boulevard) to one u-turn lane and two through lanes and one right turn lane (adding one u-turn lane and one right turn lane).

Clayton Avenue at Golden State Boulevard (Fresno County)

- Widen the northbound approach (Golden State Boulevard) to one left turn lane and two through lanes and one right turn lane (adding one left turn lane and one right turn lane).
- Widen the southbound approach (Golden State Boulevard) to one left turn lane and two through lanes and one right turn lane (adding one left turn lane and one right turn lane).

Bonita Avenue at Golden State Boulevard (Fowler)

- Widen the northbound approach (Golden State Boulevard) to one left turn lane and two through lanes (adding one left turn lane).

- Widen the southbound approach (Golden State Boulevard) to two through lanes and one right turn lane (adding one right turn lane).

Adams Avenue at Golden State Boulevard (Fowler)

- Widen the southbound approach (Golden State Boulevard) to two through lanes and one right turn lane (adding one right turn lane).

- Eliminate the intersection of 8th Street at Adams Avenue.

- Abandon portions of 8th Street north and south of Adams Avenue.

Golden State Boulevard between Mariposa Street and Vine Street (Fowler)

- Realign the southbound lanes (Golden State Boulevard) to 8th Street.

- Realign the north bound lanes (Golden State Boulevard) to the current southbound lanes (Golden State Boulevard).

- Abandon the portions of Golden State Boulevard no longer needed for public purpose to the City of Fowler for future sale to private entities.

Mariposa Street at Golden State Boulevard (Fowler)

- Widen the northbound approach (Golden State Boulevard) to one left turn lane, two through lanes and one right turn lane (adding one left turn lane and one right turn lane).

- Widen the southbound approach (Golden State Boulevard) to one left turn lane and two through lanes with a shared right (adding one left turn lane).

Merced Street at Golden State Boulevard (Fowler)

- Widen the eastbound approach (Merced Street) to one left turn lane, one through lane, and one right turn lane (adding one right turn lane).

Main Street at Golden State Boulevard (Fowler)

- Construct new 3-way intersection with Golden State Boulevard, with a one-way stop.

- Widen the northbound approach (Golden State Boulevard) to one left turn lane and two through lanes (adding one left turn lane).

Fresno Street at Golden State Boulevard (Fowler)

- Construct new 3-way intersection with Golden State Boulevard, with a one-way stop.
- Widen the northbound approach (Golden State Boulevard) to one left turn lane and two through lanes (adding one left turn lane).

Vine Street at Golden State Boulevard (Fowler)

- Widen the westbound approach (Vine Street) to one left turn lane and one through lane with a shared right (adding one left turn lane).
- Widen the northbound approach (Golden State Boulevard) to one left turn lane and two through lanes and one right turn lane (adding one left turn lane and one right turn lane).
- Widen the southbound approach (Golden State Boulevard) to one left turn lane and two through lanes with a shared right (adding one left turn lane).

8th Street between Vine Street and South Avenue (Fowler)

- Convert 8th Street between Vine Street and Peach Street to one-way southbound only while retaining existing angle parking.
- Abandon 8th Street between Peach Street and South Avenue while providing parcel to the west with direct access to Golden State Boulevard.

South Avenue at Golden State Boulevard (Fowler)

- Widen the northbound approach (Golden State Boulevard) to one left turn lane, two through lanes, and one right turn lane (adding one right turn lane).
- Widen the southbound approach (Golden State Boulevard) to one left turn lane, two through lanes, and one right turn lane (adding one left turn lane).
- Widen the eastbound approach (South Avenue) to one through lane and one right turn lane (adding one right turn lane).
- Eliminate the intersection of 8th Street at South Avenue.

Temperance Avenue at Golden State Boulevard (Fowler)

- Widen the northbound approach (Golden State Boulevard) to one left turn lane, two through lanes, and one right turn lane (adding one right turn lane).
- Widen the southbound approach (Golden State Boulevard) to one left turn lane, two through lanes, and one right turn lane (adding one right turn lane).

- Install new traffic signal with railroad crossing pre-signal improvements.

Parlier Avenue at Golden State Boulevard (Fowler)

- Widen the northbound approach (Golden State Boulevard) to one left turn lane and two through lanes (adding one left turn lane).

- Construct new median break allowing northbound left turns only.

East Valley Drive at Golden State Boulevard (Fowler)

- Widen the southbound approach (Golden State Boulevard) to one left turn lane and two through lanes (adding one left turn lane).

Manning Avenue at Golden State Boulevard (Fowler)

- Widen the eastbound approach (Manning Avenue) to two left turn lanes, two through lanes, and one right turn lane (adding one left turn lane);

- Widen the westbound approach (Manning Avenue) to one left turn lane, three through lanes, and one right turn lane (adding one through lane and one right turn lane); and

- Widen the northbound approach (Golden State Boulevard) to two left turn lanes, two through lanes, and one right turn lane (adding one left turn lane and one right turn lane).

De Wolf/Springfield Avenues at Golden State Boulevard (Fresno County)

- Install new Traffic Signal.

- Widen the northbound approach (Golden State Boulevard) to one left turn lane and two through lanes, and one right turn lane (adding one left turn lane and one right turn lane).

- Widen the southbound approach (Golden State Boulevard) to one left turn lane and two through lanes with a shared right (adding one left turn lane).

- Install pre-signals at the railroad crossing.

Dinuba Avenue at Golden State Boulevard (Selma)

- Install new Traffic Signal.

- Install pre-signals at the railroad crossing.

- Widen the northbound approach (Golden State Boulevard) to one left turn lane, two through lanes, and one right turn (adding one right turn lane).

- Widen the southbound approach (Golden State Boulevard) to one left turn lane, two through lanes, and one right turn lane (adding one right turn lane).

Highland Avenue at Golden State Boulevard (Selma)

- Widen the westbound approach (Highland Avenue) to one left turn lane and one through-right turn lane (adding one left turn lane).

- Widen railroad crossing and modify railroad crossing protection equipment.

West Front Street at Golden State Boulevard (Selma)

- Modify to a three-way intersection with one-way stop.

- Install Class I bicycle crossing.

West Front Street from northerly connection with Whitson Street to southerly connection with Whitson Street (Selma)

- Install Class II bicycle lanes, with modification and elimination of on-street parking.

- Widen Whitson Street in areas between Whitson Street and Floral Avenue.

Floral Avenue at Whitson Street (Selma)

- Widen the eastbound approach (Floral Avenue) to one left turn lane, two through lanes, and one right turn lane (adding one right turn lane).

North Street at Whitson Street (Selma)

- Widen the northbound approach (Whitson Street) to one left turn lane and two through lanes (adding one left turn lane).

- Widen the southbound approach (Whitson Street) to one left turn lane and two through lanes (adding one left turn lane).

West Front Street at Third Street at McCall Avenue (Selma)

- Modify eastbound right turn lane and through lane.

West Front Street at Golden State Boulevard (Selma)

- Modify to a three-way intersection with one-way stop.

- Install Class I bicycle crossing.

Nebraska Avenue (Park Street) at Golden State Boulevard (Selma)

- Widen the westbound approach (Nebraska Avenue) to one left turn lane and one through lane with a shared right (adding one left turn lane).
- Widen the northbound approach (Golden State Boulevard) to one left turn lane, two through lanes, and one right turn lane (adding one right turn lane).
- Widen the southbound approach (Golden State Boulevard) to one left turn lane and two through lanes (adding one left turn lane).
- Upgrade railroad crossing and protection equipment.

Dockery Avenue at Golden State Boulevard (Selma)

- Widen the northbound approach (Golden State Boulevard) to one left turn lane and two through lanes (adding one left turn lane).
- Widen the southbound approach (Golden State Boulevard) to one u-turn lane and two through lanes (adding one u-turn lane).

Saginaw Avenue at Golden State Boulevard (Selma)

- Widen the northbound approach (Golden State Boulevard) to two through lanes and one right turn lane (adding one right turn lane).
- Widen the southbound approach (Golden State Boulevard) to one left turn lane and two through lanes (adding one left turn lane).

Van Horn Avenue at Golden State Boulevard (Fresno County)

- Widen the northbound approach (Golden State Boulevard) to on left turn lane and two through lanes (adding one left turn lane).

Mountain View Avenue at Golden State Boulevard (Fresno County)

- Widen the northbound approach (Golden State Boulevard) to one left turn lane, two through lanes, and one right turn lane (adding one right turn lane).
- Widen railroad crossing and protection equipment.

Kamm Avenue / Bethel Avenue at Golden State Boulevard (Kingsburg)

- Install new Traffic Signal.
- Widen the northbound approach (Golden State Boulevard) to one left turn lane and two through lanes, and one right turn lane (adding one left turn lane and one right turn lane).

- Widen the southbound approach (Golden State Boulevard) to one left turn lane and two through lanes with a shared right (adding one left turn lane).

- Install pre-signals at the railroad crossing.

Stroud Avenue at Golden State Boulevard (Kingsburg)

- Reconstruct intersection south of existing location at industrial drive approach.

- Abandon existing railroad crossing and construct new crossing.

- Widen the northbound approach (Golden State Boulevard) to one left turn lane and two through lanes, and one right turn lane (adding one left turn lane and one right turn lane).

- Widen the southbound approach (Golden State Boulevard) to one left turn lane and two through lanes with a shared right (adding one left turn lane).

Draper Street at Simpson Street (Kingsburg)

- Widen northbound approach (Simpson Street to one left turn lane and one through lane (adding one left turn lane).

Lewis Street at Simpson Street (Kingsburg)

- Widen northbound approach (Simpson Street) to one left turn lane and one through lane (adding one left turn lane).

Earl Street at Simpson Street (Kingsburg)

- Widen northbound approach (Simpson Street) to one left turn lane and one through lane (adding one left turn lane).

- Widen southbound approach (Simpson Street) to one left turn lane and one through lane (adding one left turn lane).

Environmental Studies

The environmental portion of the project encompasses an environmental document prepared pursuant to the California Environmental Quality Act (CEQA). Project-specific environmental technical studies have been prepared to satisfy the requirements of CEQA.

Project Funding and Implementation

As of September 2011 cost estimates for the proposed project improvements indicate that approximately $64 million will be required for construction all of the improvements (the actual amount may be modified from time to time). As of September 2011, Measure C funding currently estimates that $6 million will be available in 2015/2016 to finalize engineering design plans and that $41 million will be available for construction in 2018 - 2021. Recognizing that

substantial sources of funding will be required over a long period of time to fully finance the project, additional funding sources to supplement Measure C funds will need to be identified. Potential sources include:

- State, federal, and private grant sources;
- Existing impact fees;
- Bond debt financing; and
- Cost-sharing agreements.

The project has been designed in such a manner that any of the individual agencies may be able to adopt and rely on the design plans and environmental studies should they choose to proceed with individual elements of the project with local grant funds in advance of the larger Measure C funds being available, or program the projects in stages to match available money. However, the project may also be constructed as single project should the agencies collectively agree on the phases and cost splits. Given the limited resources, construction as a single project would allow for economies of scale in the design and construction of the roadway improvements rather than having each of the individual agencies contract for, design, and award the work. The Fresno County Transit Authority (FCTA) or other approved entity would serve as the designated construction contractor.

SECTION THREE

EVALUATION OF ENVIRONMENTAL IMPACTS

SECTION THREE – EVALUATION OF ENVIRONMENTAL IMPACTS

Environmental Checklist and Discussion

1. **Project title**:
   Golden State Corridor -
   Economic Development Infrastructure Improvements Project

2. **Lead agency name and address**:
   Fresno Council of Governments
   2035 Tulare Street, Suite 201
   Fresno, CA 93721

3. **Contact person, phone number and e-mail**:
   Lauren Dawson, Project Manager
   Fresno Council of Governments
   (559) 233-4148
   ldawson@fresnocog.org

4. **Project location**: The project is located along Golden State Boulevard, generally from American Avenue in Fowler to the terminus point of Golden State Boulevard near Mission Street in Kingsburg. The project passes through the cities of Fowler, Selma, and Kingsburg and unincorporated areas under the responsibility of the County of Fresno, California.

5. **Project sponsor's name and address**:
   Fresno Council of Governments
   2035 Tulare Street, Suite 201
   Fresno, California 93721

6. **General plan designation**: Not applicable. County of Fresno, City of Fowler, City of Selma, and City of Kingsburg Right-of-Way

7. **Zoning**: Not applicable. County of Fresno, City of Fowler, City of Selma, and City of Kingsburg Right-of-Way

8. **Description of project**: The project is a roadway improvement project that encompasses Planning Design Guidelines, 30 percent Engineering Design Plans, and environmental studies for a 14.2 mile section of Golden State Boulevard extending from Fowler to Kingsburg. Refer to Section Two: Project Description for additional information.

9. **Surrounding land uses and setting**: The existing land uses surrounding the Golden State Corridor include a mix of new and dilapidated industrial properties, limited commercial development, disjointed intersections that are poorly or haphazardly developed and signed, and poorly managed landscaping, buffering,

and screening. The Union Pacific (UP) Railroad mainline runs parallel to the project along Golden State Boulevard with the exception of the downtown area in the City of Selma. The typical speed of trains is 50 to 65 miles per hour with approximately 19 to 29 daily train movements within the project area. The Golden State Corridor is an area specifically planned for industrial and commercial development within the contiguous spheres of influence of the cities of Fowler, Selma, and Kingsburg. The project does not propose any land use or zoning changes to the areas surrounding the project site.

10. **Other public agencies whose approval or consultation is required** (e.g., permits, financing approval, participation agreements):

- City of Fowler
- City of Selma
- City of Kingsburg
- State of California Native American Heritage Commission
- State of California Department of Fish and Game
- State of California Public Utilities Commission
- California State Clearinghouse
- U.S. Army Corps of Engineers
- State of California Department of Transportation (Caltrans)
- San Joaquin Valley Air Pollution Control District
- Central Valley Regional Water Quality Control Board

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

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

DETERMINATION:

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

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

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

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

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Prepared by: Travis Crawford, AICP
Project Manager
Quad Knopf, Inc.

12/5/11
Date

Tony Boren, Executive Director
Fresno Council of Governments

12/6/11
Date

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.1	AESTHETICS				
	Would the project:				
	a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
	b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
	c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
	d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

Environmental Setting

The project area is located on the Valley floor on a 14.2 mile section of the Golden State Boulevard from American Avenue north of the City of Fowler to the terminus point of Golden State Boulevard near Mission Street in Kingsburg. The project passes through the cities of Fowler, Selma, and Kingsburg, and unincorporated areas under the responsibility of the County of Fresno. Golden State Boulevard is a 4-lane roadway, separated by a median with a mix of trees and grasses. Also included within the project area are the eight to 20 foot-wide rights-of-way to the east and west of Golden State Boulevard. State Route 99 (SR-99) is located approximately 800 feet west of the Corridor, and a railroad line, used for transportation of local goods, is located to the east. Generally speaking, the separation from Golden State Boulevard to the railroad line ranges from 50 to 70 feet.

Most of the approximately 14.2 mile extent of the proposed improvements project lies in a rural, agricultural setting. Occasional residences are set back from both sides of the Corridor outside of Fowler, Selma and Kingsburg. In between these cities, vineyards predominate. However, established and new citrus orchards are also apparent. Dry fields, both older and newer processing and packing complexes, an auto wrecker's yard, scattered commercial buildings and new commercial developments can be seen from Golden State Boulevard.

Along the Corridor in Fowler, the dominant themes are agriculture and transportation. Visually, Golden State Boulevard merges with the railroad as a single transportation corridor. Historic and more modern warehouses line the east side of the railroad tracks. On the west is a frontage road along which are historic and modern commercial buildings. Most are related to transportation: Motel Fowler, a trailer park, a diesel repair facility, tire repair and other related businesses. Construction is a mixture of new steel buildings and older stucco and brick buildings. The buildings in the immediate viewshed of Golden State Boulevard in Fowler are largely functional with no dominant architectural style or period of construction.

Golden State Boulevard splits into two routes through Selma. The most well-traveled route is Whitson with its mixture of commercial and residential neighborhoods bordering both sides of the Corridor. Modern shopping centers lie next to mid-20th century motels constructed of cement block. Next door to the Selma Motel is the new Villa Rose apartment complex. On the south side of town, an older residential neighborhood south of Third lies directly across the Corridor from Armando's Smog and Sun Valley Auto Glass and Tires. No one architectural style dominates the Whitson route in Selma.

The parallel route, Front Street, follows the railroad tracks from the north to the south side of the city. To the east, across the tracks, are warehouses, the old hotel and other historic and more modern buildings. Along the northern portion of Front Street most of the buildings on the west side of the street are residences whose construction dates to various periods. South of North Street on Front, there is a mixture of old and new commercial buildings. Modern stuccoed and steel buildings are seen next to historic brick buildings. No particular architectural style dominates on Front Street.

In Kingsburg, Golden State Boulevard (Simpson Street) north of Sierra is semi-rural with the railroad paralleling the Corridor on the east and commercial enterprises in new steel buildings mixed with older concrete block construction such as the Tavcam Inn on the west. Just north of Sierra on the east side of the boulevard is the new Del Monte steel and concrete packing and warehouse building. South of Sierra, the boulevard is landscaped with shrubs in a narrow median and older palm trees and oleanders on the east (railroad) side of the boulevard. South of Draper on Simpson, the viewshed across the railroad tracks includes the old hotel and the railroad depot, which is under restoration. The south end of Simpson to Mission has mixed older homes and more modern commercial buildings of steel and concrete block construction with a Del Monte depot building on the east side of the tracks. As in Fowler and Selma, no particular architectural style or period of construction dominates the viewshed along the Golden State Corridor project in Kingsburg.

Response

Scenic Vista (a): The visual characteristics of the project site and surrounding areas include a mix of residential, commercial, and industrial land uses within the cities, interspersed with agricultural and industrial uses and service operations (some in disrepair or abandoned) in the unincorporated areas. A scenic vista is generally considered a view of an area that has remarkable scenery or a resource that is indigenous to the area. Neither the project site nor any of the surrounding project area contains features typically associated with scenic vistas

(e.g., ridgelines, peaks, overlooks). Therefore, little opportunity exists for project activities to obscure views of scenic vistas. The project areas within the city limits of Fowler, Selma and Kingsburg do not provide any visual resources that would be considered a scenic vista because they primarily consist of urbanized land uses. However, the project area does contain agricultural and open areas in the unincorporated areas that serve to provide contrast with the urban environment. Residents in the project area identified the agricultural and open areas as a scenic landscape in the "*Community Vision for the Golden State Corridor*" prepared by Chabin Concepts in 2003. The project would construct roadway improvements within the existing roadway or rights-of-way, and would not change any existing or proposed land uses, therefore it would not impact the existing agricultural land and open space areas. The *Golden State Corridor Design Guidelines Manual* provides guidance for roadway improvements within the right-of-way of these agricultural and open space areas and is intended to complement the farmland and open space areas, natural vegetation, spring and fall colors, and views on both sides of Golden State Corridor. For the above reasons, the project would not cause a significant impact to scenic resources.

Conclusion: Impacts would be ***less than significant***.

Mitigation Measure: None are required.

Scenic Resources (b): There are no state designated scenic highways within Fresno County. California Department of Transportation Scenic Highway Mapping System identifies State Route 168 (SR-168) in the foothills of Fresno County and State Route 198 (SR-198) in western Fresno County as Eligible State Scenic Highways; however, no official designation has been made. In addition, no scenic highways or roadways are listed within the project area in the respective General Plans for the cities of Fowler, Selma, and Kingsburg and the County of Fresno. The project would construct the majority of roadway improvements within the existing roadway or rights-of-way but would also require roughly one acre of additional right-of-way. The project would not damage any trees, rock outcroppings or historic buildings within a State scenic highway corridor.

Conclusion: There would be ***no impact***.

Mitigation Measure: None are required.

Visual Character (c): The project would not substantially change the visual character of the project area. Golden State Boulevard is an existing feature of the landscape. The project improvements would not introduce new contrasting elements to the landscape. The proposed improvements would slightly alter the character of the roadway, however, because the roadway is currently a part of the landscape, the balance between the natural and developed character of the area would not be disturbed. The *Golden State Corridor Design Guidelines Manual* is intended to be utilized by the Fresno COG and the future consultants and contractors for design and construction of improvements inside the Golden State Corridor right-of-way and is also intended to be utilized by Fresno County and the cities of Fowler, Kingsburg, and Selma to guide requirements that are placed upon new development adjacent to the Corridor. Each of the jurisdictions will need to adopt the manual. The manual does not

require the jurisdiction to strictly enforce the requirements in the document, but to utilize them more as a tool and a guideline. Each jurisdictions' General Plan will take precedence over the manual and each jurisdiction will need to determine how to handle any conflicts between the manual and existing plans, ordinances, and policies. The *Golden State Corridor Design Guidelines Manual* provides guidance to promote quality design along the Golden State Corridor. The manual is intended to enhance the character and sense of place along the Corridor and connect the Corridor to its historic past. The purpose of these design guidelines is to provide a guide for developers, builders, architects, engineers, landscape architects and others involved in the preparation of development proposals to ensure a consistent design and level of quality throughout the project area. Quality design and arrangement of buildings and parking, building facades, design details, plantings, walkways, parking, and methods of screening unsightly views, are all addressed in the guidelines. In summary, the *Design Guidelines Manual* establishes a comprehensive and robust set of guidelines to ensure that future development proposals within the project area provide high quality design that is compatible with surrounding land uses. As such, impacts would be less than significant.

Conclusion: The project would have a ***less than significant impact*** to the existing visual character or quality of the site and its surroundings.

Mitigation Measures: None are required.

Creation of Light or Glare (d): Within the incorporated areas of the project site, existing sources of light include street lights, lighting from adjacent land uses, and lights on vehicles traveling along Golden State Boulevard. In the unincorporated area, the only sources of light include lighting from adjacent land uses and lights on vehicles traveling along Golden State Boulevard. The project would facilitate improved traffic operations along Golden State Boulevard and provide guidance to ensure that future development proposals within the project area provide high quality design that is compatible with surrounding land uses. This analysis is limited to the lighting associated within the right-of-way. Lighting impacts associated with development on adjacent properties would be subject to review by the responsible jurisdiction and is outside the scope of this project. The *Design Guidelines Manual* includes guidance to minimize light impacts and prevent glare onto adjacent properties from development within the right-of-way and development adjacent to Golden State Boulevard. Nevertheless, the project may introduce new sources of light and glare in the form of street lights and signage within the right-of-way. Because of the varying regulatory lighting standards in the incorporated and unincorporated areas of the project site, mitigation is proposed to require project proponents to submit lighting plans to the lead agency or designee for review and approval. The plans would identify lighting fixtures and practices to prevent excessive spillage of light and glare onto neighboring properties. With the implementation of this mitigation, the project would minimize the amount of light and glare it would add to the ambient environment and, therefore, ensure that impacts are reduced to a level of less than significant.

Conclusion: The project has the potential to create a significant impact from light and glare.

Mitigation Measure #3.1-1 – Prior to issuance of construction permits for the project, the project proponent shall provide a lighting plan to the lead agency or designee for review and approval. The plan shall include provisions to ensure that outdoor lighting is designed so that potential glare or light spillover to surrounding land uses is minimized through appropriate site design and shielding of light fixtures. Exterior lighting shall not create glare for neighboring properties but shall provide adequate onsite lighting for safety and security purposes. The lead agency or designee will review the final design plans to ensure that all lighting is directed downward and away from neighboring properties. This mitigation measure does not preclude the use of small-scale decorative lighting that does not spill over onto adjacent property. Each jurisdictions' improvement standards will remain in effect.

The Fresno COG and/or the lead agency or designee shall be provided with documentation that this mitigation measure has been implemented.

Effectiveness of Measure #3.1-1: Implementation of Measure #3.1-1 will reduce impacts to ***less than significant with mitigation incorporated.***

3.2 AGRICULTURE AND FOREST RESOURCES

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12229(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by GC section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Environmental Setting

Agriculture is a major activity in the vicinity of the project site, throughout Fresno County and the Central Valley. The project site is located in Fresno County, the State's largest agricultural county in terms of acreage and economy. The California Department of Conservation Farmland Mapping and Monitoring Program indicated that approximately 56 percent of the County's land area was in cultivated agricultural production in 2008 (most recent year available). Fresno County has consistently maintained its position as the largest agricultural economy in the State during the past 5 years. Between 2004 and 2008, the production value of Fresno County crops increased from $4.6 billion to $5.6 billion. In 2009, the production value of Fresno County crops decreased from 5.6 billion to $5.3 billion. Fresno County is a leading agricultural producing county in the United States, with a gross production value in 2009 of $5,374,175,000.

Response

Farmland Conversion (a, e): Based upon a review of maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency, the majority of the project area is classified *Urban and Built-Up Land*. Some areas surrounding the project site between the cities are classified as *Prime Farmland*, *Unique Farmland*, and *Farmland of Statewide Importance*. The proposed project improvements would occur within the right-of-way of Golden State Boulevard, however some project improvements would require additional right-of-way from the private land owners and Union Pacific railroad right-of-way, these lands are classified as *Urban and Built-Up Land*. In no instances would farmland be needed to accomplish the necessary improvements. No land conversion from Farmland would occur as a result of the Corridor improvement project.

Conclusion: There would be ***no impact***.

Mitigation Measures: None are required.

Zoning Conflicts (b, c): The project area is not covered by a Williamson Act contract. The project does not propose any zone changes related to forest or timberland.

Conclusion: There would be ***no impacts***.

Forest Land Conversion or Loss (d): The project area does not contain forest land, as defined under Public Resource Code or General Code, as referenced above. This condition precludes the possibility of any conversion or loss of forest land occurring as a result of the project.

Conclusion: There would be ***no impact***.

Mitigation Measures: None are required.

3.3 AIR QUALITY

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management of air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations or hazardous emissions?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Environmental Setting

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. The project is located within the jurisdiction of the San Joaquin Valley Air Pollution Control District (District). Guidance, and thresholds recommended by the District are utilized in the analysis. In particular, the District's Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) is used. For background information on air pollutants and modeling output, please refer to the Air Quality Impact Assessment included as Appendix C.

The project is in the San Joaquin Valley Air Basin (Basin). The Basin is in nonattainment for federal ozone and particulate matter (PM2.5), which means that concentrations of those pollutants currently exceed the ambient air quality standards. Ambient air quality standards for criteria pollutants are set by the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (ARB) to protect the health of sensitive individuals. Criteria pollutants include ozone, PM10, PM2.5, carbon monoxide (CO), nitrogen dioxide, lead, and sulfur dioxide. The Basin is in nonattainment of state ambient air quality standards for ozone, PM10, and PM2.5. Ozone is formed through reactions of reactive organic gases (ROGs), nitrogen oxides (NOx), and sunlight.

The SJVAPCD adopted the 2007 PM10 Maintenance Plan and Request for Redesignation (2007 PM10 Plan). The 2007 PM10 Plan contains modeling demonstrations that show the Basin will not exceed the federal PM10 standard for 10 years after the expected EPA redesignation, monitoring, and verification measures, and a contingency plan. Even though EPA revoked the federal annual PM10 standard, the 2007 PM10 Plan addresses both the annual and 24-hour standards because both standards were included in the EPA-approved State Implementation Plan. EPA finalized the determination that the Basin attained the PM10 standards on October 17, 2007, effective October 30, 2007. On September 25, 2008, EPA redesignated the Basin as attainment for the federal PM10 standard and approved the PM10 Plan.

The SJVAPCD adopted the 2008 PM2.5 Plan following a public hearing on April 30, 2008. This plan will assure that the Valley will attain all the PM2.5 standards—the 1997 federal standards, the 2006 federal standards, and the state standard—as soon as possible. The ARB submitted the 2008 PM2.5 Plan to the EPA June 30, 2008. The 2008 PM2.5 Plan builds upon the comprehensive strategy adopted in the 2007 Ozone Plan to bring the Valley into attainment of the 1997 national standards for PM2.5. The EPA has identified NOx and sulfur dioxide as precursors that must be addressed in air quality plans for the 1997 PM2.5 standards. The 2008 PM2.5 Plan is a continuation of the SJVAPCD's strategy to improve the air quality in the San Joaquin Valley.

As an extreme nonattainment area for the 1-hour ozone national standard, the SJVAPCD adopted the Extreme Ozone Attainment Demonstration Plan in 2004. On April 16, 2004 EPA issued a final rule classifying the SJVAB as extreme nonattainment for ozone, effective May 17, 2004 (69 FR 20550). On March 8, 2010, the EPA approved the Plan for 1-hour ozone. The EPA revoked the 1-hour standard on June 15, 2005; however, the control requirements remain in effect to ensure progress toward meeting the new, more stringent 8 hour ozone standard that has replaced the 1-hour standard. The Plan contains commitments to reduce a precursor of ozone, NOx, including NOx reductions from indirect sources. The Plan also includes measures to reduce the ozone precursor ROG from a variety of sources.

The 2007 Ozone Plan contains measures to reduce ozone and particulate matter precursor emissions to bring the Air Basin into attainment with the federal 8-hour ozone standard. The 2007 Ozone Plan calls for a 75-percent reduction of NOx and 25-percent reduction of ROG. The SJVAPCD Governing Board adopted the 2007 Ozone Plan on April 30, 2007. The plan, with innovative measures and a "dual path" strategy, assures expeditious

attainment of the federal 8-hour ozone standard for all Air Basin residents. The ARB approved the plan on June 14, 2007. Though the Basin was initially classified as serious nonattainment for the Federal 1997 8-hour ozone standard, EPA approved a reclassification to extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010).

The construction and operation of the project would be subject to SJVAPCD rules and requirements, including any applicable permitting requirements. Compliance with the SJVAPCD's Regulation VIII (Fugitive PM10 Prohibitions), Rule 2010 (Permits Required), Rule 2201 (New and Modified Stationary Source Review), and Rule 4102 (Nuisance) would be required.

In 2005, the SJVAPCD adopted the Indirect Source Review (ISR) rule (Rule 9510) and the accompanying administrative fee rule (Rule 3180). ISR requires certain development projects within the Basin to reduce emissions by specified amounts either through onsite measures or through the payment of air quality impact fees to the SJVAPCD to obtain emission reductions offsite. Transportation projects that involve the construction of new roads, expansions to existing roads, and improvements to interchange and intersection improvements are covered by Rule 9510. Transportation projects subject to Rule 9510 also must equal or exceed two (2.0) tons of NOx or two (2.0) tons of PM10. Rule 9510 does not apply to maintenance and resurfacing projects, projects that do not increase capacity, projects that do not exceed the emissions threshold, and projects that are included as a transportation control measure in a SJVAPCD plan. Although the proposed project involves intersection improvements, the roadway is not being expanded and as such will not increase capacity of the roadway. Therefore, the project would not be subject to Rule 9510. The SJVAPCD should be consulted prior to project construction to obtain an ISR exemption determination letter.

Future development along the Corridor subject to a discretionary approval by the local jurisdiction would be subject to Rule 9510 if they meet applicable thresholds. These thresholds are as follows:

- 2,000 square feet commercial
- 25,000 square feet light industrial
- 100,000 square feet heavy industrial
- 20,000 square feet medical office
- 39,000 square feet general office
- 9,000 square feet educational
- 10,000 square feet governmental
- 20,000 square feet recreation space
- 50 residential units
- 9,000 square feet of space not included in the list

Response

This section describes the existing air quality setting and potential effects from project implementation on the site and its surrounding area. VRPA Technologies, Inc. performed

air quality analysis for the project, which included construction and operational air quality modeling. The Air Impact Assessment and modeling output are provided in Appendix C.

Air Quality Attainment Plan Consistency (a): The CEQA Guidelines indicate that a significant impact would occur if the proposed project would conflict with or obstruct implementation of the applicable air quality plan. The GAMAQI does not provide specific guidance on analyzing conformity with the Air Quality Plan (AQP). Therefore, this document proposes the following criteria for determining project consistency with the current AQPs:

Will the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQPs? This measure is determined by comparison to the regional and localized thresholds identified by the SJVAPCD for Regional and Local Air Pollutants.

Will the project conform to the assumptions in the AQPs?

Will the project comply with applicable control measures in the AQPs?

The SJVAB is designated nonattainment of state and federal health based air quality standards for ozone and PM2.5. The SJVAB is designated attainment for federal PM10 standards and nonattainment of state PM10. To meet Federal Clean Air Act (CAA) requirements, the SJVAPCD has multiple air quality attainment plan (AQAP) documents, including:

- Extreme Ozone Attainment Demonstration Plan (EOADP) for attainment of the 1-hour ozone standard (2004);
- 2007 Ozone Plan for attainment of the 8-hour ozone standard;
- 2007 PM10 Maintenance Plan and Request for Redesignation; and
- 2008 PM2.5 Plan.

Because of the region's federal nonattainment status for ozone and PM2.5, and state nonattainment status for ozone, PM2.5, and PM10, if the project-generated emissions of either of the ozone precursor pollutants (ROG or NOx), PM10, or PM2.5 were to exceed the SJVAPCD's significance thresholds, then the project uses would be considered to conflict with the attainment plans. In addition, if the project uses were to result in a change in land use and corresponding increases in vehicle miles traveled, they may result in an increase in vehicle miles traveled that is unaccounted for in regional emissions inventories contained in regional air quality control plans.

PROJECT'S CONTRIBUTION TO AIR QUALITY VIOLATIONS

As discussed in Impact (b), below, predicted construction and operational emissions would not exceed the SJVAPCD's significance thresholds for ROG, NOx, PM10, and PM2.5. As a result, the project would not conflict with emissions inventories contained in regional air quality attainment plans, and would not result in a significant contribution to the region's air quality non-attainment status.

CONSISTENCY WITH ASSUMPTIONS IN AQPS

The project does not propose any changes to existing land uses, as such; it would not result in a substantial increase in vehicle miles traveled unaccounted for in regional emissions inventories contained in air quality control plans, such as the Ozone Plan, the PM10 Plan, and the PM2.5 Plan. The project was identified in the Regional Transportation Program (RTP) and Federal Transportation Improvement Program (FTIP). The project extends from American Avenue to the Tulare County Line as identified in the Adopted 2011 RTP as project FRE111334. Project FRE111334 is described in the Fresno COG's Adopted 2011 RTP, Financially Constrained Federal Transportation Improvements Program Projects, on page 6-30, as "Corridor Improvements from American to Tulare County Line (Measure C Project F in the Rural Regional Program)." The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) approved the air quality analysis and conformity finding for PM10 and ozone for the 2011 RTP and FTIP on December 14, 2010. The San Joaquin Valley 2008 PM2.5 Plan has been developed and EPA published a budget adequacy determination for the conformity budgets (effective May 27, 2010). As stated previously, the project does not propose any land use changes that would affect the budgets developed for the PM2.5 Plan; as such, the project would be consistent with the Plan assumptions. Therefore, the proposed project conforms to regional air quality plans.

Conclusion: The project would have a ***less than significant impact***.

Mitigation Measures: None are required.

Air Quality Standards/Violations (b): Because ozone is a regional pollutant (SJVAPCD 2002), the pollutants of concern for localized impacts are PM10 emissions from construction and operational carbon monoxide (CO) emissions from mobile sources. Localized hotspot emissions of CO, PM10, and PM2.5 are also a concern. The project would not result in localized PM10 impacts, CO impacts or localized emissions hotspots as discussed below. Therefore, the project would not violate an air quality standard or contribute to a violation of an air quality standard in the project area.

LOCALIZED PM

Fugitive PM dust emissions would be generated by project construction activities, which would include earth-disturbing activities. In general, PM from fugitive dust generating sources is primarily composed of PM10 with a relatively small fraction of the fugitive PM consisting of PM2.5. The SJVAPCD indicates that all control measures in Regulation VIII

are required for all construction sites by regulation. The SJVAPCD's GAMAQI (SJVAPCD 2002) lists additional measures that may be required of very large projects or projects close to sensitive receptors. If all appropriate "enhanced control measures" in the GAMAQI are not implemented for very large projects or those close to sensitive receptors, then construction impacts would be considered significant (unless the Lead Agency provides a satisfactory detailed explanation as to why a specific measure is unnecessary). The GAMAQI also lists additional control measures (Optional Measures) that may be implemented if further emission reductions are deemed necessary by the Lead Agency. The SJVAPCD's Regulation VIII (Fugitive PM10 Prohibitions) has been updated and expanded since the GAMAQI guidance was written in 2002. Regulation VIII now includes the "enhanced control measures" contained in the GAMAQI.

The project would comply with the SJVAPCD's Regulation VIII dust control requirements during construction (including Rules 8011, 8021, 8031, 8041, and 8071). Compliance with this regulation would reduce the potential for significant localized PM impacts to less than significant levels.

CARBON MONOXIDE

The SJVAPCD is currently in attainment for CO. Despite the success in achieving CO standards, an analysis of localized CO concentrations is warranted to ensure that standards are maintained. Also, an analysis is required to ensure that localized concentrations don't reach potentially unhealthful levels that could affect sensitive receptors (residents, school children, hospital patients, the elderly, etc.).

Typically, high CO concentrations are associated with roadways or intersections operating at an unacceptable Level of Service (LOS). CO "Hotspot" modeling is required if a traffic study reveals that the project will reduce the LOS on one or more streets to E or F or if the project will worsen an existing LOS F.

Two scenarios, Build and No Build were analyzed to determine the project's impacts if the proposed infrastructure improvements were to occur (Build) or if they were not to occur (No Build). The No Build scenario represents the "worst case" scenario. To analyze Build and No Build CO concentrations at study roadway segments, the analysis methodology considered the highest second annual maximum CO concentration reported in 2010, using 1.45 ppm as an estimate of the background concentration for the 8-hour standard and 2.1 ppm for the 1-hour standard (source: CARB annual publications). Other modeling assumptions included a wind speed of 0.5 meters per second, flat topography, 1,000 meter mixing height, and a five degree wind deviation.

Traffic forecasts for the year 2035 were used in the CALINE analysis to determine CO concentrations under worst case conditions with and without the project. Results of the CALINE analysis are shown in Table 3.3-1. Detailed CALINE analysis worksheets are included in Appendix C.

Table 3.3-1
Local Roadway Air Quality Segment Analysis
(1 Hour and 8 Hour CO Concentration)

Receptors		Existing				Future Year 2035			
		No Build		Build		No Build		Build	
#	Description	1 hr	8hr	1 hr	8 hr	1 hr	8hr	1 hr	8 hr
1	Draper St/ Simpson St	5.2	1.7	4.6	1.7	7.0	1.9	6.0	1.8
2	Sierra St/ Simpson St	5.2	1.7	5.1	1.7	7.1	1.9	6.8	1.9
3	Stroud Ave Golden State Blvd	4.5	1.5	4.5	1.5	6.1	1.5	6.1	1.5
4	Kamm/Bethel Ave/ Golden State Blvd	5.3	1.7	5.1	1.7	7.4	1.9	7.0	1.9
5	Mountain View Ave Golden State Blvd	6.2	1.8	6.1	1.8	9.0	2.1	8.5	2.1
6	Saginaw Ave Golden State Blvd	6.3	1.8	6.0	1.8	9.0	2.1	8.5	5\2.1
7	Dockery Ave Golden State Blvd	6.3	1.8	5.9	1.8	9.2	2.1	8.4	2.1
8	Nebraska Ave Golden State Blvd	6.2	1.8	5.7	1.8	9.1	2.1	8.1	2.0
9	2nd St Whitson St	7.8	2.0	7.0	1.9	11.5	2.4	10.2	2.3
10	Thompson Ave Whitson St	7.6	1.9	6.9	1.9	11.2	2.3	10.3	2.3
11	Floral Ave Whitson St	6.9	1.9	7.1	1.8	10.4	2.2	10.5	2.1
12	Highland Ave Golden State Blvd	7.3	2.0	7.1	1.9	10.8	2.4	10.4	2.3
13	Dinuba Ave Golden State Blvd	7.3	1.9	7.1	1.9	10.8	2.3	10.5	2.3

Table 3.3-1
Local Roadway Air Quality Segment Analysis
(1 Hour and 8 Hour CO Concentration) (Continued)

	Receptors	Existing				Future Year 2035			
		No Build		Build		No Build		Build	
14	De Wolf Ave Golden State Blvd	7.3	2.0	7.1	1.9	10.8	2.4	10.6	2.3
15	Manning Ave Golden State Blvd	7.3	1.8	7.2	1.8	10.9	2.1	10.6	2.1
16	Valley Dr Golden State Blvd	6.8	1.9	6.3	1.8	10.0	2.3	9.1	2.1
17	Temperance Ave Golden State Blvd	7.2	1.8	6.2	1.8	10.6	2.1	8.8	2.1
18	South Ave Golden State Blvd	6.2	1.8	6.1	1.8	8.9	2.1	8.8	2.1
19	Vine St Golden State Blvd	6.2	1.8	6.1	1.8	8.9	2.1	8.8	2.1
20	Merced St Golden State Blvd	6.2	1.8	6.1	1.7	8.8	2.0	8.7	2.0
21	Adams Ave Golden State Blvd	5.5	1.5	5.5	1.5	7.6	1.5	7.5	1.5

Notes:
1 CALINEoutput (see Appendix C for model output) plus the highest 1-hour background concentration during the past 3 years of 2.1 ppm.
2 The 8-hour Long Term With Project caused increment was calculated by multiplying the 1-hour CALINE4 output by 0.7 (persistence factor), then adding the highest 8-hour background concentration during the past 3 years of 1.45 ppm.
3 Comparison of the 1-hour concentration to the state standard of 20 ppm and the 8-hour concentration to the state/national standard of 9 ppm.

Source: VRPA Technologies, Inc., 2011(a)

Because the intersections from American Avenue to Adams Avenue are minor intersections they were not included in the scope of work for the Traffic Technical Report completed for the project. As a result, the Air Quality Impact Assessment did not conduct an analysis of these intersections because traffic volumes were not available. The segment of Golden State Boulevard between American Avenue and Adams Avenue includes the following intersections that were not included in the analysis:

- Bonita Avenue;
- Clayton Avenue;
- Clovis Avenue;
- Lincoln Avenue; and
- Jefferson Avenue.

The above intersections are minor intersections and traffic volumes at these intersections are expected to be less than other major intersections studied in the Traffic Technical Report and Air Quality Analysis. It is expected that none of the minor intersections from American

Avenue to Adams Avenue will have significant air impacts as a result of future year traffic volumes because none of the major intersections studied in the Air Quality Assessment had significant impacts.

As shown in the Table 3.3-1, the project would not cause a CO violation of the Federal or State standards. Impacts would be less than significant.

LOCAL EMISSIONS HOT SPOTS

Potential CO , PM2.5 or PM10 violations or an increase in the frequency or severity of any existing CO, PM2.5 or PM10 violations in CO, PM2.5, and PM10 nonattainment and maintenance areas are an additional concern for potential project impacts.

CO Hotspot Analysis

Procedures and guidelines for use by agencies that sponsor transportation projects in evaluating the potential local level CO impacts of a project are contained in the *"Transportation Project-Level Carbon Monoxide Protocol"* (the Protocol). The *Protocol* provides a methodology for determining the level of analysis, if any, required on a project. The guidelines comply with the Clean Air Act, federal and state conformity rules, National Environmental Protection Act (NEPA), and CEQA.

The San Joaquin Valley is a CO attainment area. In accordance with the *Protocol*, in CO attainment areas, only projects that are likely to worsen air quality necessitate further analysis. Projects that worsen air quality are defined as those that significantly increase the percentage of vehicles in cold start mode, those that significantly increase traffic volumes, and those that worsen traffic flow. These criteria are evaluated when comparing Build and No Build scenarios. The determination of project-level CO impacts was carried out according to the Local Analysis flowchart that is provided in the CO Protocol document (please refer to Appendix C, Figure 2-1a and Figure 2-1b).

The San Joaquin Valley Air Basin (SJVAB) is in attainment of CO standards and the Traffic Study prepared for the project showed that all study intersections would operate at level of service (LOS) "D" or better, except for several stop-controlled intersections that are not expected to meet signal warrants. As a result the project, the project is not expected to impact nearby receptors and is not considered regionally significant.

The project area was not redesignated as "attainment' after the 1990 Clean Air Act. The Fresno Urbanized Area was redesignated in April 1996, along with nine other federal planning areas; however, the project area is not considered part of the Fresno Urbanized Area.

The project segment would accommodate approximately 1,118 AM Peak Hour trips and 1,557 PM Peak Hour trips per day within the project limits. The intersections along the project segment are expected to operate at acceptable levels of service "D" or better, except for a few stop-controlled intersections that are not expected to meet signal warrants. As shown in the traffic study prepared for the project, the overall LOS will improve along

Golden State Boulevard with implementation of the project. As a result, implementation of the project would improve traffic flow and decrease CO emissions and the percentage of vehicles operating in cold start mode. Therefore the project will not worsen air quality and the project is considered satisfactory and no further analysis is needed.

Based on the questions delineated in the flowchart as shown in Figure 2-1a and 2-1b in Appendix C, it was determined that the project would not cause a CO Hotspot, therefore, CO impacts are considered less than significant. In accordance with the *Protocol*, the project is satisfactory for local CO impacts.

PM Hotspot Analysis

Method B from the EPA Transportation Conformity Guidance for Qualitative Hot-Spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas was used for performing a qualitative PM2.5 and PM10 hot-spot analysis.

The project-level PM2.5 and PM10 hot-spot analysis relied on air quality data provided at the Drummond Street monitoring site. Air quality information provided by the CARB website shows that the Drummond Street monitoring site had national violations and was above the annual and 24-hour standards for PM2.5 and the Drummond Street monitoring site also had state violations and was above the annual and 24-hour state PM10 standards.

The traffic study completed for the project showed that the estimated Average Daily Traffic (ADT) along Golden State Boulevard in the year 2035 will be 15,570, 15,570, which includes 5 percent of diesel truck traffic.. The EPA's "*Transportation Conformity Guidance for Qualitative Hot-Spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas*" states that a project of air quality concern is a project on a new highway or expressway with greater than 125,000 annual average daily traffic (AADT) and 8 percent or more of such AADT is diesel truck traffic. The traffic study completed for the project also showed that there would not be an increase in traffic as a result of the project. The forecasted 2035 ADT volume of 15,570 is expected with or without the project. The proposed improvement project will increase the efficiency of Golden State Boulevard, which will improve the traffic flow and vehicle speeds, and will not involve an increase in idling.

Based on the information provided above, future new or worsened PM2.5 and PM10 violations of any standards are not anticipated, and therefore, the project meets the conformity hot-spot requirements in 40 CFR 93.116 and 93.123 for PM2.5 and PM10. EPA's final rule defines the project of air quality concern that requires a hot-spot analysis as:

- New or expanded highway projects that have a significant number of or significant increase in diesel vehicles;

- Projects affecting intersections that are at Level-of-Service (LOS) D, E, or F with a significant number of diesel vehicles related to the project;

- New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;

- Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and

- Projects in or affecting locations, areas, or categories of sites which are identified in the PM2.5 and PM10 applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

Conclusion: The project would not result in localized PM2.5, PM10 impacts, CO impacts or cause localized emissions hotspots. Therefore, the project would not violate an air quality standard or contribute to a violation of an air quality standard in the project area; impacts would be ***less than significant***.

Mitigation Measures: None are required.

Cumulatively considerable net increase of non-attainment criteria pollutant (c): The nonattainment pollutants for the SJVAPCD are ozone, PM10 and PM2.5. Therefore, the pollutants of concern for this impact are ozone precursors, regional PM10, and PM2.5. Ozone is a regional pollutant formed by chemical reaction in the atmosphere, and the project's incremental increase in ozone precursor generation is used to determine the potential air quality impacts, as set forth in the GAMAQI.

The SJVAPCD does not have a threshold for regional PM10 or PM2.5. This document proposes a PM10 threshold using the same basis as the ozone precursor thresholds. According to the GAMAQI, the SJVAPCD based the ozone precursor thresholds' "significant contribution" definition on the California Clean Air Act's offset requirements for NOx and ROG. The ROG and NOx offset thresholds are described in SJVAPCD Rule 2201 (New and Modified Stationary Source Review). Since the GAMAQI was published, the SJVAPCD has been recommending use of a PM10 threshold of 15 tons per year. However, a similar basis of threshold is not available for PM2.5 emissions. Because the Basin is in nonattainment for PM2.5, the threshold for PM2.5 for this project will be 9 tons per year. The justification for this number is that PM2.5 is in nonattainment and should have a more stringent threshold than PM10 to provide a worst-case assessment. The annual standard for PM10 is 20 µg/m3 and the annual standard for PM2.5 is 12 µg/m3. Therefore, the ratio of PM10 to PM2.5 results in a threshold for PM2.5 of 9 tons per year.

The annual significance thresholds to be used for the project for operational and construction emissions are as follows:

- 10 tons per year ROG;
- 10 tons per year NOx;
- 15 tons per year PM10; and
- 9 tons per year PM2.5.

SHORT-TERM IMPACTS

Construction Emissions

Construction impacts include fugitive dust and other particulate matter, as well as exhaust emissions generated by earthmoving activities, and operation of grading equipment during site preparation. Construction emissions are caused by onsite or offsite activities. Onsite emissions principally consist of exhaust emissions from heavy-duty construction equipment, motor vehicle operation, and fugitive dust from disturbed soil. Offsite emissions are caused by motor vehicle exhaust from delivery vehicles, as well as worker traffic, but also include road dust.

Construction equipment used on the project site will result in exhaust emissions consisting of NOx, ROG, CO, PM10, and PM2.5. Construction activities are carried out in discrete steps, each of which has a unique mix of equipment. Therefore, the construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and the prevailing weather conditions.

The Sacramento Metropolitan Air Quality Management District's Road Construction model was used to estimate emissions from the infrastructure improvements. (Note that this model was used because no comparable model has been issued by the SJVAPCD). The Roadway Construction Emissions Model is a Microsoft Excel worksheet available to assess the emissions of linear construction projects. The SJVAPCD approves of the use of this model and recommends its use for linear construction projects. The project involves various infrastructure improvements including: roadway realignment, intersection improvements, curb and gutter improvements/construction, and bicycle and pedestrian infrastructure.

The following assumptions were used in estimating the project's construction impacts:

- A construction start date of 2017 was assumed;
- As a conservative basis, it was assumed that the entire length of the project would be widened with an estimated 36-month construction schedule;
- It was assumed that soil would be balanced onsite;
- A total of 14.2 miles of roadway were assumed to be widened;
- The area of disturbance for the project was estimated at 517 acres; and
- A total of 12.1 acres per day were assumed to be the maximum amount of area disturbed on a daily basis.

The estimated project construction emissions are shown below in Table 3.3-2.

Table 3.3-2
Project Construction Emissions (Tons)

Summary Report	ROG	NOx	PM10	PM2.5
Total Construction Emissions	5.20	29.60	42.50	10.00
Construction Emissions/Year	1.73	9.87	14.17	3.33
SJVAPCD Threshold	10	10	15	9
Significant?	**No**	**No**	**No**	**No**

Source: VRPA Technologies, Inc., 2011(a)

The estimated construction emissions represent a very conservative estimate as the Roadway Construction Model assumes that the construction equipment for each phase of construction operates eight hours per day, although not all equipment is used continuously. Additionally, the project modeling included a large area of ground disturbance that would most likely be much less, because many of the proposed improvements involve intersection improvements, paving, and striping, which do not involve substantial ground disturbance and generate fewer emissions. Because the modeling included conservative assumptions, the emissions estimate represents a "worst-case scenario".

As shown above, even with the conservative assumptions, the annual construction emissions would not exceed the SJVAPCD's regional significance thresholds during construction. Although project emissions are predicted to be less than significant, the Fresno area and the San Joaquin Valley are designated nonattainment for particulates for both state and federal standards. As stated under Impact (b), fugitive particle emissions will occur during construction and control measures are required and enforced by the District under Regulation VIII. In addition, the project would be required to comply with local municipal codes, which include the following measures:

- Water sprays or chemical suppressants must be applied to all unpaved roads to control fugitive emissions; and

- All access roads and parking areas must be covered with asphalt-concrete paving.

Furthermore, the project would incorporate Best Management Practices (BMPs) to reduce or eliminate environmental impacts from construction activities. BMPs include, but are not limited to:

- Construction equipment shall be properly tuned and maintained in accordance with manufacturer's specifications. Low-sulfur fuel should be used in all construction equipment as provided in California Code of Regulations Title 17, Section 93114;

- Where available, use electricity from power poles rather than temporary diesel- or gasoline-powered generators;

- Construction activities that affect traffic flow on the arterial roadways shall be scheduled to off-peak hours to the extent possible. Additionally, construction trucks shall be directed away from congested streets or sensitive receptor areas;

- Where possible, enforce truck parking restrictions; provide onsite services to minimize truck traffic in or near residential areas, including services such as meal or cafeteria;

- Wash off trucks as they leave the right-of-way as necessary to control fugitive dust emissions;

- Locate equipment and materials storage sites as far away from residential and park uses as practical. Keep construction areas clean and orderly;

- Use track-out reduction measures such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic; and

- Install mulch or plant vegetation as soon as practical after grading to reduce windblown particulate in the area.

With the implementation of regulatory measures and BMPs, short-term emissions would be considered less than significant.

LONG-TERM IMPACTS

Operational Emissions

Long-term emissions from the project are generated by mobile source (vehicle) emissions from the project site. The project itself would not generate vehicle trips, but would accommodate existing and future traffic accounted for in regional inventories. As discussed in Impact (a), the project was identified in the Regional Transportation Program (RTP) and Federal Transportation Improvement Program (FTIP). Also, the traffic study completed for the project showed that there would not be an increase in traffic as a result of the project, however, the project is expected to increase the efficiency of the roadway and may attract rerouted trips from elsewhere in the transportation network. This would result in an increase in VMT along the highway corridor and potentially an increase in criteria pollutants. Nonetheless, the potential increase in criteria pollutants along the highway corridor would be offset by decreases elsewhere within the transportation system, the project would not result in a net increase in emissions. Impacts would be less than significant.

Conclusion: The project would not cause a cumulatively considerable net increase of ozone precursors (ROG and NOx), PM10, and PM2.5. Impacts would be ***less than significant***.

Mitigation Measures: None are required.

Exposure of sensitive receptors to substantial pollutant concentrations (d): The project would not expose sensitive receptors to substantial concentrations of localized PM10,

carbon monoxide, diesel particulate matter, hazardous air pollutants or naturally occurring asbestos, as discussed below.

LOCALIZED PM10

As shown in Impact (b), above, the project would not generate a significant impact for construction-generated, localized PM10. Therefore, the project would not expose sensitive receptors to unhealthy levels of PM10.

LOCALIZED CO

As shown in Impact (b) above, a CALINE analysis prepared for the project determined that the project would not cause a violation of State or Federal CO standards. Therefore, the project would not expose sensitive receptors to unhealthy levels of CO.

LOCALIZED EMISSIONS HOTSPOTS

As shown in Impact (b), above, the project would not generate a CO hotspot, PM2.5 hotspot or PM10 hotspot. Therefore, the project would not expose sensitive receptors to unhealthy levels of CO or PM.

DIESEL PARTICULATE MATTER (DPM) FROM CONSTRUCTION

Construction equipment generates diesel particulate matter (DPM), identified as a carcinogen by the CARB. The State of California has determined that DPM from diesel-fueled engines poses a chronic health risk with chronic (long-term) inhalation exposure. The California Office of Environmental Health Hazard Assessment (OEHHA) recommends using a 70-year exposure duration for determining residential cancer risks.

Construction phase risks would be considered acute health risks as opposed to cancer risks, which are long term. OEHHA has yet to define acute risk factors for diesel particulates that would allow the calculation of a hazards risk index, thus evaluation of this impact would be speculative and no further discussion is necessary.

HAZARDOUS AIR POLLUTANTS (HAPs)

The Clean Air Act identified 188 air toxics, also known as hazardous air pollutants. The EPA has assessed this expansive list of toxics and identified a group of 21 as mobile source air toxics, which are set forth in an EPA final rule, *Control of Emissions of Hazardous Air Pollutants from Mobile Sources (66 FR 17235).* The EPA also extracted a subset of this list of 21 that it now labels as the six priority Mobile Source Air Toxics (MSATs). These are benzene, formaldehyde, acetaldehyde, diesel particulate matter/diesel exhaust organic gases, acrolein, and 1,3-butadiene. Technical shortcomings of emissions and dispersion models and uncertain science with respect to health effects prevent meaningful or reliable estimates of MSAT emissions and effects of this project. However, it is possible to qualitatively assess the levels of future MSAT emissions under the project. Although a qualitative analysis

cannot identify and measure health impacts from MSATs, it can give a basis for identifying and comparing the potential differences among MSAT emissions, if any, from the build and no build alternatives.

A qualitative assessment was prepared for the project based on a study conducted by the FHWA entitled *"A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives"*. For the build and no build scenarios, the amount of MSATs emitted would be proportional to the vehicle miles traveled, or VMT, assuming that other variables such as fleet mix are the same for each alternative. The VMT estimated for the build scenario is anticipated to be the same as the no build scenario based on the traffic study completed for the proposed project. The proposed improvements increase the efficiency of the roadway and may attract rerouted trips from elsewhere in the transportation network. This increase in VMT would lead to higher MSAT emissions for the build scenario along the highway corridor, along with a corresponding decrease in MSAT emissions along the parallel routes. The emissions increase is offset somewhat by lower MSAT emission rates due to increased speeds; according to EPA's MOBILE6 emissions model, emissions of all of the priority MSATs except for diesel particulate matter decrease as speed increases. The extent to which these speed-related emissions decreases will offset VMT-related emissions increases cannot be reliably projected due to the inherent deficiencies of technical models.

Because the estimated VMT under the build and no build scenarios are the same, it is expected there would be no appreciable difference in overall MSAT emissions among the scenarios. Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce MSAT emissions by 57 to 87 percent between 2000 and 2020. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

An analysis was conducted using the CT-EMFAC Model, Version 2.6 for the six air toxics that are identified as priority MSATs by EPA. The analysis was conducted for each segment along Golden State Boulevard for the Existing and Future Year 2035 conditions. The traffic volumes per hour, average speeds, and percent of trucks during the PM peak hour were used as input data. The estimates show a decrease in MSAT emissions from the existing year levels through future year levels. This decrease is prevalent for all of the priority MSATs, and is consistent with EPA's study described above. This is primarily due to the improved pollution emission performance of a modernizing fleet of all diesel-fueled vehicles, which is a trend that is anticipated to continue throughout the planning horizon.

Table 2-4 in Appendix C of the Traffic Technical Report shows a significant decrease in MSAT emissions can be expected along the roadway segment from the existing year levels through future year levels. Furthermore, Table 2-4 also shows that MSAT emissions are not expected to change with construction of the project improvements. As such, impacts would be less than significant.

NATURALLY OCCURRING ASBESTOS

The Department of Conservation, Division of Mines and Geology published a guide entitled, *"A General Location Guide For Ultramafic Rocks In California - Areas More Likely To Contain Naturally Occurring Asbestos,"* dated August 2000, for generally identifying areas that are likely to contain naturally occurring asbestos. According to the California Division of Mines and Geology, rock formations that contain naturally occurring asbestos are known to be present in 44 of California's 58 counties, including Fresno County.

A review of a map containing areas more likely to have rock formations containing naturally occurring asbestos in California indicates that the project site is not in an area that is likely to contain naturally occurring asbestos. The nearest locations of naturally occurring asbestos shown are more than 20 miles northeast of the project site near Pine Flat Dam. For this reason, the project is not anticipated to expose workers or nearby receptors to naturally occurring asbestos. Moreover, the Natural Resources Conservation Service Soils report indicated that soils on the project site do not contain serpentine or other minerals associated with naturally occurring asbestos. Impacts would be less than significant.

Conclusion: The project would not expose sensitive receptors to substantial pollutant concentrations. Impacts would be ***less than significant***.

Mitigation Measures: None are required.

Odors (e): While offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the SJVAPCD. Any project with the potential to frequently expose members of the public to objectionable odors would be deemed to have a significant impact. Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc., warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas.

Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor. SJVAPCD has determined the common land use types that are known to produce odors in the Air Basin. Included in the types of land uses that are known to create odors are wastewater treatment facilities, chemical manufacturing plants, painting/coating operations, feed lots/dairies, composting facilities, landfills, and transfer stations.

According to the Guide for Assessing and Mitigating Air Quality Impacts, analysis of potential odor impacts should be conducted for the following two situations:

- Generators – projects that would potentially generate odorous emissions proposed to locate near existing sensitive receptors or other land uses where people may congregate; and

- Receivers – residential or other sensitive receptor projects or other projects built for the intent of attracting people locating near existing odor sources.

ODORS FROM THE PROJECT

Types of land uses that are typically identified as sources of objectionable odors include landfills, transfer stations, sewage treatment plants, wastewater pump stations, composting facilities, feed lots, coffee roasters, asphalt batch plants, and rendering plants. The proposed project does not contain any of these uses and, therefore, would not be considered to have the potential to expose persons to substantial sources of objectionable odors. During construction, the various diesel-powered vehicles and equipment in use onsite would create localized odors. Paving equipment used during construction would also generate ROG emissions that would be odorous. These odors would be temporary and would not likely be noticeable for extended periods of time beyond the project's site boundaries. The potential for construction odor impacts would be less than significant.

Conclusion: This impact would be ***less than significant***.

Mitigation Measures: None are required.

3.4 BIOLOGICAL RESOURCES

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	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?	☐	☐	☐	☒

Environmental Setting

The project is located along a 14.2 mile section of the Golden State Boulevard from American Avenue north of the City of Fowler to the terminus point of Golden State Boulevard near Mission Street in Kingsburg. Historically, vegetation communities in the vicinity of the project site likely consisted of a mosaic of Valley Grassland and Sacaton Grassland. The vast majority of these vegetative communities have been eliminated from the area by conversion to agricultural and urban uses. Lands in the vicinity of the project site are now dominated by either rural agriculture, or urban uses within one of the three cities through which the Golden State Boulevard passes.

There is little native vegetation on the project site. Sparsely distributed patches of ruderal native and non-native weedy species occur along the roadside. The dominant grasses and forbs found in these areas are sideoats grama grass (*Avena fatua*), foxtail chess (*Hordeum murinum*), and red brome (*bromus madritensis*). Several species of trees are planted in the rights or way and median of the Corridor. This section of Golden State Boulevard supports oleander (*Nerium oleander*), fan palm (Washingtonia sp.), and Ash (*Fraxinus sp.).* Wildlife observed on or near the site included red-tailed hawk (*Buteo jamaicensis*), and California ground squirrel (*Spermophilus beecheyi*).

The primary soil types within the project area are in the Hanford-Delhi-Hesperia association. These soils types are classified as deep, somewhat excessively drained and well-drained sands to fine sandy loams that are partly wind modified (Refer to Figure 3 in the Biological Survey, Appendix D). Soils are primarily comprised of Delhi loamy sand (28.4 percent), Hanford fine sandy loam (16.5 percent), Hesperia fine sandy loam (16.5 percent), and Hanford sandy loam (15.1 percent).

No part of the site is within the 100 year floodplain, although there are two primary areas adjacent to the project area that are within the 100 year floodplain. These areas are north of the City of Fowler and south of Lincoln Avenue to the east of Golden State Boulevard, and to the west of the City of Selma between Huntsman and Floral Avenues to the west of Golden State Boulevard. A one-hundred-year flood is calculated to be the level of flood water expected to be equaled or exceeded every 100 years on average. The 100-year flood zone is more accurately referred to as the one percent annual exceedance probability flood, since it is a flood that has a one percent chance of being equaled or exceeded in any single year.

Response

This section describes the existing biological resources and potential effects from project implementation on the site and its surrounding area. Quad Knopf biologist conducted a literature and database review and conducted field surveys of the project site and surrounding area to determine potential project impacts. Information on existing vegetative communities, rare plant species, oak trees and riparian trees, special status wildlife species, raptors, and wetlands and waters of the United States was gathered. This information is presented, along with an analysis of potential project impacts and recommended protection measures. See Appendix D for the full Biological Survey.

Substantial adverse effect on sensitive species (a): The project site consists of a divided, paved four-lane roadway, median, and the rights-of way on either side of the roadway. Vegetation within the median and rights-of-way in the rural areas includes ruderal grasses and forbs, barren graded areas, and trees planted as landscaping. In areas further from the Corridor, to the east and west, land use includes vineyards and agricultural-related businesses (e.g., packing houses and shipping yards), or industrial and commercial businesses. Areas within city limits generally contain urbanized landscaping, structures, utilities, and shipping yards. A railway line parallels the eastern side of the entire length of the Corridor. All 14 plant species identified along the Corridor are typical of disturbed or landscaped habitats and the 3 species of wildlife observed are also common in disturbed and urban or rural areas (Table 3.4-1).

Table 3.4-1
Plant and Animal Species Observed During the
Field Survey of the Golden State Corridor Project Area, June 2011

SCIENTIFIC NAME	COMMON NAME	OBSERVATION NOTES
Plants		
Achillea millefoium	Western yarrow	along edge of roadway, south end
Avena fatua	Wild oats	along median of roadway
Bouteloua curtipendula	Sideoats grama grass	along edges of roadway (most common)
Bromus madritensis	Red brome	along edges of roadway
Centaurea solstitalis L.	Yellow star thistle	along edges of roadway, disturbed areas
Conyza anadensis	Canadian horseweed	along edges of roadway (common)
Eremocarpus setigerus	Turkey mullein	along edges of roadway, disturbed areas
Eucalyptus globules	Blue gum eucalyptus	along median and edges of roadway
Fraxinus sp.	Ash (California?)	along median of roadway
Hordeum murinum ssp. *gussoneanum*	Foxtail chess	along edges of roadway
Lepidium oblongum var. oblongum	Wayside peppergrass	along edges of roadway
Malva parviflora	Cheese weed	along edges of roadway, disturbed areas
Nerium Oleander	Oleander	along median and roadway (common)
Washingtonia sp.	Fan palm	along median and roadway
Birds		
Buteo jamaicensis	Red-tailed hawk	in urban area (Kingsburg)
Zenaida macroura	Mourning dove	in urban area (Selma)
Mammals		
Spermophilus beecheyi	California ground squirrel	along roadway at north end of project area only

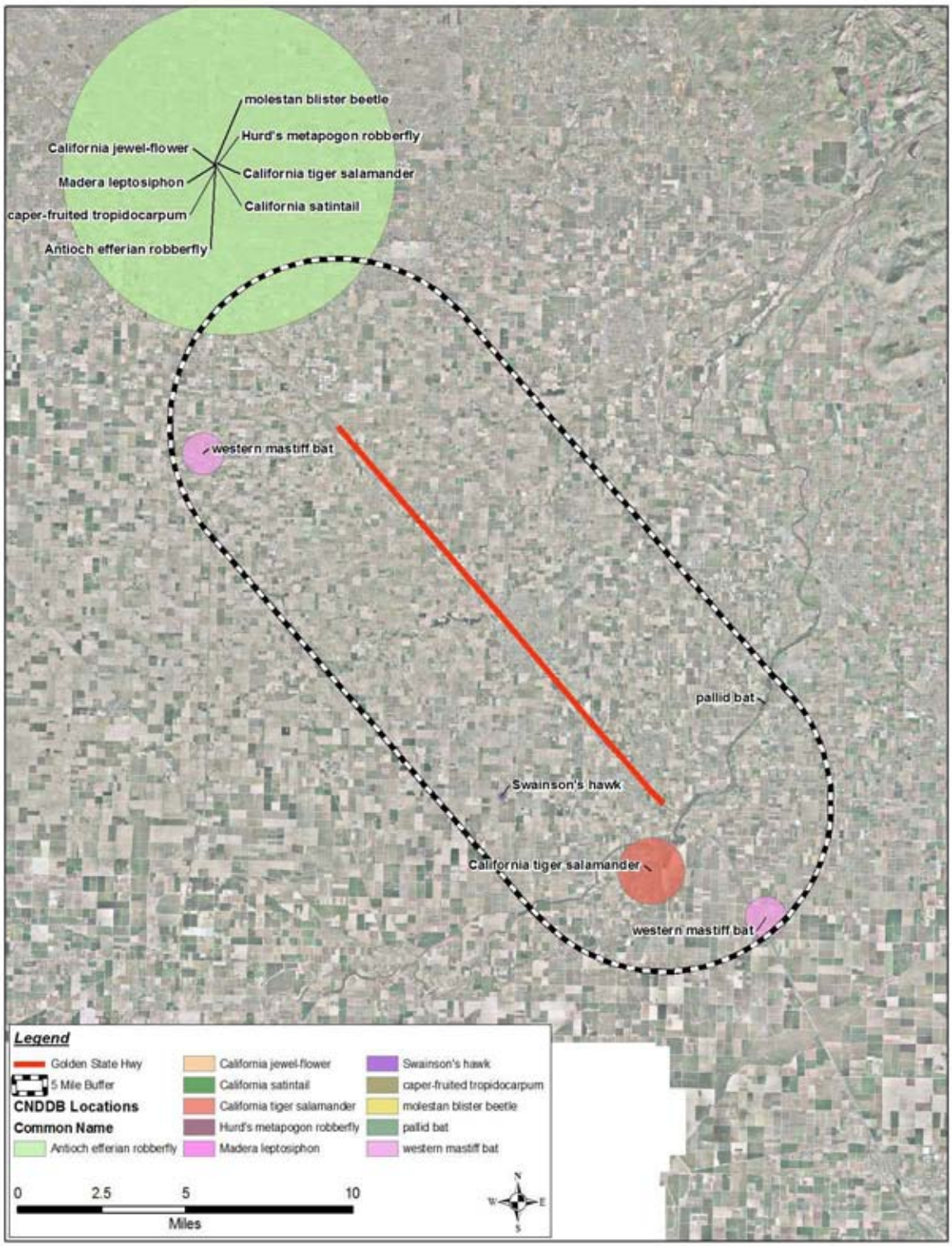
There are four ponding basins that are located outside of the Corridor (see Figure 5 in the Biological Survey, Appendix D), but in close proximity to the project. Several small ditches and canals cross beneath the Corridor roadway and provide water for local agricultural fields. These man-made basins and waterways are maintained on a regular basis and provide only low quality habitat for plant and wildlife species, and weedy species or those with a tendency to occur within disturbed areas predominate. No riparian vegetation occurs around these ditches and canals. Agricultural fields and taller trees may provide seasonal foraging and nesting habitat for a variety of migratory birds and raptors. California ground squirrels were observed along the rights of way only near the northern terminus of the project area.

Areas of agriculture, agricultural related businesses, and commercial and urban development that occur near the Corridor are heavily degraded by vehicles, agricultural equipment, grading or disking, and other human activities. These activities reduce the potential for the occurrence of habitat that would support a high diversity of native plant and wildlife species.

There are no sensitive natural communities known to occur within or in close proximity to the Golden State Corridor project area. There are 20 special-status plant species, and 18 special-status wildlife species that are known to exist in the general vicinity of the project site (Figure 3.4-1). Special-status plants or habitat that would support special-status plants do not occur within the Corridor as the area includes only a paved roadway and highly disturbed rights of way and medians. Much of the disturbed areas within the medians and rights of way contain invasive and/or non-native plant species, and are not suitable to support special-status plant or wildlife species. Several small irrigation ditches flow from east to west beneath the Corridor roadway.

No special-status wildlife species were observed within or adjacent to the Corridor. However, there is the potential for 4 special status wildlife species to occur along the Corridor (See Table 2, Biological Survey, Appendix D). Habitat occurs on the Corridor that would support roosting of the western Mastiff bat (*Eumops perotis*) and pallid bat (*Antrozous pallididus*), although opportunities for foraging are limited. It is possible that the Swainson's hawk (*Buteo swainsonii*) may occur on the project site from time to time. The agricultural lands adjacent to the Corridor may provide suitable foraging habitat for the Swainson's hawk and the trees along the Corridor provide suitable roosting habitat. No nests of this species were observed and it is unlikely that the Swainson's hawk would nest along the corridor because of its tendency to avoid areas of high human activity. One record of Swainson's hawk occurs within five miles of the Corridor (Figure 3.4-1). Swainson's hawks are known from the region and could roost in trees adjacent to the property on a seasonal basis. The San Joaquin kit fox (Vulpes macrotis mutica) is known to occur within ten miles of the project site (See Table 2, Biological Survey, Appendix D) and may occur on the site as a transient forager. Agricultural access roads and open or fallow agricultural fields provide suitable corridors for the movements of this species, although the project site contains very limited prey for the San Joaquin kit fox.

There is also one record of the California tiger salamander (*Ambystoma californiense*) occurring near the project site (Figure 3.4-1), however, there is no habitat within the project site that would support a breeding population of this species and the upland habitat that occurs along the project site is generally not suitable for use as upland aestivation habitat for this species. A description



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RECORDS OF SPECIAL STATUS SPECIES KNOWN WITHIN FIVE MILES OF THE GOLDEN STATE CORRIDOR

Figure 3.4-1

of the natural history of species which may occur along the Corridor, and a discussion of their potential for occurrence is provided in the Biological Survey, Appendix D.

The project site may provide some foraging opportunities for a number of additional sensitive wildlife species including various species of raptors and migratory birds that are protected by the Migratory Bird Treaty Act.

Conditions in the rights of way and median have been heavily impacted by a variety of human activities, such as grading to clear areas of unwanted vegetation; planting of non-native grasslands and landscaping, paving of access roads; development and operations of commercial businesses, and agriculturally activities such as planting, harvesting, packing, and shipping. These activities have resulted in a loss of habitat previously used for breeding, foraging, nesting, roosting, and other activities, so that most areas are not currently suitable for sustaining a diversity of plants and wildlife native to the Central Valley.

Based upon the project footprint provided and the biological information gathered the following project impacts were determined:

SPECIAL-STATUS PLANT SPECIES

The Corridor has been heavily impacted by human activities, including grading, application of herbicides, and the replacement of native vegetation with agricultural crops and invasive grasses, weedy species, and ornamental landscape species. The current habitat is not suitable to support sensitive status plants and the project will not result in impacts to special status plant species.

Conclusion: ***No impacts*** to special-status plant species would occur.

Mitigation Measures: None are required.

SPECIAL-STATUS WILDLIFE SPECIES

Seventeen special status wildlife species were identified as historically occurring within 10 miles of the project site. Of these, four species have the potential to occur on the project site; the western mastiff bat, the pallid bat, the Swainson's hawk, and the San Joaquin kit fox. The western mastiff bat and the pallid bat may roost and forage within the project site, there is the potential for the Swainson's hawk to nest and forage within the project site (although no evidence of this was obtained during the biological survey of the site), and the San Joaquin kit fox may occur as an occasional transient. Some species of migratory birds and raptors may also exist along the Corridor and be subject to project impacts.

Impacts to roosting habitat for the western mastiff bat and pallid bat may occur, because project development plans provide for the removal of some trees, however, overpasses, and other highway structures that would provide potential roosting sites for these bats would not be impacted. Impacts to foraging habitat of San Joaquin kit foxes is unlikely to occur, as roadways will not be expanded in width, and existing rights-of-way and medians do not currently provide foraging habitat. Additional right-of-way that is needed for intersection improvements also

occur on vacant, disturbed land and do not provide foraging habitat. Nevertheless, construction activities may create temporary impacts to roadways and habitat that provide access to foraging sites for the two bat species, raptors, San Joaquin kit fox, and other wildlife. San Joaquin kit foxes are protected by the State and Federal Endangered Species Acts. Mitigation measures are proposed that would ensure that there will be no take of these species.

Conclusion: Project implementation would have a ***potentially significant impact*** on bat species, raptors, San Joaquin kit fox, and other wildlife.

Mitigation Measure #3.4-1: To reduce potential impacts to western mastiff bats and/or pallid bats that could occur during construction activities, the following measures shall be implemented prior to and during construction activities to reduce impacts to a level that is less than significant. The Lead Agency or Designee shall determine the applicability of the following measures depending on specific construction activities and shall implement such measures when required.

- Prior to the removal of trees, or construction activities within 100 feet of the Corridor, the project applicant will conduct a survey to determine the presence of roosting bats. The survey should be conducted 14 days prior to the start of the proposed activity. A Survey shall be conducted during the day to determine potential signs of bats (e.g., white wash, guano) and at dusk, when bats would be expected to be emerging from roost sites. A Survey will be conducted by a wildlife biologist qualified to identify the species of bats using these roosts. If the survey determines that no bats are roosting on or in structures, bridges or trees, then no further mitigation is required.

- If roosting bats are present, the biologist will determine if the roost is a day roost or is a maternal roost. If the roost is determined to be a maternal roost, construction activities that cause the abandonment of the maternal roost or cause harm to bats (e.g., diesel fumes being trapped under the bridges) will be prohibited until the biologist determines that the bat pups have left the roost and are able to fend for themselves. The biologist will consult with the California Department of Fish and Game (CDFG) for further guidance on avoiding and minimizing impacts on a maternal colony.

- If bats are determined to be roosting within the proposed project area, the above measures will be implemented before demolition or construction occurs. If it is determined that the roost is a day roost, the wildlife biologist who conducted the preconstruction survey will recommend appropriate measures to exclude the bats from roosting. These include installing exclusion devices (i.e., lightweight polypropylene netting [<1/6-inch mesh], plastic sheeting, tube-type excluders, etc.) to prevent roosting bats from being in the project area when construction occurs. The biologist will also recommend, through consultation with the CDFG and other bat experts, appropriate replacement roosting habitat for the displaced bats.

Effectiveness of Mitigation Measure #3.4-1: Impacts to bat species would be reduced to ***less than significant with mitigation incorporated.***

Mitigation Measure #3.4-2: Because there is the potential for San Joaquin kit foxes to occur on site, the United States Fish and Wildlife Service's (USFW) Standardized Recommendations for

Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance shall be followed. The measures that are listed below have been excerpted from those guidelines and will protect San Joaquin kit foxes from direct mortality and from destruction of active dens and natal or pupping dens. The Lead Agency or Designee shall determine the applicability of the following measures depending on specific construction activities and shall implement such measures when required.

- Pre-construction surveys shall be conducted no fewer 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 or American badger. Exclusion zones shall be placed in accordance with USFWS Recommendations using the following:

Potential Den	50 foot radius
Known Den	100 foot radius
Natal/Pupping Den (Occupied and Unoccupied)	Contact U.S. Fish and Wildlife Service for guidance
Atypical Den	50 foot radius

  If dens must be removed, they must be appropriately monitored and excavated by a trained wildlife biologist. Replacement dens will be required. Destruction of natal dens and other "known" kit fox dens must not occur until authorized by USFWS.

- Project-related vehicles shall observe a 20-mph speed limit in all project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. Nighttime construction shall be avoided, unless the construction area is appropriately fenced to exclude kit foxes. The area within any such fence must be determined to be uninhabited by San Joaquin Kit foxes prior to initiation of construction. Off-road traffic outside of designated project areas shall be prohibited.

- To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of the project, all excavated, steep-walled holes or trenches more than 2 feet deep should be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the procedures under numbers 8 and 9 of this section must be followed.

- Kit foxes are attracted to den-like structures such as pipes and may enter stored pipe, becoming trapped or injured. 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 shall be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in anyway. If a kit fox is discovered inside a pipe, that section of pipe should not be moved until the USFWS has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved once to remove it from the path of construction activity, until the fox has escaped.

- All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in closed containers and removed at least once a week from a construction or Project Site.

- No firearms shall be allowed on the project site.

- To prevent harassment, mortality of kit foxes or destruction of dens by dogs or cats, no pets shall be permitted on Project Sites.

- A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox, or who finds a dead, injured or entrapped individual. The representative's name and telephone number shall be provided to the USFWS and CDFG.

- In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape, or the USFWS and CDFG should be contacted for advice.

- Any contractor, employee(s), or military or agency personnel who inadvertently kills or injures a San Joaquin kit fox shall immediately report the incident to their representative. This representative shall contact the CDFG immediately in the case of a dead, injured or entrapped kit fox. The CDFG contact for immediate assistance is State Dispatch at (916) 445 0045. They will contact the local warden or biologist.

- The Sacramento Fish and Wildlife Office and CDFG will be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during project related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The USFWS contact is the Chief of the Division of Endangered Species, 2800 Cottage Way, Suite W2605, Sacramento, CA 95825-1846, and (916) 414-6620. The CDFG contact is Mr. Ron Schlorff at 1416 9th Street, Sacramento, CA 95814, (916) 654-4262.

Effectiveness of Mitigation Measure #3.4-2: Impacts to the San Joaquin kit fox would be reduced to ***less than significant with mitigation incorporated.***

RAPTORS AND MIGRATORY BIRD NESTS

The Swainson's hawk and other raptors, and many other species of migratory birds are protected under the Migratory Bird Act and other laws and regulations. Project designs include the removal of some trees from the rights of way and medians, however, most trees along the the Corridor will be preserved and will continue to provide the nesting and roosting opportunities currently available. During the June 2011 survey, few birds were observed within or adjacent to the Corridor. However, trees within the Corridor may be utilized more extensively during migration and nesting seasons. The Corridor is adjacent to rural fields that are either planted in vineyards or are fallow, providing foraging opportunities.

Construction activities, including tree removal could impact Swainson's hawk and other raptors and migratory birds, as these species are sensitive to disturbance, particularly during the nesting season. Although the project site would continue to provide foraging and nesting habitat, there is

the potential for impacts to nesting birds during construction. Mitigation measures are proposed that would reduce the impacts to nesting birds to less than significant levels.

Mitigation Measure #3.4-3: To reduce project related impacts to active bird nests and to reduce the potential for construction activities to interrupt breeding and rearing behaviors of birds, the following measures shall be implemented prior to and during construction activities to reduce impacts to a level that is less than significant. The Lead Agency or Designee shall determine the applicability of the following measures depending on specific construction activities and shall implement such measures when required.

- A pre-construction survey shall be conducted to determine the presence of nesting birds if ground clearing or construction activities will be initiated during the breeding season (February 15 through September 15). The project site and potential nesting areas within 500 feet of the site shall be surveyed 14 to 30 days prior to the initiation of construction. Surveys will be performed by a qualified biologist or ornithologist to verify the presence or absence of nesting birds. Construction shall not occur within a 500 foot buffer surrounding nests of raptors or a 250 foot buffer surrounding nests of migratory birds. If construction within these buffer areas is required or if nests must be removed to allow continuation of construction, then approval will be obtained from CDFG.

- All trees which are suitable for Swainson's hawk nesting that are within 2,640 feet of construction activities shall be inspected for nests by a qualified biologist.

- If potential Swainson's hawk nests are located, surveys to determine whether Swainson's hawks use those nests will be determined by conducting surveys at the following intensities, depending upon dates of initiation of construction.

Construction start	Survey period	Number of surveys	Timing
1 January to 20 March	1 January to 20 March	1	All day
21 March to 24 March	1 January to 20 March	1	All day
	21 March to 24 March	Up to 3	Sunrise to 1000 and 1600 to sunset
24 March to 5 April	1 January to 20 March	1	All day
	21 March to 5 April	3	Sunrise to 1000 and 1600 to sunset
6 April to 9 April	21 March to 5 April	3	Sunrise to 1000 and 1600 to sunset
	6 April to 9 April	Up to 3	Sunrise to 1000 and 1600 to sunset
	1 January to 20 March	1 (if all 3 surveys are performed between 6 and 9 April, then this survey need not be conducted)	All day
10 April to 30 July	21 March to 5 April	3	Sunrise to 1000 and 1600 to sunset

Construction start	Survey period	Number of surveys	Timing
	6 April to 20 April	3	Sunrise to 1200 and 1630 to sunset
31 July to 15 September	6 to 20 April	3	Sunrise to 1200 and 1630 to sunset
	10 to 30 July	3	Sunrise to 1200 and 1600 to sunset

A nest can be eliminated as a potential Swainson's hawk nest if another species of raptor is using the nest.

- If Swainson's hawks are detected to be nesting in trees within 600 feet of the construction area, construction will not occur within this zone until after young Swainson's hawks have fledged (this usually occurs by early June). The nest will be monitored by a qualified biologist to determine fledging date. If Swainson's hawks are found within the project area, the project site would be considered foraging habitat and compensation for foraging habitat would be required by CDFG at a ratio of 0.75 to 1 (0.75 acre for every 1.0 acre adversely affected).

- If other raptors are found nesting within 250 feet of the construction area, construction will be postponed until after young have fledged. The date of fledging will be determined by a qualified biologist. If construction cannot be delayed within this zone, the CDFG will be consulted and alternative protection measures required by the CDFG will be followed.

- The removal of trees shall not occur during the breeding season (February 1st to September 15th). Trees slated for removal during the breeding season shall be surveyed by a qualified biologist prior to removal to ensure that there are no nesting birds occupying the tree.

Effectiveness of Mitigation Measure #3.4-3: Impacts to Swainson's hawks would be reduced to ***less than significant with mitigation incorporated***.

Have a substantial adverse effect on any riparian habitat or other sensitive natural community (b): There are no riparian habitats or other sensitive natural communities located within the project site itself. The project site is highly disturbed and soils found on the project site are heavily compacted. Although there are local ditches and canals that cross beneath the Corridor roadway, they do not include riparian habitat. Therefore, no impacts would occur.

Conclusion: ***No impacts*** would occur.

Mitigation Measures: None are required.

Have a substantial adverse effect on federally protected wetlands (c): The Corridor does not include any major waterways protected by state or federal agencies. However, it includes ditches and canals that carry irrigation water to adjacent agricultural fields. Project designs incorporate these waterways with no intention of moving, blocking, or altering them. Some construction related activities may, however, have the potential to impact waterways by causing sedimentation. This would be considered a potentially significant impact. The project would

incorporate mitigation to protect all canals and ditches and would comply with the National Pollutant Discharge Elimination System (NPDES) permit program through the preparation and implementation of Storm Water Pollution Prevention Plan (SWPPP), as such impacts to local waterways would be reduced to a less than significant level.

Conclusion: Although no wetlands occur on or near the project site, the project would cause a ***potentially significant impact*** to local waterways.

Mitigation Measure #3.4-4: Prior to construction the project proponent shall ensure that buffer areas of up to 100 feet are provided for work occurring near all canals and ditches. The buffer area shall be shown on the applicable construction design maps. The lead agency or designee shall be responsible for reviewing and approving the construction maps with the required buffer area. If a 100 foot avoidance area cannot be maintained during construction, a discharge permit and SWPPP shall be prepared for the specific project component.

The Fresno COG and/or lead agency or designee shall be provided with documentation to show that this mitigation measure has been implemented.

Effectiveness of Mitigation Measure #3.4-4: With the implementation of Mitigation Measure #3.4-4, impacts to local waterways would be ***less than significant with mitigation incorporated***.

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 (d): Movements of wildlife generally fall into three basic categories: a) movements along corridors or habitat linkages associated with home range activities such as foraging, territory defense, and breeding; b) dispersal movements—typically one-way movements (e.g., juvenile animals leaving their natal areas or individuals colonizing new areas), and; c) temporal migration movements – these movements are essentially dispersal actions which involve a return to the place of origin (e.g., deer moving from winter grounds to summer ranges and fawning areas).

The project site has no aquatic habitat that can support native resident or migratory fish species. It is not located within any identified wildlife movement corridor and does not function as a wildlife nursery site. There would be no impact to any movement of wildlife or fish species.

Conclusion: There would be ***no impact***.

Mitigation Measures: None are required.

Impact #3.4.5 - Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (e): The County of Fresno and the cities of Fowler, Selma and Kingsburg do not have specific ordinances regarding trees or other biological resources. As such, the project would not conflict with any ordinances.

Conclusion: Implementation of the proposed project would have ***no impact*** on any local policies or ordinances to protect biological resources.

Mitigation Measures: None are required.

Impact #3.4.6 - Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (f): There are no adopted habitat conservation plans or natural community conservation plans within the County of Fresno or the cities of Fowler, Selma and Kingsburg. As such, the project would not conflict with any Habitat Conservation Plan.

Conclusion: There would be ***no impact.***

Mitigation Measures: None are required.

3.5 CULTURAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064385?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

This section describes existing cultural and historical resources and potential effects from the project's implementation on the site and its surrounding area. Information is based on the *"Golden State Corridor Project Cultural Resources Assessment"* (CRA) prepared by Ric Windmiller (Consulting Archeologists) and included in its entirety as Appendix E of this Mitigated Negative Declaration (MND). The following includes a summary of the information in the CRA. For a more detailed accounting of the cultural background of the project vicinity, and California in general, please refer to the CRA, as the content of this section focuses primarily on site-specific information.

Environmental Setting

OVERVIEW

The term "cultural resources" encompasses historic, archaeological, and paleontological resources and burial sites. Below is a brief summary of each component:

Historic Resources: Historic resources are associated with the recent past. In California, historic resources are typically associated with the Spanish, Mexican, and American periods in the State's history and are generally less than 200 years old.

Archaeological Resources: Archaeology is the study of prehistoric human activities and cultures. Archaeological resources are generally associated with indigenous cultures.

Paleontological Resources: Paleontology is the study of plant and animal fossils.

Burial Sites: Burial sites are formal or informal locations where human remains, usually associated with indigenous cultures, are interred.

Located between the Kings River on the south and the San Joaquin River on the north, the Golden State Corridor project area was a vast prairie of grassland that supported herds of elk and pronghorn. Yokutsan-speaking native people, who inhabited the region early in history, lived in villages along the main rivers and sloughs. In the barren lands between the rivers, the Southern Valley Yokuts conducted mass hunts for rabbits. However, it is reported that the native people rarely preyed on the herds of antelope or elk. Instead, they sought fish, shellfish and waterfowl in the sloughs and marshes that covered the center of the San Joaquin Valley. The earliest settlement of the region by Anglo-Americans was along the same rivers inhabited by the native people.

The towns of Fowler, Selma and Kingsburg grew around the railroad switches. In the early 1900s, the State of California laid plans for a highway that would traverse the east side of the Central Valley and eventually connect Canada and Mexico: US 99. The local remnant of that historic route is Golden State Boulevard.

The dominant historic themes of the region include: prehistoric and historic settlement, agriculture, irrigation water and transportation.

RECORD SEARCHES

Southern San Joaquin Valley Information Center

The Southern San Joaquin Valley Information Center, California Historical Resources Information System completed a records search for the Golden State Corridor project on May 31, 2011. According to the information center's letter report, 13 previous cultural resource studies have been conducted within a 150 foot radius of the project area. Two of the previous studies included field inspections along the entire length of the Golden State Corridor that is the current project area. The first study was a cultural resources inventory for the proposed Mojave Northward Expansion Project completed in July 1995 (information center report # FR-135). The second study that was conducted on the Golden State Corridor was a cultural resources monitoring project for the Qwest Network Construction (information center report # FR-2287).

The information center identified eight cultural resources recorded within the records search radius. Six of those cultural resources are actually located within or immediately adjacent to Golden State Boulevard. However, a search of listings for the National Register of Historic Places, the California Register of Historical Resources, State Historic Landmarks, California Inventory of Historic Resources and the California Points of Historical Interest failed to identify any historical resources (cultural resources significant under one or more criteria of importance outlined in CEQA statutes, guidelines and advisories.

Native American Heritage Commission Record Search

On May 6, 2011, the Native American Heritage Commission (NAHC) responded to a request from the consultant for a search of its sacred lands file. The NAHC indicated in a written letter report that the file search failed to indicate the presence of Native American cultural resources within the project area identified by the consultant. Included with the response was a list of twelve Native American representatives who may have knowledge of cultural resources within the project site. The commission's representative provided a list of Native American contacts as potential additional sources of information on Native American cultural resources.

To ensure that all Native American resources were adequately addressed, letters to each of the twelve listed tribal contacts were sent on June 17, 2011, which requested information regarding the presence of any known cultural resources on the project site or within a 0.25-mile radius beyond the project site. As of the date of this writing, only one response was received. The response was from Ms. Elizabeth D. Kipp, Tribal Chairperson, Big Sandy Rancheria. In a June 21, 2011 form letter faxed to the consultant, Ms. Kipp indicated that she reviewed the consultant's consultation request and determined that there was no likelihood of eligible properties of religious and cultural significance to the Big Sandy Rancheria.

Historical Society

The Kingsburg Historical Society was also contacted to determine if the project would have any impact on resources identified in their records. In a May 4, 2011 email, the consultant outlined the nature of the project and the consultant's study and requested information on who best to contact regarding local history. As of the date of this writing, no response has been received.

Pedestrian Survey

A two person field team led by Ric Windmiller, Registered Professional Archaeologist and Dan Osanna, Registered Historian #572 conducted a five day field inspection from June 20-24, 2011. The field team visually inspected both sides of Golden State Boulevard and the median along parallel transects (one on each side of the boulevard and one transect for the median). Historic structures were documented on DPR 523 series record forms.

Field inspection of the Golden State Corridor project area was based on the consultant's estimated width of the corridor. The boundaries of the corridor were not flagged or posted. The field team documented cultural resources located within and immediately adjacent to the estimated width of the corridor except in the towns where the built environment lies adjacent to the boulevard. In those areas, buildings adjacent to the boulevard were considered outside the zone of proposed construction.

Field conditions outside of Fowler, Selma and Kingsburg consisted of dense landscaping vegetation (over mature oleanders) and dense, high introduced grasses and annuals that inhibited or prevented inspection of as much as 50 percent of the Golden State Corridor project

area. In the urban areas, landscaping and hardscape such as sidewalks and paved parking areas prevented inspection of the ground surface. Bare ground was therefore restricted to several vacant lots as found in Kingsburg and Selma, the relatively broad, bare shoulders and sparsely grassed median in Fowler and vacant land adjacent to the railroad right-of-way in all three towns. Despite these hindrances to inspection, it is unlikely that any historical resources significant under CEQA statutes and guidelines were overlooked.

RESULTS

The pedestrian survey identified 14 cultural resources within or immediately adjacent to the Golden State Corridor project area. All of the resources identified are historic, non-Native American cultural resources.

EVALUATION

Under the California Environmental Quality Act (CEQA), historical resources are recognized as a part of the environment [Public Resource Code §21001(b), §21083.2, §21084(e), §21084.1]. A "historical resource" includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript that is historically or archaeologically significant, or important in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military or cultural annals of California (Public Resources Code §5021.1).

The California Register is an authoritative listing and guide for state and local agencies and private groups and citizens in identifying historical resources. This listing and guide indicates which resources should be protected from substantial adverse change. The California Register includes historical resources that are listed automatically by virtue of their appearance on or eligibility for certain other lists of important resources. The Register includes historical resources that have been nominated by application and listed after public hearing. Also included are historical resources listed as a result of an evaluation by specific criteria and procedures adopted by the State Historical Resource Commission.

The criteria used for determining the eligibility of a cultural resource for the California Register are similar to those developed by the National Park Service for the National Register of Historic Places. However, criteria of eligibility for the California Register were reworded to better reflect California history.

Any building, site, structure, object or historic district meeting one or more of the following criteria may be eligible for listing in the California Register:

It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;

It is associated with the lives of persons important to local, California, or national history;

It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or

It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Eligibility for the California Register also depends on the integrity, or the survival of characteristics of the resource that existed during its period of significance. Eligible historic resources must not only meet one of the above criteria, but also they must retain enough of their historic character or appearance to convey the reasons for their importance, or retain the potential to yield significant scientific or historical information or specific data.

Like the process of evaluating historical resources for National Register eligibility, California Register evaluations include the consideration of seven aspects of integrity: location, design, setting, materials, workmanship, feeling and association. The evaluation of integrity must be judged with reference to the particular criterion or criteria under which a resource may be eligible for the California Register. However, the implementing regulations specifically caution that alterations of a historic resource over time may themselves have historical, cultural or architectural significance.

Most often, historical resources eligible for the California Register will be 50 years old or older. However, the implementing regulations stipulate that "*a resource less than 50 years old may be considered for listing in the California Register if it can be demonstrated that sufficient time has passed to understand its historical importance*." If an archaeological resource does not meet the definition of a "historical resource," it may meet the definition of a "unique archaeological resource" under Public Resource Code §21083.2. An archaeological resource is "unique" if it:

- Is associated with an event or person of recognized significance in California or American history or recognized scientific importance in prehistory;
- Can provide information that is of demonstrable public interest and is useful in addressing scientifically consequential and reasonable research questions;
- Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind;
- Is at least 100 years old and possesses substantial stratigraphic integrity; and
- Involves important research questions that can be answered only with archaeological methods.

The following section evaluates the 14 cultural resources identified by the pedestrian survey with respect to the criteria discussed above.

P-10-002961 (Briggs Canal–Golden State Boulevard Segment)

The Briggs Canal is shared by Fresno Irrigation District and Consolidated Irrigation District. The latter encompasses the region around Fowler, Selma and Kingsburg. The concrete syphon architecture visible within the Golden State Boulevard corridor is purely functional. The pump house is also purely functional in form, although it is in dilapidated condition. While the concrete features are more than 50 years old, the structures do not appear to represent a significant improvement in design or construction associated with any particular period, nor associated with a significant architect, designer or builder. Construction was probably carried out by a local contractor or the irrigation district. The little building does not appear to be a particularly good representative of pump houses, nor does it have the potential to yield information important in history. It is the consultant's opinion that the structures are not eligible for the California Register under any criterion.

P-10-002962 (Historic Artifact Scatter)

This archaeological site is a surface scatter of historic artifacts in the median between the north- and south-bound lanes of Golden State Boulevard in Fowler. No features are evident. The artifact scatter is sparse and located in what could be termed, "urban land," a highly disturbed soil that may include fill transported from another location. In view of this physical context, the site is unlikely to yield intact cultural deposits of any significance. The most likely criterion of eligibility for the California Register would be Criterion 4, the potential to yield information important in history. However, it is apparent that the site lacks integrity of design (lack of intra-site artifact and feature patterning), potentially lack of integrity of location if the few artifacts are associated with imported fill, integrity of materials (completeness of the artifact assemblage), workmanship (lack of quality in the artifact assemblage) and lack of integrity of association (lack of strength of the relationship between the site's data or information and important research questions). If the site had contained Chinese artifacts or artifact relating to the Chinatown that was located on the west side of the railroad, then some significance may have been attached to the artifact scatter. Therefore, it is the consultant's opinion that the site is not eligible for the California Register, nor does it qualify as a "unique archaeological resource" under CEQA.

P-10-002963 (Fowler Switch Canal–Golden State Boulevard Segment)

The original 1995 site record described the canal primarily by three features: the canal itself at Golden State Boulevard, the concrete "bridge" over the canal at the north-bound lanes of the boulevard and; the railroad trestle crossing the canal on the east side of the boulevard. In California, the most common historic bridge type is that constructed of concrete. The use of reinforced concrete was introduced to the United States from Europe in the mid-1870s. Its first use in bridge work in the country was in 1889. The Fowler Switch Canal structures date to 1934. Such reinforced concrete structures are more numerous in California than in other states. The structures that underlie Golden State Boulevard have only a weak association with bridges and similar structures during the rise of reinforced concrete bridge construction in California. Therefore, it is the consultant's opinion that the bridge type culvert described here

is not eligible for the California Register under Criterion 1. The bridge-culvert is not associated with a specific designer, engineer or contractor significant in California or local history, nor is it a particularly significant type of structure. Therefore, it does not appear eligible under Criterion 2. The bridge-culvert does not appear to represent innovation in design or materials, as bridges of concrete were already in common use in the state by the time of its period of construction. Therefore, it is not eligible under Criterion 3. Also, the bridge-culvert does not appear to have the potential to yield information important in local, regional, state or national history. It is the consultant's opinion that the structure located within the Golden State Corridor project area is not eligible for the California Register under any criterion.

P-10-002965 (Concrete Structure)

This small concrete structure was originally identified as a possible water flow gate structure of the Ward Drainage Canal. The concrete structure may be associated with an underground cable crossing of the boulevard. An old rusted sign indicating the location of the crossing is posted next to the north side of the concrete monolith. Condition of the concrete structure appears unchanged from the illustration shown in the original April, 1995 record form. As this approximately six foot high monolith lacks clear evidence of function and association, it cannot be evaluated for California Register eligibility at the present time. As it appears to be located within the present Golden State Boulevard right-of-way, it is structurally associated with the boulevard, although functionally, it may be associated with another use or facility.

P-10-002966 (Paladini Ditch-Golden State Boulevard Segment)

The original record form for this resource describes a concrete gate and a ditch, neither of which are located within the Golden State Corridor project area. Water from this ditch runs through a siphon buried under the Golden State Boulevard right-of-way. Because there are no associated water conveyance structures visible within the existing corridor, no evaluation as to significance could be made.

Field No. GSC-01 (Mussel Slough Tragedy Monument)

This historic object is a stone monument commemorating the site of the Mussel Slough tragedy (State Historic Landmark No. 245). Although there is no date of construction on the monument, nor has historical research yielded a date of construction, the patina on the bronze plaque and style of monument construction suggest that the monument is at least 50 years old. As the monument commemorates a historic site some 18 miles distant, there is no physical association between the monument and the site it commemorates. For California Register eligibility, the monument must be significant for its architectural or other design qualities of its own period in history. In the consultant's opinion, the monument does typify California State Parks monuments of the 1950s and 1960s. However, it is not necessarily significant because of that association. To be eligible for the California Register for its age, tradition or symbolic value, the monument must have been erected by a cultural group where subsequent generations came to see the marker as the focus of the group's historic identity, or where the marker came to symbolize enduring principles or contributions valued by the generation that erected the

monument, or where the marker was erected early in the settlement of the area it commemorates. In the case of this particular Mussel Slough Tragedy monument, none of these conditions apply. Therefore, it is the consultant's opinion that the monument is not eligible for the California Register of Historical Resources.

Field No. GSC-02 (Artifact Scatter)

This historic site is a freshly disked lot of sandy soil located on the east side of Golden State Boulevard (Whitson Avenue) in Selma. The artifact scatter is sparse and located in what could be termed, "urban land," a highly disturbed soil that may include fill transported from another location. In view of this physical context, the site is unlikely to yield intact cultural deposits of any significance. The most likely criterion of eligibility for the California Register would be Criterion 4, the potential to yield information important in history. However, it is apparent that the site lacks integrity of design (lack of intra-site artifact and feature patterning), potentially lack of integrity of location if the few artifacts are associated with imported fill, integrity of materials (completeness of the artifact assemblage), workmanship (lack of quality in the artifact assemblage) and lack of integrity of association (lack of strength of the relationship between the site's data or information and any potentially important research questions). It is the consultant's opinion that the site is not eligible for the California Register, nor does it qualify as a "unique archaeological resource" under CEQA.

Field No. GSC-03 (Remnant Railroad Siding)

This historic resource is a remnant railroad siding. Located at the east edge of a vacant lot on the west side of Golden State Boulevard (Simpson Street) south of Sierra Street in Kingsburg, the siding consists of an estimated 100 foot long segment of track located at the east edge of a lot that fronts on Golden State Boulevard for many hundreds of feet. The precise origin and destination of the siding is not apparent based on the site inspection. However, a 1929 Sanborn fire insurance map illustrates a railroad siding to warehouse and office buildings of the Standard Oil Company of California located on the same side of Simpson south of Sierra. The tracks described above may be a remnant of that siding. The remnant siding has only a weak association with the initial construction and expansion of the railroad in Kingsburg. Therefore, it is the consultant's opinion that the remnant tracks described here are not eligible for the California Register under Criterion 1. The track remnant is not associated with a specific designer, engineer or contractor significant in California or local history, nor is it a particularly significant type of structure. Therefore, it does not appear eligible under Criterion 2. The track remnant does not appear to represent innovation in design or materials, as tracks were already in common use in the state by the time of its period of construction. Therefore, it is not eligible under Criterion 3. Also, the railroad track remnant does not appear to have the potential to yield information important in local, regional, state or national history. It is the consultant's opinion that the remnant tracks are not eligible for the California Register under any criterion.

Field No. GSC-04 (Selma Branch, Centerville and Kingsburg Canal-Golden State Boulevard Segment)

This historic linear resource is a short (300 foot) segment of the Selma Branch, Centerville and Kingsburg Canal that crosses under Golden State Boulevard (Whitson Street) in Selma. The year, "1938" is embossed in the upper center of the concrete portal. In California, the most common historic bridge type is that constructed of concrete. The use of reinforced concrete was introduced to the United States from Europe in the mid-1870s. Its first use in bridge work in the country was in 1889. The Selma Branch Canal structures date to 1938. Such reinforced concrete structures are more numerous in California than in other states. The structures that underlie Golden State Boulevard have only a weak association with bridges and similar structures during the rise of reinforced concrete bridge construction in California. Therefore, it is the consultant's opinion that the bridge type culvert described here is not eligible for the California Register under Criterion 1. The bridge-culvert is not associated with a specific designer, engineer or contractor significant in California or local history, nor is it a particularly significant type of structure. Therefore, it does not appear eligible under Criterion 2. The bridge-culvert does not appear to represent innovation in design or materials, as bridges of concrete were already in common use in the state by the time of its period of construction. Therefore, it is not eligible under Criterion 3. Also, the bridge-culvert does not appear to have the potential to yield information important in local, regional, state or national history. It is the consultant's opinion that the structure located within the Golden State Corridor project area is not eligible for the California Register under any criterion.

Field No. GSC-05 (Artifact Scatter)

This archaeological site is a vacant lot with a sparse scatter of fragmented historic artifacts. The lot is located on the west side of Golden State Boulevard (Whitson in Selma). Most of the lot has been recently disked. Fragments of older red bricks are scattered across the surface of the lot. Among the sparse scatter of brick fragments are a few fragments of a thick porcelain dinnerware. The artifact scatter is located in what could be termed, "urban land," a highly disturbed soil that may include fill transported from another location. The most likely criterion of eligibility for the California Register would be Criterion 4, the potential to yield information important in history. However, it is apparent that the site lacks integrity of design (lack of intra-site artifact and feature patterning), potentially lack of integrity of location if the few artifacts are associated with imported fill, integrity of materials (completeness of the artifact assemblage), workmanship (lack of quality in the artifact assemblage) and lack of integrity of association (lack of strength of the relationship between the site's data or information and important research questions). It is the consultant's opinion that the site is not eligible for the California Register, nor does it qualify as a "unique archaeological resource" under CEQA.

Field No. GSC-06 (Residential Site)

This historic archaeological resource is an old residential site. The principal features include a large cellar pit, a capped well, utility pole and landscaping. In comparing old maps, it is apparent that the house was razed at some time since 1978. No temporally-sensitive artifacts were found at the site. The most likely criterion of California Register eligibility for a site of

this type would be Criterion 4–the potential to yield information important in history. For example, a recent journal article by archaeologist Brian Crane explored the relationships between historic Washington D.C. households and their backyard garbage deposits. Crane's study included a comparison between the occupations of historic residents to identify differences in refuse disposal from working class households to professional households. The significance of trash lies mainly in the potential through quantitative and comparative studies for yielding information on day to day life, including patterns of food consumption, unavailable through written or oral history. If that information can be connected to a particular sector of a community or a particular household, then any patterns resulting from the quantitative and comparative studies would be meaningful in understanding how various households, ethnic or other groups adapted during specific historic periods.

In the context of the present site, however, there were no surface indicators of trash deposits or other features that would allow for quantitative or comparative studies of any apparent significance. Under Criterion 4, the most important aspects of integrity for a historic site of this type would be: location, design, materials, workmanship and association. To retain integrity of location, there would need to be a discernable pattern of artifacts and/or features at the site. There is no discernable pattern of artifacts and the features are limited to landscaping, a capped well, utility pole and badly damaged (razed) cellar. Integrity of design for historic archaeological sites would be the degree to which on-site patterns of artifacts and features are present. Little or no such patterning was observed by the consultant during the field survey except for that described above.

Integrity of materials is usually described in terms of the presence of intrusive artifacts and/or features, the completeness of the artifact assemblage or the quality of preservation. Again, no period artifacts remain visible on the ground surface and the likelihood of significant subsurface cultural deposits has such a low probability that one could conclude that the integrity of materials is poor. Integrity of workmanship is usually addressed indirectly in terms of the quality of the artifacts or architectural features. Period artifacts are conspicuous by their absence. The importance of workmanship as an aspect of integrity depends on the nature of the site in question and its research potential.

Integrity of association under Criterion 4 is measured in terms of the strength of the relationship between the information the site could produce and important research questions. For example, a site with a well-stratified trash deposit or privy pit with identifiable artifacts may have the potential to answer questions as we saw above in the Washington, D.C. historic neighborhoods example.

As an archaeological site may also be significant as a "unique archaeological resource" under CEQA, it is also necessary to consider each of the criteria of "uniqueness." However, none of the five criteria seem to apply to this particular historic site.

After assessing each of the above aspects of integrity and considering each criterion of eligibility for the California Register and also evaluating the site's eligibility as a "unique archaeological resource," it is this consultant's conclusion that the site is not eligible for the California Register under any criterion, nor does it qualify as a "unique archaeological resource."

Field No. GSC-07 (Golden State Boulevard-American Avenue to Mission Street Segment)

This segment of US 99 was part of one of the major north-south highways in the United States; it connected Canada and Mexico. The highway was first commissioned as a US route in 1926. However, the Fowler-Selma-Kingsburg segment was not the first segment to be built as US 99. That distinction goes to the segment constructed in the mountains above Los Angeles.

After World War II, section by section, US 99 became freeway and eventually, US 99's interstate status was revoked in favor of Interstate 5. Most of the 14.2 mile segment from American Avenue north of Fowler to Mission Street in Kingsburg is divided highway, which has been replaced by the modern State Route 99 freeway bypassing the three cities. On the old highway, the two side-by-side north-bound lanes are asphalt paved and parallel the west side of the old Southern Pacific tracks (now Union Pacific). The east edge of the highway right-of-way bordering railroad property supports mature flowering oleanders. The two south-bound lanes are separated from the north-bound lanes by a wide median in most places, which is also planted in mature flowering oleanders. Mature trees including some palms grow in places both along the median and along the east side of the highway. The south-bound lanes are paved in concrete with an asphalt top coating in some places. The west side of the highway is not regularly landscaped.

As the old segment of US 99 is located adjacent to and parallels the railroad for the length of the highway segment, the railroad can be used as a comparison with respect to eligibility for the California Register under Criterion 1–association with important events or broad patterns of events. While the impact of initial construction of the railroad and growth of its use throughout history is well-documented, one cannot say the same for the adjacent segment of highway. The highway segment has only a weak association with the initial construction of road segments that would eventually become US 99. The highway does not appear to be associated with a specific designer, engineer or contractor significant in California or local history, nor is it a particularly significant type of structure. Therefore, it does not appear eligible under Criterion 2. This highway segment does not appear to represent innovation in design or materials during its period of significance, as roads of asphalt and concrete are in wide use across the state. Therefore, it is not eligible under Criterion 3. Also, the highway does not appear to have the potential to yield information important in local, regional, state or national history. It is the consultant's opinion that the highway segment is not eligible for the California Register under any criterion.

Field No. GSC-08 (Ward Drainage Ditch-Golden State Boulevard Segment)

This historic structure is a short (approximately 300 foot) segment of the Ward Drainage Canal that crosses under Golden State Boulevard several hundred feet south of Kamm Avenue. At this location, the boulevard and the railroad that parallels it are constructed on a considerable amount of fill (in excess of 15 feet) where both cross an old swale. The only structures visible from the boulevard are the west concrete portal of a syphon that emerges from the base of the railroad grade on its west side, a partially collapsed east-facing portal on the base of the boulevard's grade and a small rectangular concrete access shaft located in the median between the north- and south-bound lanes of the boulevard.

In California, the most common historic bridge type is that constructed of concrete. The use of reinforced concrete was introduced to the United States from Europe in the mid-1870s. Its first use in bridge work in the country was in 1889. The Ward Drainage Ditch structures date to 1942. Though more accurately termed "culvert," "syphon," or "tunnel," such reinforced concrete structures are more numerous in California than in other states. The structures that underlie Golden State Boulevard have only a weak association with bridges and similar structures during the rise of reinforced concrete construction in California. Therefore, it is the consultant's opinion that the culvert type structures described here are not eligible for the California Register under Criterion 1. The structures do not appear to be associated with a specific designer, engineer or contractor significant in California or local history, nor are the structures a particularly significant architectural type. Therefore, the structures do not appear eligible under Criterion 2. The culvert does not appear to represent innovation in design or materials, as culverts of concrete were already in common use in the state by the time of its period of construction. Therefore, the structures are not eligible under Criterion 3. Also, the culvert does not appear to have the potential to yield information important in local, regional, state or national history. It is the consultant's opinion that the structures located within the Golden State Corridor project area are not eligible for the California Register under any criterion.

Field No. GSC-09 (Foundations)

This minor historic archaeological resource located between Selma and Kingsburg consists of a filled concrete block retaining wall located on the Golden State Boulevard's western perimeter fence. In addition, the site includes an asphalt driveway, asphalt parking area, concrete foundations, piles of cut brush and tree limbs and a scatter of broken red clay bricks and exposed water and drain pipes. The structure(s) appear to have been razed within the past few years. The site was posted "No Trespassing," therefore a description of the site is incomplete, although the general site plan is clearly visible from the Golden State Boulevard right-of-way. As no visible artifacts (brick, iron pipes, etc.) appeared to have any significant antiquity, it is this consultant's opinion that the site is not old enough to have gained historical importance. Lacking any specific historical association, it is difficult to conclude that the site has more than a weak connection to the area's commercial enterprises. Therefore, it is the consultant's opinion that the site is not eligible for the California Register under any criterion of eligibility, nor does the site meet criteria as a "unique archaeological resource" under CEQA.

In summary, none of the identified cultural resources appear eligible for the California Register of Historical Resources or qualify as "unique archaeological resources" under CEQA.

Response

Historic Resources (a): The records search conducted at the Southern San Joaquin Valley Information Center indicated that 13 previous cultural resource studies have been conducted within a 150 foot radius of the project area. The information center identified eight cultural resources recorded within the records search radius; six of those cultural resources are actually

located within or immediately adjacent to Golden State Boulevard. However, a search of listings for the National Register of Historic Places, the California Register of Historical Resources, State Historic Landmarks, California Inventory of Historic Resources and the California Points of Historical Interest failed to identify any historical resources (cultural resources significant under one or more criteria of importance outlined in CEQA statutes, guidelines and advisories.

No prehistoric resources were encountered during the pedestrian field survey. Fourteen non-Native American historic resources were identified during the pedestrian field survey, however they do not appear to meet the eligibility requirements for listing on the California Register of Historic Resources. Therefore, no impacts to historic resources would occur.

A letter was sent to the NAHC requesting a check of the Sacred Lands Files. The check failed to reveal any properties listed as Sacred Lands. The NAHC did provide an extensive list of individuals and groups to contact regarding the property. Letters were sent to the individuals identified by the NAHC. One individual responded to the inquiry and the response has been included in the Cultural Resources Assessment. It is unlikely that the project will have any impact on Native American resources.

Although considered unlikely since there is no indication of any historic resources on the project site, subsurface construction activities associated with the proposed project could potentially damage or destroy previously undiscovered historic resources. This is considered a potentially significant impact. Mitigation is proposed requiring implementation of standard inadvertent discovery procedures to reduce potential impacts to previously undiscovered subsurface historic resources.

Conclusion: Project implementation would be *potentially significant.*

Mitigation Measure #3.5.1: Although there is no recorded evidence of historic or archaeological sites on the project site, there is the potential during project-related excavation and construction for the discovery of cultural resources. The project proponent shall incorporate into the construction contract(s) for the project a provision that includes the following measures:

- Before initiation of construction or ground-disturbing activities associated with the project, the project proponent for all project phases shall require all construction personnel to be alerted to the possibility of buried cultural resources, including historic, archeological and paleontological resources;

- The general contractor and its supervisory staff shall be responsible for monitoring the construction project for disturbance of cultural resources; and

- If a potentially significant historical, archaeological, or paleontological resource, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains or trash deposits are encountered during subsurface construction activities (i.e., trenching, grading), all construction activities within a 100-foot radius of the

identified potential resource shall cease until a qualified archaeologist evaluates the item for its significance and records the item on the appropriate State Department of Parks and Recreation (DPR) forms. The archaeologist shall determine whether the item requires further study. If, after the qualified archaeologist conducts appropriate technical analyses, the item is determined to be significant under California Environmental Quality Act, the archaeologist shall recommend feasible mitigation measures, which may include avoidance, preservation in place or other appropriate measure, as outlined in Public Resources Code section 21083.2. The lead agency or designee shall implement said measures.

The Fresno COG and/or lead agency or designee shall be provided with documentation that this mitigation measure has been implemented.

Effectiveness of Measure #3.5-1: Implementation of Mitigation Measure #3.5.1 would reduce the impact on historic resources to a level that is ***less than significant with mitigation incorporated***.

Archeological Resources (b): As indicated above, the records search and pedestrian survey did not identify any prehistoric resources. Nonetheless, the possibility exists that subsurface construction activities may encounter undiscovered archaeological resources. This would be a potentially significant impact. Implementation of mitigation measure #3.5-1 would require inadvertently discovery practices to be implemented should previously undiscovered archeological resources be located. As such, impacts to undiscovered archeological resources would be less than significant.

Conclusion: Project implementation would be ***potentially significant.***

Mitigation Measures: Implement Mitigation Measure #3.5-1.

Effectiveness of Measure #3.5-1: Implementation of Mitigation Measure #3.5.1 would reduce the impact on archeological resources to a level that is ***less than significant with mitigation incorporated***.

Paleontological Resources or Geologic Features (c): Known paleontological locations are somewhat rare in the project area, and no paleontological sites were identified. Correspondingly, the CRA did not find any evidence suggesting that paleontological or unique geologic resources would be present onsite. Nonetheless, the possibility exists that subsurface construction activities may encounter undiscovered paleontological resources. Accordingly, impacts would be potentially significant.

Conclusion: Project implementation would be ***potentially significant.***

Mitigation Measures: Implement Mitigation Measure #3.5-1.

Effectiveness of Measure #3.5-1: Implementation of Mitigation Measure #3.5.1 would reduce the impact on paleontological resources to a level that is ***less than significant with mitigation incorporated***.

Human Remains (d): The CRA did not identify any cemeteries or other sites anticipated to have the potential to include human remains within the vicinity of the Golden State Corridor project. As such, the CRA did not find any evidence suggesting that human remains would be present within the project area. Nonetheless, there is always the possibility that earth disturbing activities may uncover previously unknown human remains. Accordingly, this is a potentially significant impact.

Conclusion: Although considered unlikely, subsurface construction activities could cause an impact to previously undiscovered human burial sites. This would be a ***potentially significant impact***.

Mitigation Measure #3.5.2: The project proponent shall incorporate into the construction contract(s) for the project a provision that includes the following measure:

If ground-disturbing activities uncover previously unknown human remains, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed:

There shall be no further excavation or disturbance of the area where the human remains were found or within 50 feet of the find until the Fresno County or local agency Coroner is contacted. Duly authorized representatives of the Coroner shall be permitted onto the project site and shall take all actions consistent with Health and Safety Code Section 7050.5 and Government Code Section 27460, et seq. Excavation or disturbance of the area where the human remains were found or within 50 feet of the find shall not be permitted to re-commence until the Coroner determines that the remains are not subject to the provisions of law concerning investigation of the circumstances, manner, and cause of any death. If the Coroner determines the remains are Native American, the Coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98.

The Fresno COG and/or lead agency or designee shall be provided with documentation that this mitigation measure has been implemented.

Effectiveness of Mitigation Measure #3.5-2: Implementation of Mitigation Measure #3.5.2 will reduce the impact on burial sites to a level that is ***less than significant with mitigation incorporated***.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.6 GEOLOGY/SOILS				
Would the project:				
a) Expose people or structures to 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?	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction of collapse?	☐	☐	☒	☐
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?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems when sewers are not available for the disposal of wastewater?	☐	☐	☒	☐

Environmental Setting

SEISMIC HAZARDS

Fresno County and the cities of Fowler, Selma, and Kingsburg lie within a relatively seismically quiet area, and are not on the State Geological Survey's list of Cities and Counties affected by Alquist-Priolo Earthquake Fault Zones as of January 1, 2010 (California Geological Survey, January 2010). This means it does not contain areas subject to surface fault rupture.

The nearest faults to the project site are the Clovis Fault about 10 miles north/northwest near Clovis, the San Joaquin fault about 50 miles to the west/northwest near Los Banos, the San Andreas Fault about 50 miles to the southwest near Parkfield, and the Sierra Nevada Fault Zone on the east side of the Sierra Nevada Mountains about 75 miles to the east. The Coalinga area, about 50 miles to the west-southwest of the project site experienced an earthquake measuring 6.7 on the Richter scale (Rs) in 1983 on a previously unknown "blind" thrust fault. A "blind" fault is one that does not produce a surface rupture and therefore shows no evidence of its presence at the surface.

The Five Counties Seismic Safety Element places Fresno County and the cities of Fowler, Selma, and Kingsburg within the V1 Seismic Zone, characterized by a relatively thick section of sedimentary rock overlying a granitic basement. Primary hazards due to ground shaking are "low" because of the distance from seismic faults. Secondary hazards are as follows: landslides, minimal; subsidence/settlement, low to moderate; liquefaction, low; seiche, minimal. The Seismic Safety Element states that the Uniform Building Code, Zone II building standards should be adequate for normal facilities.

SOILS

The United States Department of Agriculture Natural Resources Conservation Service (NRCS) indicates that 14 different soil types underlie the project site. The soil properties are summarized in the table below.

Response

Seismic Effects (a-i through a-iv):

Fault Rupture (a-i): The project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone. Since no known surface expression of active faults is believed to cross the site, fault rupture through the site is not anticipated. No impacts would occur.

Table 3.6-1
Soil Characteristics Summary

Soil	Soil Surface Texture	Drainage Class	K-Factor*	pH	Percent Clay	Linear Extensibility (Percent)
DeA Delhi sand	Sand, 0 to 3 percent slopes	Somewhat excessively drained	0.2	6.7	2.5	1.5
DhA Delhi loamy sand	Loamy sand, 0 to 3 percent slopes	Somewhat excessively drained	0.24	6.7	2.5	1.5
DhB Delhi loamy sand	Loamy sand, 0 to 9 percent slopes	Somewhat excessively drained	0.24	6.7	2.5	1.5
Hc Hanford sandy loam	Sandy loam, 0 to 2 percent slopes	Well drained	0.32	6.7	12.5	1.5
Hsd Hesperia sandy loam	Sandy loam, 0 to 2 percent slopes	Well drained	0.32	7.7	12.3	1.5
Hsr Hesperia fine sandy loam	Fine sandy loam, 0 to 2 percent slopes	Well drained	0.32	7.7	12.5	1.5
Dm Dello loamy sand	Loamy sand, 0 to 2 percent slopes	Somewhat poorly drained	0.15	7.5	2.5	1.5
Hm Hanford fine sandy loam	Fine sandy loam, 0 to 2 percent slopes	Well drained	0.32	6.7	12.5	1.5
Hss Hesperia fine sandy loam, saline alkili	Fine sandy loam, 0 to 2 percent slopes	Well drained	0.2	8.5	12.3	1.5
DIA Delhi loamy sand	Loamy sand, 0 to 3 percent slopes	Somewhat excessively drained	0.24	6.9	10.7	1.5
Ho Hanford fine sandy loam	Fine sandy loam, 0 to 2 percent slopes	Well drained	0.32	6.7	17.4	1.5
TzbA Tujunga loamy sand	Loamy sand, 0 to 3 percent slopes	Somewhat excessively drained	0.17	6.7	2.5	1.5
PmB Pollasky sandy loam	Sandy loam, 2 to 9 percent slopes	Well drained	0.32	6.7	12.5	1.5
Hst Hesperia fine sandy loam, deep	Fine sandy loam, 0 to 2 percent slopes	Well drained	0.32	7.5	11.8	1.5

Notes:
*K-Factor = Measurement of soil erodibility: values less than 0.25 indicate low erosion potential; values of 0.25 to 0.40 indicate moderate erosion potential; values ranging from 0.40 to 0.69 indicate high erosion potential.
Linear Extensibility = Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.
Soil pH is a measure of the acidity or basicity in soils. pH is defined as the negative logarithm (base 10) of the molar concentration of dissolved hydronium ions (H_3O^+). It ranges from 0 to 14, with 0 being most acidic, 14 being highly basic, and 7 being neutral.
Source: USDA NRCS, 2008

Strong Ground Shaking (a-ii): The Fresno County General Plan Background Report identified the project site as being within the Uniform Building Code Seismic Zone 3. The California Geological Survey maintains a web-based computer model that estimates probabilistic seismic ground motions for any location with California. The computer model estimates the "Design Basis Earthquake" ground motion, which is defined as the peak ground acceleration with a 10-percent chance of exceedance in 50 years (475-year return period). For an alluvium soil type, the project site's estimated peak ground acceleration is approximately 0.177g.

Although the project site is located in an area of low seismic activity, the faults and fault systems that lie along the eastern and western boundaries of Fresno County, as well as other regional faults, have the potential to produce high-magnitude earthquakes throughout the County. The project site is located on alluvial deposits, which tend to experience greater ground shaking intensities than areas located on hard rock. However, the distance to the faults that are the expected sources of the shaking would be sufficiently great that the effects should be minimal.

Project construction would be subject to roadway design standards and specifications, such as Caltrans, Fresno County or the individual cities Public Works departments. Design standards and specifications are established to ensure that project construction meets all applicable seismic design standards for California. Seismic design standards account for peak ground acceleration, soil profile, and other site conditions and they establish corresponding design standards intended to protect public safety and minimize property damage. Compliance with the regulatory requirements of the design standards and specifications would reduce potential ground shaking impacts to a level of less than significant.

Seismic Related Ground Failure (including Liquefaction) (a-iii): As reported in a recent Groundwater Conditions study prepared by the City of Selma for their General Plan Update, groundwater levels in the project area are reported to be 46 to 60 feet below ground. The NRCS soil survey for the project area indicates that the soil that underlies the project area is composed of loamy sand, sand, silty clay, and silt and is suitable for roadway developments. Additionally, the project site is not located in area identified by the Fresno County General Plan Background Report nor any of the cities respective General Plans as an area subject to liquefaction. These characteristics indicate that the project site has a low susceptibility to liquefaction and liquefaction-related phenomena.

As stated above, project construction would be subject to design standards and specifications. Compliance with the regulatory requirements would reduce potential ground failure impacts to a level of less than significant.

Conclusion: There would be ***no impact*** from fault rupture. The soils of the site would accommodate the project. Any impact from ground shaking and liquefaction would be mitigated to a ***less than significant level*** through compliance with design standards and specifications.

Mitigation Measures: None are required.

Landslides (a-iv): According to the Fresno County General Plan Background Report, the valley floor area of the County is not an area for landslide hazards. There are no substantial slopes on or near the project site. Therefore, the opportunity for slope failure in response to the long-term geologic cycle of uplift, mass wasting, and difference of slopes is unlikely. Project site conditions preclude the possibility of earthquake-induced landsliding onsite. No impacts would occur.

Conclusion: There would be ***no impact***.

Mitigation Measures: None are required.

Soil Erosion (b): The K-factors for the soils for the project site indicate that the soils have low to moderate erosion potential. However, construction activities associated with the project would involve vegetation removal, grading, and excavation activities that could expose barren soils to sources of wind or water, resulting in the potential for erosion and sedimentation on and off the project site. National Pollutant Discharge Elimination System (NPDES) stormwater permitting programs regulate stormwater quality from construction sites, which includes erosion and sedimentation. Under the NPDES permitting program, the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) is required for construction activities that would disturb an area of one acre or more. The SWPPP must identify potential sources of erosion or sedimentation that may be reasonably expected to affect the quality of stormwater discharges as well as identify and implement Best Management Practices (BMPs) that ensure the reduction of these pollutants during stormwater discharges. Typical BMPs intended to control erosion include sand bags, detention basins, silt fencing, storm drain inlet protection, street sweeping, and monitoring of water bodies. The implementation of an SWPPP and its associated BMPs would reduce potential erosion impacts to a level of less than significant.

Conclusion: Construction activities associated with the project would be reduced to a ***less than significant*** level after compliance with regulatory requirements.

Mitigation Measures: None are required.

Unstable Geologic Units (c): The NRCS soil report indicates that the project site soils are composed of the Delhi, Dello, Hanford, Hesperia, Pollasky, and Tujunga soil associations, common in the valley floor. The soils are generally deep, and consist of sand, sandy loam and fine sandy loam. The majority of the soils are well-drained with depth to restrictive feature of over 80 inches and low to moderate erosion potential. There are no known unstable geologic units or soils (e.g., artificial fill) present on the project site. The project site currently supports the existing Golden State Boulevard. Roadway and intersection improvements proposed by the project would require soil engineering in accordance with California and local agency design standards and specifications. Compliance with regulatory standards would ensure that any impacts from unstable geologic units are reduced to a less than significant level.

Conclusion: The soils of the site will accommodate the project. Any impact from unstable geologic units would be ***less than significant*** through compliance with regulatory measures such as design standards and specifications.

Mitigation Measures: None are required.

Expansive Soil Hazards (d): The NRCS soil report indicates that the project site soils are composed of the Delhi, Dello, Hanford, Hesperia, Pollasky, and Tujunga soil associations, common in the valley floor. These soils have low-clay content and possess low shrink-swell properties and are not considered expansive. Therefore, the development of the project would not expose persons or structures to hazards associated with shrinking and swelling of expansive soils.

Conclusion: There would be ***no impact***.

Mitigation Measures: None are required.

Wastewater Disposal (e): No permanent wastewater facilities using septic tanks or alternative wastewater disposal systems would be required by the project. During construction, portable sanitation facilities (portable toilets) may be used. Sanitation waste would be disposed of in accordance with sanitation waste management practices at an approved wastewater treatment plant.

Conclusion: There would be ***less than significant impacts*** to wastewater disposal.

Mitigation Measures: None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.7 GREENHOUSE GAS EMISSIONS:				
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☒	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☒	☐	☐

Environmental Setting

Briefly stated, climate change is a change in the average weather of the earth that may be measured by changes in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes that have occurred in the past, such as during previous ice ages. Many of the concerns regarding climate change use this data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

Gases that trap heat in the atmosphere are greenhouse gases (GHGs). The effect is analogous to the way a greenhouse retains heat. Common GHGs include water vapor, carbon dioxide, methane, nitrous oxides, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and aerosols. Natural processes and human activities emit GHGs. The presence of GHGs in the atmosphere affects the earth's temperature. Without the natural heat trapping effect of GHG, the earth's surface would be about 34°C cooler, However, it is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Massachusetts v. EPA (Supreme Court Case 05-1120) was argued before the United States Supreme Court on November 29, 2006, in which it was petitioned that EPA regulate four GHGs, including carbon dioxide, under Section 202(a)(1) of the Clean Air Act. A decision was made on April 2, 2007, in which the Supreme Court held that petitioners have a standing to challenge the EPA and that the EPA has statutory authority to regulate emissions of GHGs from new motor vehicles. On December 7, 2009, the EPA Administrator signed two distinct findings regarding greenhouse gases under Section 202(a) of the Clean Air Act:

1. Current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.

2. The combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.

On April 1, 2010, EPA and the Department of Transportation's National Highway Safety Administration announced a joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States. The first phase of the national program would apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards would cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the National Highway Safety Administration will now begin working on a second-phase joint rulemaking to establish national standards for light-duty vehicles for model years 2017 and beyond.

There have been significant legislative and regulatory activities that directly and indirectly affect climate change and GHGs in California. The primary climate change legislation in California is AB 32, the California Global Warming Solutions Act of 2006. AB 32 focuses on reducing GHG emissions in California. GHGs, as defined under AB 32, include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. The California Air Resources Board (CARB) is the state agency charged with monitoring and regulating sources of emissions of GHGs that cause global warming in order to reduce emissions of GHGs.

The CARB Governing Board approved the 1990 GHG emissions level of 427 million metric tons of CO_2 equivalent ($MMTCO_2e$) on December 6, 2007. Therefore, in 2020, annual emissions in California are required to be at or below 427 $MMTCO_2e$.

CARB approved the Climate Change Scoping Plan (Scoping Plan) in December 2008. The Scoping Plan "proposes a comprehensive set of actions designed to reduce overall GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health." The measures in the Scoping Plan will be emplaced through rule development at the CARB and other agencies, and are expected to be in place by 2012.

As noted in the Scoping Plan, the projected total business-as-usual emissions for year 2020 (estimated as 596 $MMTCO_2e$) must be reduced approximately 30 percent to achieve the CARB's approved 2020 emission target of 427 $MMTCO_2e$. The Scoping Plan identifies recommended

measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors.

To assist Lead Agencies, project proponents, permit applicants, and interested parties in assessing and reducing the impacts of project specific GHG emissions on global climate change, the San Joaquin Valley Air Pollution Control District (SJVAPCD) has adopted the guidance: *"Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA"* and the policy: *"District Policy – Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency"*. The guidance and policy rely on the use of performance based standards, otherwise known as Best Performance Standards (BPS) to assess significance of project specific greenhouse gas emissions on global climate change during the environmental review process, as required by CEQA. Use of BPS is a method of streamlining the CEQA process of determining significance and is not a required emission reduction measure. Projects implementing BPS would be determined to have a less than cumulatively significant impact. Otherwise, demonstration of a 29 percent reduction in GHG emissions, from business-as-usual, is required to determine that a project would have a less than cumulatively significant impact. The guidance does not limit a lead agency's authority in establishing its own process and guidance for determining significance of project related impacts on global climate change. The guidance document, however, did not address determining significance for temporary greenhouse gas emissions, such as construction of the project.

Response

This section describes the potential effects from project implementation on the site and its surrounding area. VRPA Technologies, Inc. performed a Climate Change Assessment for the project, which included construction and operational greenhouse gas modeling. The Climate Change Assessment and modeling output are provided in Appendix F.

Greenhouse Gases (a): The project will contribute to climate change impacts through its contribution of GHGs. The project will emit greenhouse gases during construction and exhaust of vehicles during operation.

PROJECT INVENTORY OF GREENHOUSE GAS EMISSIONS

Construction

The project would emit greenhouse gases from upstream emission sources (the manufacture of building materials such as cement) and direct sources (combustion of fuels from worker vehicles and construction equipment). An upstream emission source refers to emissions that were generated during the manufacture of products to be used for construction of the project. Upstream emission sources for the project include but are not limited to the following: emissions from the manufacture of cement, emissions from the manufacture of steel, and/or emissions from the transportation of building materials. The upstream emissions were not estimated because CEQA does not require a "lifecycle" analysis approach to determine the significance of potential environmental impacts.

GHG emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include emissions produced as a result of material processing, emissions produced by on-site construction equipment, and emissions arising from traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases. In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events. Exhaust emissions during construction were estimated using the Sacramento Metropolitan Air Quality Management's Road Construction Model, Version 6.3.2. GHG emissions for the project were estimated based upon the assumptions described in Impact 3.3 Air Quality. Results of the analysis are shown in Table 3.7-1.

Table 3.7-1
Project Construction Greenhouse Gas Estimate

Summary Report	CO_2 (tons)	$MTCO_2e$
Total Construction Emissions	5,321.8	4,827
Construction Emissions Per Year	1,773.9	1,609

Notes: $MTCO_2e$ = metric tons of carbon dioxide equivalent, converted from tons by multiplying by 0.9072

Source: VRPA Technologies, Inc., 2011(b)

Operational

Operational GHG emissions from the project are generated by mobile source (vehicle) emissions from the project site. The project itself would not generate vehicle trips, but would accommodate existing and future traffic accounted for in regional inventories.

The effect of the project on operational GHG emissions was calculated based on traffic data developed for the project's traffic study (VRPA Technologies, Inc., June 2011). The calculations are shown in Table 3.7-2 and are based on analysis using the CT-EMFAC Model, Version 2.6. Emissions were calculated for the PM peak hour for each study roadway segment included in the Traffic Technical Report. The analysis focused on the PM peak hour because that is when Golden State Boulevard is expected to experience the highest traffic volume, and potentially experience the most congestion.

Table 3.7-2
Comparison of Peak Hour CO_2 Emissions

	Existing		Future Year 2035	
Golden State Blvd Segment	**No Build**	**Build**	**No Build**	**Build**
Sierra St to Draper St	0.061	0.061	0.112	0.112
Mountain View Ave to Sierra St	0.447	0.447	0.821	0.821
2nd St to Mountain View Ave	0.407	0.407	0.746	0.746
Thompson Ave to 2nd St	0.162	0.162	0.288	0.288
Floral Ave to Thompson Ave	0.166	0.166	0.312	0.312
Highland Ave to Floral Ave	0.094	0.094	0.172	0.172
Manning Ave to Highland Ave	0.722	0.722*	1.328	1.328*
Merced St to Manning Ave	0.532	0.532*	0.973	0.973*
Adams Ave to Merced St	0.088	0.088	0.161	0.161

Notes:
* Although the analysis indicates CO_2 emissions would be the same for both the Build and No Build conditions, project improvements at the study intersections are anticipated to improve traffic flow and efficiency of the roadway, which would decrease idling and congestion, thereby reducing CO_2 emissions.

Source: VRPA Technologies, Inc., 2011(b)

Table 3.7-2 indicates that although CO_2 emissions are projected to increase when comparing Future Year 2035 and Existing conditions, emissions are expected to be the same for both No Build and Build scenarios. This is due to the fact that the analysis of CO_2 emissions is based on traffic volumes, which are not expected to differ between the No Build and Build conditions. However, it should be noted that the project is expected to increase the efficiency of the roadway and may attract rerouted trips from elsewhere in the transportation network. This would result in an increase in VMT along the highway corridor and potentially an increase in CO_2 emissions. Nonetheless, the increase in emissions along the highway corridor would correspond to a decrease in emissions elsewhere within the transportation system.

It should also be noted that this analysis only looks at emissions within the project study area and not to the regional transportation network where the changes in GHG emissions resulting from the project would be too small to evaluate. The CO_2 emissions shown in Table 3.7-2 are only useful for a comparison between scenarios. The numbers are not necessarily an accurate reflection of what the true CO_2 emissions will be because CO_2 emissions are dependent on other factors that are not part of the model. However, the results do provide evidence to support the conclusion that the project would not result in a substantial increase in CO_2 emissions beyond what is attributed to growth factors.

As stated previously, the project was included in the 2011 RTP. The Fresno COG used the best available information to determine whether the 2011 RTP was consistent with the State's achievement of the AB 32 GHG emission reductions. In light of the uncertainty in the regulatory and technological environment, the 2011 RTP incorporated all feasible mitigation measures to

reduce the impacts of the proposed RTP projects on global climate change. These measures include:

- Prepare and implement a transportation management plan (TMP). Among other benefits, the TMP will reduce traffic congestion during construction;

- Strictly prohibit unnecessary idling of internal combustion engines;

- Implement intelligent transportation systems (ITS) to help manage the efficiency of the corridor;

- Provide improved mass transit that will reduce the demand of automobiles along the corridor;

- Provide landscaping along the corridor that will reduce surface warming, and through photosynthesis, decrease CO_2; and

- Incorporate the use of energy efficient lighting, such as LED traffic signals. While LED bulbs (or balls) are more costly than incandescent bulbs, the LEDs last five to six years, compared to the one year average lifespan of the incandescent bulbs previously used. The LED bulbs themselves consume 10 percent of the electricity of traditional lights, which will also help reduce CO_2 emissions.

The RTP Environmental Impact Report (EIR) included a requirement that RTP projects incorporate all feasible measures identified in the EIR and the SJVAPCD's Best Performance Standards for reducing GHG. The RTP also incorporates numerous policies, action items and funding priorities to develop and improve alternative modes of transportation throughout the County and the incorporated cities in Fresno County.

The measures included in the RTP are consistent with the GHG mitigation approaches outlined by the California Attorney General's Office in the May 21, 2008 report titled: *"The California Environmental Quality Act, Addressing Global Warming Impacts at the Local Agency Level: Global Warming Measures"*. The mitigation measures and the policies and action items included in the 2011 RTP update are also consistent with the May 29, 2008 Addendum to the 2007 Regional Transportation Guidelines prepared by the California Transportation Commission: *"Addressing Climate Change and Greenhouse Gas Emissions During the RTP Process"*. The RTP mitigation measures have been incorporated into the project as project-specific mitigation measures.

Although the SJVAPCD released its final staff report on addressing GHGs in CEQA documents, this report does not specifically address the significance of construction emissions. Instead, it addresses large, stationary sources of GHG emissions, such as those from large industrial equipment (boilers, steam generators) and power plants. The SJVAPCD does not have specific guidelines that would apply to the proposed project. It should be noted that AB 32 requires that emissions within the State be reduced to 1990 levels by the year 2020. Construction emissions would mainly occur prior to 2020; therefore, construction-generated GHGs would be considered to have a less than significant impact. Furthermore, there would not be an increase in GHG

emissions from the project when compared to the No Build conditions in the future; therefore, the project's operational emissions would not have a less than significant impact on the environment. However, the RTP EIR concluded that local transportation GHG emissions within Fresno County combined with emissions throughout California and the world, could contribute to a cumulative impact.

Conclusion: Project-specific impacts would be ***less than significant***. However, local transportation GHG emissions within Fresno County combined with emissions throughout California and the world, could contribute to a cumulative impact. As such, the project, as part of the RTP would have ***potentially significant*** GHG impact.

Mitigation Measure #3.7-1: Prior to issuance of construction and/or encroachment permits, the project proponent shall incorporate the GHG reduction measures outlined below. The lead agency or designee shall be responsible for reviewing and approving the final design plans.

- Ensure that construction equipment is properly sized for the task.
- Properly maintain construction equipment.
- Strictly prohibit unnecessary idling of internal combustion engines.
- Provide landscaping along the corridor that will reduce surface warming, and through photosynthesis, decrease CO_2.
- Incorporate the use of energy efficient lighting, such as LED traffic signals. While LED bulbs (or balls) are more costly than incandescent bulbs, the LEDs last five to six years, compared to the one year average lifespan of the incandescent bulbs previously used. The LED bulbs themselves consume 10 percent of the electricity of traditional lights, which will also help reduce CO_2 emissions.

The Fresno COG and/or lead agency or designee shall be provided with documentation that this mitigation measure has been implemented.

Effectiveness of Mitigation Measure #3.7-1: An increase in GHG emissions is not anticipated with construction of the proposed project when compared to the No Build conditions. Additionally, all feasible GHG reduction measures have been incorporated for a project of this nature. As such, the project's impact would be ***less than significant with mitigation incorporated***.

Conflict with Plans (b): There is no applicable local plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, the plan adopted for the purpose of reducing the emissions of GHGs applicable to the proposed project is CARB's approved Scoping Plan, which will be used to determine significance for this criterion. Consistency with AB 32 is the proposed threshold to assess the project's significance with respect to GHG emissions.

The CARB approved the Climate Change Scoping Plan in December 2008. The Scoping Plan outlines the State's strategy to achieve the 2020 greenhouse gas emissions limit. The Scoping Plan "proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health". The measures in the Scoping Plan are currently under development and are anticipated to be in place by 2012. Several sources have provided GHG reduction measures that can assist projects in meeting AB 32 goals. The project's consistency with applicable AB 32 measures and other applicable GHG reduction measures is presented in Table 3.7-3.

Table 3.7-3
Consistency with Applicable GHG Reduction Measures

Suggested Greenhouse Gas Reduction Measure	Project Consistency
Energy Efficiency	
Replace traffic lights, street lights, and other electrical uses to energy efficient bulbs and appliance. (OPR 2008)	Consistent with Mitigation Measure 3.7-1
Water Conservation and Energy Efficiency	
Create water-efficient landscapes (AG 2008) (CARB 2008)	Consistent with project design guidelines and Mitigation Measure 3.9-1
Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls (AG 2008) (CARB 2008)	Consistent with Mitigation Measure 3.9-1 (see Section 3.9 Hydrology for further information)
Solid Waste Measures	
Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard). (AG 2008) (CARB 2008)	Consistent. The project would reuse and recycle construction and demolition waste in compliance with state, federal, and local regulations.
Land Use and Transportation Measures	
Create bicycle lanes and walking paths directed to the location of schools, parks and other destination points. (OPR 2008)	Consistent. One of the key objectives of the project is to provide opportunities for improved bicycle and pedestrian facilities consistent with the 2011 RTP.
Implement street improvements that are designed to relieve pressure on a region's most congested roadways and intersections. (OPR 2008)	Consistent. The project will be improving level of service, thereby relieving congestion on roadways.

Source for Measures: CARB Scoping Plan, (CARB 2008), California Attorney General (AG 2008), Office of Planning and Research (OPR 2008)

Source for Consistency Determination: Quad Knopf, 2011

As discussed in the Impact (a) above, the proposed project would not result in a significant generation of GHG emissions from the project after the incorporation of mitigation measures. However, as shown above, the project would not be consistent with AB 32 and applicable GHG

reduction measures without the incorporation of mitigation measures. Therefore the project's impact is potentially significant.

Conclusion: Without the incorporation of mitigation measures, the project would not be implementing all applicable GHG reduction measures and would not be consistent with AB 32, impacts would be ***potentially significant***.

Mitigation Measures: Implement Mitigation Measures #3.7-1 and #3.9-1 (this measure involves compliance with the Model Water Conservation Ordinance; see Section 3.9 Hydrology for further information).

Effectiveness of Mitigation Measures: With the implementation of mitigation, the project would be consistent with AB 32 and would not create a conflict. Impacts would be ***less than significant with mitigation incorporated***.

3.8 HAZARDS/HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Environmental Setting

Hazardous materials, as defined by the California Code of Regulations, are substances with certain physical properties that could pose a substantial present or future hazard to human health or the environment when improperly handled, disposed, or otherwise managed. Hazardous materials are grouped into the following four categories, based on their properties:

Toxic - causes human health effects
Ignitable - has the ability to burn
Corrosive - causes severe burns or damage to materials
Reactive - causes explosions or generates toxic gases

A hazardous waste is any hazardous material that is discarded, abandoned, or slated to be recycled. The criteria that define a material as hazardous also define a waste as hazardous. If improperly handled, hazardous materials and hazardous waste can result in public health hazards if released into the soil or groundwater or through airborne releases in vapors, fumes, or dust. Soil and groundwater having concentrations of hazardous constituents higher than specific regulatory levels must be handled and disposed of as hazardous waste when excavated or pumped from an aquifer. The California Code of Regulations, Title 22, Sections 66261.20-24 contains technical descriptions of toxic characteristics that could cause soil or groundwater to be classified as hazardous waste.

Response

Hazardous Materials (a, b): Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. The use of such materials would be considered minimal and would not require these materials to be stored in bulk form. As such, the project would not create a significant hazard to the public through the routine use, transport, or disposal of hazardous materials. Since hazardous materials will not be stored in bulk form, no impacts are expected regarding potential upset and accidental conditions involving the release of hazardous materials into the environment. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that

human health and the environment are not exposed to hazardous materials. In addition, the project applicant would be required to implement a Stormwater Pollution Prevention Plan during construction activities to prevent contaminated runoff from leaving the project site. Therefore, no significant impacts would occur during construction activities.

Conclusion: With the compliance of Federal and state laws, this impact will be reduced to ***less than significant***.

Mitigation Measures: None are required.

Exposure of Schools to Hazardous Materials (c): Golden State Boulevard is located within one-quarter mile of existing schools in the cities of Fowler, Selma, and Kingsburg. The schools include: Fremont Elementary and Fowler Preschool in Fowler; Heartland High (Continuation), Gospel Light Baptist Academy, Early Childhood Discovery Center, and George Washington Elementary in Selma; Washington Elementary and Roosevelt Elementary in Kingsburg. Some of the roadway and intersection improvements proposed by the project would occur within one-quarter mile of the school sites. However, as discussed in Section 3.3, Air Quality, the project would not emit air pollutants at levels that would exceed health and safety exposure thresholds. In addition, as discussed in Hazard Materials (a, b), the project would not be classified as a large quantity user of hazardous materials or engage in potentially hazardous activities (e.g., bulk material storage, chemical processing, refining, etc.). For these reasons, it can be concluded that the project would not expose the schools to unacceptable levels of risk.

Conclusion: Impacts would be ***less than significant***.

Mitigation Measures: None are required.

Hazardous Materials Site (d): The proposed project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As such, no impacts would occur that would create a significant hazard to the public or the environment.

Conclusion: There would be ***no impact***.

Mitigation Measures: None are required.

Airport Land Use (e, f): There are no public airports within two miles of the proposed project site; however, within the City of Selma there are two private airports which are available for public use. The Selma Aerodome is located north of Floral Avenue and West of DeWolf Avenue adjacent to Rockwell Pond on the west side of town. The Quinn Airport is located between State Route 99 and Golden State Boulevard south of East Dinuba Avenue. A portion of the project improvements within the City of Selma would occur within the secondary review area airport overlay zone. The project would not construct any structures that would create an aviation hazard. The project would be consistent with the Fresno County Airport Land Use Policy Plan. Impacts would be less than significant.

Conclusion: The project would not create aviation safety hazards for persons residing or working in the project vicinity. Impacts would be ***less than significant***.

Mitigation Measures: None are required.

Adopted Emergency Response Plan or Emergency Evacuation Plan (g): Temporary construction activity would be expected to create temporary delays in traffic. Such delays would be typical for a construction project of this nature and would not be expected to interfere with an adopted emergency response plan or emergency evacuation plan.

Conclusion: Impacts would be ***less than significant***.

Mitigation Measures: None are required.

Wildfires (h): The project site is located within the communities of Fowler, Selma, Kingsburg and unincorporated Fresno County. The undeveloped areas surrounding the project site contain cultivated agricultural fields. As such, wildland fire risks are extremely low. According to the California Department of Forestry and Fire Protection, the project site lies in an urbanized developed area outside of wildland fire hazard zones. Therefore, development of the project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. No impacts would occur.

Conclusion: There would be ***no impact***.

Mitigation Measures: None are required.

3.9 HYDROLOGY/WATER QUALITY

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☒	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☒	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☒	☐	☐
e) 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?	☐	☒	☐	☐
f) Otherwise substantially degrade water quality?	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Place housing within a 100-year flood hazard area as mapped on a federal flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Environmental Setting

SURFACE WATER

The project site lies within Fresno County. Surface water systems in Fresno County are generally characterized by a series of reservoirs that collect and store snowmelt in the upper elevations of the Sierra. These include Pine Flat Dam on the Kings River and Friant and Mendota Dams on the San Joaquin River. These and other lakes and reservoirs within the San Joaquin Valley have been developed over the years by Southern California Edison Company, the Army Corps of Engineers, and Pacific Gas and Electric Company. Water stored in the reservoirs is typically used for hydroelectric production then released into natural rivers. Most of the water is then captured into lower elevation reservoirs in the foothills and stored for transmission in irrigation canals. These facilities are owned and operated by a number of public agencies including the U.S. Bureau of Reclamation, Southern California Edison, and several local irrigation and water districts. The water supply varies, however, depending on the area and climate. Many communities within the San Joaquin Valley must supplement natural surface water with water diverted from other sources. A major source is the State Water Project's California Aqueduct.

According to the County of Fresno, surface water in Fresno County is typically of good quality for agricultural irrigation and municipal and industrial uses. The concentration of total dissolved solids (TSDs) is typically low and harmful levels of trace elements are not present. Accordingly, conventional water treatment processes are used.

GROUNDWATER

The project site lies within the Tulare Lake Hydrologic Region, a closed drainage basin at the southern end of the San Joaquin Valley Basin. The region has 12 distinct groundwater and seven sub-basins of the San Joaquin Valley Groundwater Basin. The site lies within the Kings Groundwater Subbasin.

Water levels in most of the subbasins within the San Joaquin Valley Groundwater Basin, including the Kings Subbasin, have generally declined as users increase their reliance on groundwater. During dry years when surface water supplies are reduced, groundwater usage increases for agricultural customers with surface and groundwater options. The groundwater basin has not been replenished at the same rate as extraction, leading to overdraft conditions.

Groundwater naturally contains pollutants, which occur when water contacts rocks and soils and carries away dissolved solids. However, human activities further impact water quality by affecting the quantity and quality of water that eventually percolates back into the soil and recharges groundwater sources. The quality of groundwater is affected by three main factors in Fresno County: agricultural pollution, industrial pollution, and urban pollution in the form of stormwater runoff. As with surface water contamination, stormwater that washes over transportation facilities carries urban pollutants. When this untreated effluent percolates into the soil, some contaminants are filtered out before reaching the groundwater aquifer. Reductions in permeable surfaces limit percolation and associated filtration that treat these contaminants.

DRAINAGE PATTERNS

Stormwater runoff from the project site within the cities of Fowler, Selma, and Kingsburg is diverted into storm drain systems that funnel these effluents to the network of surface waters. In the non-urban unincorporated areas of Fresno County, drainage of surface waters follows natural drainage patterns.

RECYCLED WATER

In the interest of implementing sustainability features for the Golden State Corridor revitalization and corridor beautification the potential for recycled water usage was investigated. Quad Knopf, Inc. prepared a technical report "Recycled Water Usage" as part of the Golden State Corridor project. The technical report investigated the feasibility of using Selma-Kingsburg-Fowler Sanitation District (SKF) reclaimed wastewater for irrigation purposes. The report determined that while the use of recycled water is technically feasible, it would be cost-prohibitive given the need to upgrade wastewater treatment and construct distribution piping facilities to convey the treated recycled water to and along the Corridor. The cost for conventional tertiary treatment upgrades to the SKF plant would be substantial and are estimated to range from 7 to 10 million dollars. The cost for tertiary level treatment could be reduced by utilizing Soil Aquifer Treatment combined with shallow groundwater extraction wells to a depth of approximately 200 feet. The source of the treated water is the SKF facilities located on the south end of the corridor, as such an extensive distribution system would be required. The cost for the piping distribution system is roughly estimated to range between 15 and 20 million dollars. In order to

serve the communities more efficiently, the report suggests investigating water exchange possibilities where surface water could be traded along the Corridor for recycled water downstream at the SKF plant. Consolidated Irrigation District (CID) has a system of canals for surface water delivery that could afford the opportunity for exchanging water upstream to be used along the corridor while Recycled Water is deposited back into the CID distribution system downstream near the plant facilities. In addition, CID has indicated that increasing ground water recharge and the ability to capture storm water flows during peak wet weather years could also be included in the discussions regarding the proposed water exchange agreements.

The technical reports describes the following components as being necessary for developing a feasible approach to implementing recycled water usage.

- Consider Soil Aquifer Treatment in order to meet the tertiary treatment standard that allows the most uses and represents the best public health and safety interest. Soil aquifer treatment would provide the lowest cost treatment of recycled water.

- Phase the recycled water system in a way that has the lowest cost distribution system for recycled water in order to deliver water at an economical cost to customers. There are a number of users near the SKF plant that would be a good fit for recycled water. Caltrans, agricultural growers and the City of Kingsburg are all located near the SKF plant and would be reasonable candidates as first phase customers. Consider industrial waste water available along the corridor as an alternate source of recycled water for added water conservation.

- Additional uses of recycled water along the Golden State corridor could follow and may become more feasible if the distribution costs can be mitigated by accessing water along the corridor through water exchange agreements with Consolidated Irrigation District.

As the project is developed, the technical report recommendations will be considered and implemented to the extent feasible.

Response

Water Quality (a, f): Potential short-term impacts to surface waters may occur during construction, mainly from exposure of loose soil during construction-related activities, such as grading and excavation. Suspended solids, dissolved solids, and organic pollutants may enter surface water bodies while soils are disturbed and dust is generated. In addition, construction activities have the potential to generate waste materials (concrete, metal, rubble, etc) or discharge pollutants to surface waters from construction wastes and fuel spills/leaks.

To mitigate these potential effects, required erosion and pollutant control measures would be implemented in compliance with the NPDES General Permit prior to commencement of construction. Provisions of the General Permit require a site-specific plan to be developed that would address each construction component of the project. A SWPPP would be developed prior to any ground disturbance at the project site and would include practices to reduce erosion and surface water contamination during construction. The SWPPP would identify Best Management Practices (BMPs) to address erosion and discharge of construction pollutants as well as the

location of such control measures.

Water quality BMPs identified in the SWPPP may include, but would not be limited to the following:

- Temporary erosion control measures (such as silt fences, staked straw bales, and temporary revegetation) shall be employed for disturbed areas. No disturbed surfaces will be left without erosion control measures in place during the winter and spring months;

- Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures;

- A spill prevention and countermeasure plan shall be developed which will identify proper storage, collection, and disposal measures for potential pollutants (such as fuel, fertilizers, pesticides, etc.) used onsite. The plan will also require the proper storage, handling, use, and disposal of petroleum products;

- Construction activities shall be scheduled to minimize land disturbance during peak runoff periods and to the immediate area required for construction. Soil conservation practices shall be completed during the fall or late winter to reduce erosion during spring runoff. Existing vegetation will be retained where possible. To the extent feasible, grading activities shall be limited to the immediate area required for construction;

- Sediment shall be contained when conditions are too extreme for treatment by surface protection. Temporary sediment traps, filter fabric fences, inlet protectors vegetative filters and buffers, or settling basins shall be used to detain runoff water long enough for sediment particles to settle out. Construction materials, including topsoil and chemicals, shall be stored, covered, and isolated to prevent runoff losses and contamination of groundwater;

- Topsoil removed during construction shall be carefully stored and treated as an important resource. Berms shall be placed around topsoil stockpiles to prevent runoff during storm events;

- Establish fuel and vehicle maintenance areas away from all drainage courses and design these areas to control runoff;

- Disturbed areas will be revegetated after completion of construction activities;

- All necessary permits and approvals shall be obtained;

- Sanitary facilities shall be provided for construction workers; and

- Hazardous materials shall be stored in appropriate and approved containers, maintaining required clearances, and handling materials in accordance with the applicable federal, state and/or local regulatory agency protocols.

Conclusion: Construction activities associated with the project have the potential to cause significant impacts to water quality, however compliance with regulatory requirements would reduce impacts to ***less than significant***.

Mitigation Measures: None are required.

Groundwater (b): The project would create minimal additional impermeable surfaces through the addition of roadway and intersection improvements, but would not significantly alter groundwater recharge and result in a net deficit or lowering of the local groundwater table. The project would require minimal amounts of water for dust control purposes during construction. All water required during construction of the project would be imported to the project site from adjacent sources with existing entitlements. During operations, the project would require irrigation water for landscaping improvements. Potable water supplied by the cities of Fowler, Selma, and Kingsburg, and the County of Fresno would be the source of the irrigation water. The cities and County rely on groundwater from the Kings Groundwater Subbasin. The groundwater basin is classified as being in a state of overdraft by California Department of Water Resources because groundwater pumping has historically exceeded recharge. The project would implement low impact design techniques and water conservation measures identified as Mitigation Measure #3.9-1 and #3.9-2. Additionally, the project will consider the implementation of the "Recycled Water Usage Final Technical Report" recommendations as applicable and to the extent feasible. With the implementation of Mitigation Measure #3.9-1 and #3.9-2, potential impacts to groundwater supplies would be reduced to a less than significant level.

Conclusion: Implementation of the project would exacerbate groundwater overdraft conditions and cause a potentially significant impact to groundwater supplies.

Mitigation Measure #3.9-1: Prior to issuance of construction and encroachment permits for landscaping, the project proponent shall submit landscaping plans to the lead agency or designee for review and approval demonstrating that landscaping will comply with the requirements in the State of California Updated Model Water Efficient Landscape Ordinance (AB 1881). The landscaping plans shall identify outdoor irrigation water conservation measures, such as but not limited to:

- Drought-resistant vegetation;

- Irrigation systems employing the following features:

    - Drip irrigation;
    - Low-precipitation-rate sprinklers;
    - Bubbler/soaker systems;
    - Programmable irrigation controllers with automatic rain shutoff sensors and flow sensing capabilities;
    - Matched precipitation rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system; and
    - Conservative sprinkler spacings that minimize overspray onto paved surfaces.

- Hydrozones that keep plants with similar water needs in the same irrigation zone;

- Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration; and

- Organic topdressing mulch in non-turf areas to decrease evaporation and increase water retention.

Mitigation Measure #3.9-2: Prior to issuance of construction and encroachment permits for landscaping, the project proponent shall incorporate into the their final design plan the low impact design features detailed in the Golden State Corridor Design Guidelines Manual to the maximum extent feasible. The lead agency or designee shall be responsible for reviewing and approving the final design plans.

The Fresno COG and/or lead agency or designee shall be provided with documentation that this mitigation measure has been implemented.

Effectiveness of Measure #3.9-1 and #3.9-2: The implementation of mitigation measures 3.9-1 and 3.9-2 would reduce this impact to ***less than significant with mitigation incorporated***.

Drainage and Stormwater (c, d, and e): The project contains the existing Golden State Corridor with existing drainage patterns. Within the incorporated areas there is existing drainage infrastructure. Construction of the project would include grading, excavation, and earthmoving activities that may result in alteration to current drainage patterns. The project would increase impervious surface coverage on the project site. The increase in impervious surface coverage would create the potential for greater runoff to leave the project site and enter downstream waterways, which could cause flooding or substantial erosion or siltation unless adequate facilities are in place. Preliminary drainage designs have been developed for the project. Mitigation measure #3.9-3 would require the preparation of design-level drainage plans to reduce potential impacts to a less than significant level.

Conclusion: The project may substantially alter the existing drainage pattern at the completion of the project and contribute to excess stormwater runoff. This is a potentially significant impact.

Mitigation Measure #3.9-3: Prior to issuance of construction and encroachment permits, the project proponent shall submit design-level drainage plans demonstrating the provision of adequate stormwater drainage facilities to the lead agency or designee for review and approval.

Effectiveness of Measure #3.9-3: This impact would be ***less than significant with mitigation incorporated***.

Flood Hazard (g, h, i): The proposed project does not include habitable structures. According to the Flood Insurance Rate Maps (2009), the project area is not in Zone A, the 100-year flood zone, the project is located in Zone X, which includes areas determined to be outside the 0.2

percent annual chance floodplain. As such, it would not locate any housing or structures within a 100-year flood hazard area. No impacts would occur. The project site lies outside the Pine Flat Dam failure flood inundation area as mapped by the Fresno County General Plan Figure 9-8. No impacts would occur.

Conclusion: ***No impacts*** would result from the project.

Mitigation Measures: None are required.

Seiche/Tsunami (j): There are no inland water bodies that could be potentially susceptible to a seiche in the project vicinity. This precludes the possibility of a seiche inundating the project site. The project site is more than 100 miles from the Pacific Ocean, a condition that precludes the possibility of inundation by tsunami. There are no steep slopes that would be susceptible to a mudflow in the project vicinity, nor are there any volcanically active features that could produce a mudflow in the cities of Fowler, Selma, Kingsburg, or unincorporated areas of Fresno County. This precludes the possibility of a mudflow inundating the project site. No impacts would occur.

Conclusion: ***No impacts*** would occur.

Mitigation Measures: None are required.

3.10 LAND USE/PLANNING	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Environmental Setting

The proposed project is located along the existing Golden State Boulevard between the communities of Fowler, Selma, and Kingsburg. Golden State Boulevard was identified as an important corridor, gateway, commercial and employment destination point, and a tourism draw for the three communities. The intent of the proposed project is to revitalize the corridor and facilitate the economic development of the communities. Each of the communities has adopted General Plans that identify specific land uses for the areas along the corridor. No changes to the General Plans are proposed by the project.

Response

Divide Established Community (a): The project would not divide an existing community, as the Golden State Corridor currently exists and the plans for improvements would not create new roadways that would physically divide an established community.

Conclusion: There would be ***no impact***.

Mitigation Measures: None are required.

Conflicts with Land Use and Zoning (b): The project does not involve any change to, or conflict with, applicable land use plans, policies, or regulations. As discussed in Section 2.0, the proposed project would provide safe and convenient transportation access and circulation for

motorized and non-motorized vehicles, and for pedestrians along Golden State Boulevard. Portions of the project area have been designated within the Fresno County, Fowler, Selma, and Kingsburg General Plans for future commercial, industrial, and residential growth. There are no land use changes proposed as part of this project. The development and implementation of the project would not induce growth beyond previously approved levels within the communities' respective General Plans.

Conclusion: There would be ***no impact***.

Mitigation Measures: None are required.

Conservation Plan (c): There are no habitat conservation plans or natural community conservation plans applicable to the proposed project area. As such, no impacts would occur.

Conclusion: ***No impacts*** would occur.

Mitigation Measures: None are required.

3.11 MINERAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:				
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Environmental Setting

According to the Fresno County General Plan Background Report; there are no significant mineral resources present within the project area.

Response

Mineral Resources (a, b): No mining occurs in the project area or in the nearby vicinity. The project site is currently disturbed and is used for roadway purposes and is not known to contain any significant mineral resources that would be of value to the region or residents of the state. Similarly, the site has not been noted in any plan for its potential to yield mineral resources and its development would not prohibit the exploration or loss of mineral resources.

Conclusion: ***No impacts*** to mineral resources would result.

Mitigation Measures: None are required.

3.12 NOISE

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
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 expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Environmental Setting

The project is located along Golden State Boulevard; the limits are generally from American Avenue to the to the terminus point of Golden State Boulevard near Mission Street in Kingsburg. The area of study passes through the cities of Fowler, Selma, and Kingsburg, and unincorporated areas under the responsibility of the County of Fresno. The project is not located in a noise-sensitive area as shown on any applicable local General Plans. The Union

Pacific Railroad mainline runs parallel to the project along Golden State Boulevard with the exception of the downtown area in the City of Selma. The typical speed of trains is 50 to 65 miles per hour with approximately 19 to 29 daily train movements within the project area. Train operators are required to sound the warning horn when approaching within approximately 1,000 feet of a grade crossing. As a result, train noise levels are higher at locations near grade crossings.

The following section summarizes the findings of the prepared by VRPA Technologies, Inc. included in its entirety as Appendix G.

Response

The FHWA Highway Traffic Noise Prediction methodology was applied in analyzing noise levels. Safety concerns were analyzed to determine the need for appropriate mitigation resulting from increased noise due to increased traffic and other evaluations such as the need for noise barriers and other noise abatement improvements. Unless otherwise stated, all sound levels reported are in A-weighted decibels (dBA). A-weighting de-emphasizes the very low and very high frequencies of sound in a manner similar to the human ear. Most community noise standards use A-weighting, as it provides a high degree of correlation with human annoyance and health effects.

SITE SELECTION

Developed and undeveloped land uses in the project vicinity were identified through land use maps, aerial photography, and site inspection. Within each land use category, sensitive receptors were then identified. Land uses in the project vicinity include single-family residences, industrial, agricultural, and commercial uses. The generalized land use data and location of particular sensitive receptors were the basis for the selection of the noise monitoring and analysis sites. A total of nine receptor locations were modeled to represent residences, industrial, agricultural, and commercial land uses in the project vicinity. These modeled receptor locations are shown as Figures 1-4a through 1-4c of the NSR (refer to Appendix G).

NOISE LEVEL MEASUREMENT PROGRAM

Existing noise levels in the project vicinity were sampled during the PM peak hour. All measurements were made using an Extech Type 2 sound level meter datalogger.

The following measurement procedure was utilized:

- Calibrate sound level meter;
- Set up sound level meter at a height of 1.5 m (5 ft);
- Commence noise monitoring;

- Collect site-specific data such as date, time, direction of traffic, and distance from sound level meter to the right-of-way;

- Count passing vehicles for a period of 15 minutes. Vehicles were split into three categories: Heavy Trucks, Medium Trucks, and Automobiles. Traffic counts and vehicle speeds are shown in Table 2-1 of the NSR (refer to Appendix G);

- Stop measurement after 15 minutes;

- Calibrate sound level meter; and

- Proceed to next monitoring site and repeat.

EXISTING NOISE CONDITIONS

Existing traffic noise levels were established based on previously collected traffic data (see Table 2-1 of the NSR) and the Traffic Noise Model (TNM) Version 2.5. TNM 2.5 is an FHWA Traffic Noise Prediction Program. Once existing levels were established, future levels, based on expected traffic growth, were calculated and compared to both the existing noise level and the maximum allowable noise level requiring abatement consideration based on the FHWA Noise Abatement Criteria (refer to Table 2-2 of the NSR). The FHWA Noise Abatement Criteria shows that abatement must be considered when the exterior noise exposure level of 67 Leq dB for residential and sport activity areas is approached or exceeded. For interior areas abatement must be considered when the noise exposure level of 52 Leq dB is approached or exceeded for FHWA criteria.

Existing traffic noise levels were evaluated using TNM 2.5. Traffic volumes collected from the traffic report completed for this project and average vehicle speeds along Golden State Boulevard, were entered into the model to estimate noise levels at various receptors that would be affected by the project.

To assess the traffic noise impacts from the project on the adjacent receptors, the first step was to determine the baseline or the existing noise condition. The second step was to then compare the baseline to future level results, based on expected traffic growth, and the FHWA Noise Abatement Criteria.

To assess existing noise conditions, VRPA Technologies staff compiled current traffic counts and existing geometric conditions. Staff conducted noise level measurements within the project site on May 19, 2011. The weather during the time of the noise measurements consisted of sunshine and wind speeds of less than five miles per hour (mph). The purpose of the measurements was to evaluate the accuracy of the model in describing traffic noise exposure within the project site.

The locations for each receptor are described below in Table 3.12-1 and are geographically depicted in Figures 1-4a through 1-4c of the NSR.

Table 3.12-1
Existing Noise Levels

Receiver ID	Location	Type of Development	Noise Abatement Criterion NAC dBA Leq(h)	Existing Noise Level Leq(h) dBA
1	Industrial area, 25 feet west of Golden State Blvd southbound center-line	Industrial	N/A	57
2	Residential homes. 75 feet west of Golden State Blvd southbound center-line	Residential	67	61
3	Industrial area, 75 feet west of Golden State Blvd southbound center-line	Industrial	N/A	59
4	Motel site. 25 feet west of Golden State Blvd southbound center-line	Motel	67	63
5	Industrial building. 25 feet west of Golden State Blvd southbound center-line	Industrial	N/A	65
6	Vicinity of residential homes. 25 feet east of Golden State Blvd northbound center-line	Residential	67	60
7	Vicinity of residential homes. 15 feet west of Golden State Blvd southbound center-line	Residential	67	62
8	Industrial building. 25 feet west of Golden State Blvd southbound center-line	Industrial	N/A	64
9	Restaurant site. 15 feet west of Golden State Blvd southbound center-line	Restaurant	72	62

Notes:
N/A - not applicable, the FHWA does not identify an abatement criteria for this land use

Source: VRPA Technologies, Inc., 2011(c)

In order to calibrate the TNM 2.5 model, the existing counts (expanded to one hour), site geometry, and any other pertinent existing conditions were added to the model. The noise level measurements taken at the project site were then compared to the noise levels computed by the model. The difference between the measured and modeled noise levels, referred to as the "K constant", is then added to the future calculated noise levels to obtain the predicted noise levels.

Noise measurements were conducted in terms of the equivalent energy sound level (Leq). Measured Leq were compared to Leq values calculated (predicted) by TNM 2.5. Traffic volumes, truck mix and vehicle speeds were used as inputs to the model. The results of this comparison are shown in Table 3.1-2 with existing Sound Level TNM printouts included in Appendix G.

Table 3.12-2
Traffic Noise Impacts for Existing Conditions

Receiver ID	Existing Noise Level Leq(h) dBA	Existing Noise Level Modeled Leq(h) dBA	K-Factor (Measured - Modeled) = K	Existing Plus Build Noise Level Leq(h) dBA	Noise Increase (+) or Decrease (-)	Impact (S, A/E, or None)*
1	57	68	11.0	57	0	None
2	61	64	3.0	60	-1	None
3	59	65	6.0	60	1	None
4	63	70	7.0	62	-1	None
5	65	74	9.0	65	0	None
6	60	70	10.0	60	0	None
7	62	68	6.0	62	0	None
8	64	71	7.0	64	0	None
9	62	64	2.0	62	0	None

Notes:
Impact: S = Substantial Increase (12 dBA or more), A/E = Approach or Exceed NAC

Source: VRPA Technologies, Inc., 2011(c)

For the Existing Plus Build scenario, 17 additional sensitive receptors were added to the model to evaluate the impacts to other sensitive receptors located within the project study area. The results are shown in Table 3.12-3.

Table 3.12-3
Traffic Noise Impacts for Existing Plus Build Conditions

Receiver ID	Existing Plus Build Noise Level Leq(h) dBA	Noise Abatement Criterion NAC dBA Leq(h)	Impact (S, A/E, or None)*
10	50	67	None
11	53	67	None
12	59	67	None
13	63	72	None
14	63	72	None
15	60	72	None
16	58	67	None
17	59	72	None
18	56	67	None
19	61	72	None
20	58	67	None
21	55	67	None
22	58	67	None
23	58	67	None
24	60	67	None
25	60	67	None
26	60	72	None

Notes:
Impact: S = Substantial Increase (12 dBA or more), A/E = Approach or Exceed NAC

Source: VRPA Technologies, Inc., 2011(c)

FUTURE YEAR CONDITIONS

Impacts in the project area resulting from 25 years of growth and development (through 2035) were also analyzed in the NSR. In the future year scenario, forecasted traffic volumes for the year 2035 were used in the model to analyze future year conditions. Results are identified in Table 3.12-4

Table 3.12-4
Traffic Noise Impacts for Future Year Conditions

Receiver ID	Future Year 2035 No Build Noise Level Leq(h) dBA	Future Year 2035 Build Noise Level Leq(h) dBA	Noise Increase (+) or Decrease (-)	Impact (S, A/E, or None)*
1	59	59	0	None
2	62	63	1	None
3	62	62	0	None
4	65	65	0	None
5	68	68	0	None
6	63	63	0	None
7	65	65	0	None
8	66	66	0	None
9	64	64	0	None
10	52	52	0	None
11	56	56	0	None
12	62	62	0	None
13	66	66	0	None
14	63	65	2	None
15	61	63	2	None
16	61	61	0	None
17	61	61	0	None
18	59	59	0	None
19	64	64	0	None
20	61	61	0	None
21	58	58	0	None
22	61	61	0	None
23	61	61	0	None
24	62	62	0	None
25	62	62	0	None
26	68	68	0	None

Notes:
Impact: S = Substantial Increase (12 dBA or more), A/E = Approach or Exceed NAC

Source: VRPA Technologies, Inc., 2011(c)

When the project is added to the background or existing noise levels, an increase in noise level is expected to occur in the City of Fowler area where Golden State Boulevard would be realigned to 8th Street. Table 3.12-4 shows that sensitive receptors 14 and 15 increase by 2 L_{eq} dB as a result of the realignment. Under Future Year conditions, none of the sensitive receptor locations in both Build and No Build scenarios exhibit predicted noise impacts that approach or exceed the NAC of 67 L_{eq} dB.

CONSTRUCTION NOISE IMPACTS

The project has the potential to result in short-term construction noise impacts to surrounding land uses due to the grading and construction activities. Construction noise represents a short-term impact on ambient noise levels. Although most of the types of exterior construction activities associated with the proposed project will not generate continually high noise levels, occasional single-event disturbances from grading and construction activities are possible. Table 3.12-5 depicts typical construction equipment noise. Construction equipment noise is controlled by the Environmental Protection Agency's Noise Control Program (Part 204 of Title 40, Code of Federal Regulations).

Table 3.12-5
Construction Equipment Noise

Type	Maximum Level dB at 50 feet	Maximum Level dB at 100 feet	Maximum Level dB at 1.0 mile
Bulldozers	87	81	47
Heavy Trucks	88	82	48
Backhoe	85	79	45
Pneumatic Tools	85	79	45
Concrete Mixer	85	79	45
Scraper	88	82	48
Portable air compressor	81	75	41

Source: Environmental Noise Pollution, 1977

During the construction phase of the project, noise from construction activities will add to the noise environment in the immediate area. Activities involved in construction would generate maximum noise levels, as indicated in Table 3.12-5, ranging from 85 to 88 dB at a distance of 50 feet. Construction activities will be temporary in nature and are expected to occur during normal daytime working hours. Construction noise impacts could result in annoyance or sleep disruption for nearby residences if nighttime operations occurred, or if unusually noisy equipment was used.

In order to minimize the construction noise impacts for sensitive receptors near the project area, Caltrans Standard Special Provisions Section 5.1 should be implemented in addition to other standard construction noise mitigation measures. These provisions follow:

"Sound control shall conform to the provisions in Section 7-1.01I, (Sound Control Requirements,) of the Standard Specifications and these special provisions. The noise level from the Contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m., shall not exceed 86 dBA at a distance of 15 meters (50 feet). This requirement in no way relieves the contractor from responsibility for complying with local ordinances regulating noise level. The noise level requirement shall apply to the equipment on the job or related to the job, including but not limited to trucks, transit mixer or transient equipment that may or may not be owned by

the contractor. The use of loud signals shall be avoided in favor of light warnings except those required by safety laws for the protection of personnel. Full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for the various contract items of work involved and no additional will be allowed therefore."

GROUNDBORNE VIBRATION

Groundborne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of groundborne vibrations typically only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Although groundborne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Groundborne noise is an effect of groundborne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may also consist of the rattling of windows or dishes on shelves.

HEAVY EQUIPMENT-RELATED VIBRATION LEVEL PREDICTION

The operation of heavy equipment can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of heavy equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of the project site respond to these vibrations with varying results ranging from no perceptible effects at the low levels to slight damage at the highest levels. Table 3.12-6 gives approximate vibration levels for particular types of heavy equipment. As shown in the table, the data provides a reasonable estimate for a wide range of soil conditions.

Table 3.12-6
Vibration Source Levels for Heavy Equipment

Equipment	Peak Particle Velocity (inches/second)	Approximate Vibration Level (L_v) at 25 feet
Hoe Ram	0.089	87
Large bulldozer	0.089	87
Loaded trucks	0.076	86
Small bulldozer	0.003	58

Source: Federal Transit Administration, 2006.

Noise Levels in Excess of Standards (a): Traffic noise levels for existing and future conditions were evaluated using the TNM 2.5 model.

Existing

Traffic noise levels were evaluated for existing conditions at nine receptor locations from the roadway center-line. As shown in the Table 3.12-1, the project area did not have any locations that exceeded the Noise Abatement Criterion. Project traffic volumes were added to the model to determine noise impacts at the nine receptor locations. Table 3.12-2 showed that none of the nine receptors would have a substantial increase noise and the Noise Abatement Criterion would not be exceeded. An additional 17 receptors were added to the model to evaluate the impacts to other sensitive receptors located within the project area; the results are shown in Table 3.12-3. As shown in Table 3.12-3, none of the additional 17 receptors would have a substantial increase in noise and the Noise Abatement Criterion would not be exceeded. The project would not exceed noise standards for existing conditions; therefore, project-related traffic noise exposure for existing conditions would be less than significant.

Future

Future year conditions for the project were evaluated for the year 2035. Future project traffic volumes were added to the model. A total of 26 receptor locations were evaluated to determine the project's noise impacts. The results are shown in Table 3.12-4. As shown in Table 3.12-4, when the project is added to the background or existing noise levels, an increase in noise levels is expected to occur in the City of Fowler area where Golden State Boulevard would be realigned to 8th Street. Those two sensitive receptor locations would increase by 2 L_{eq} dB as a result of the realignment. However, the increase would not be substantial and the receptor locations would not exceed the Noise Abatement Criterion. Furthermore, under future year conditions, none of the sensitive receptor locations in both the Build and No Build scenarios would have a predicted noise impact that approach or exceed the Noise Abatement Criterion of 67 L_{eq} dB. Accordingly, the project would not exceed noise standards for future conditions, therefore project-related traffic noise exposure for future conditions would be less than significant.

Conclusion: The project would not expose persons to or generation of noise levels in excess of standards under existing and future project conditions. This impact would be ***less than significant***.

Mitigation Measures: None are required.

Excessive Groundborne Vibration (b): The metric for measuring groundborne noise and vibration is peak sound velocity (measured in inches per second). The commonly accepted perception threshold for ground vibration is 0.01 inch per second. During the site preparation and construction, groundborne vibration and groundborne noise may occur. However, these activities do not include activities known to induce strong vibration effects, such as those produced by tunneling or blasting. Therefore, site preparation and construction-related vibration levels are expected to be well below the 0.01 inch-per-second perception threshold at nearby properties, resulting in an impact that is less than significant.

Conclusion: The project would not expose persons to or generation of excessive groundborne vibration or groundborne noise levels. This impact would be ***less than significant***.

Mitigation Measures: None are required.

Permanent Increase in Ambient Noise Levels (c): Long-term impacts would result from vehicle traffic associated with the proposed project. As discussed in Impact (a) above, project-related traffic noise levels would not significantly impact existing noise sensitive receivers. Based on the Noise Study Report, the project is not expected to result in significant substantial permanent increases in ambient noise levels at any noise sensitive locations within the project area. Accordingly, noise impacts are less than significant.

Conclusion: The project would not cause a substantial permanent increase in ambient noise levels. This impact would be ***less than significant***.

Mitigation Measures: None are required.

Temporary or Periodic Increase in Ambient Noise Levels (d): During construction of the project, construction noise could cause a short-term increase in noise levels to sensitive receptor adjacent to construction areas. Activities involved in construction would typically generate maximum noise levels as high as 87 dB at a distance of 50 feet. Construction activities would be temporary and would occur during daytime hours. Project construction noise is considered potentially significant. In order to minimize the construction noise impacts for sensitive receptors near the project area, mitigation measures have been incorporated into the project.

Conclusion: Construction activities may expose sensitive receptors to a temporary increase in excess ambient noise levels. This is a ***potentially significant impact***.

Mitigation Measure #3.12-1: The lead agency or designee shall require that construction contractors comply with all applicable local regulations regarding noise suppression and attenuation and shall require that engine-driven equipment be fitted with mufflers according to manufacturers' specifications. The following requirements shall be included in the construction specifications:

- Limit construction activities to the hours of 7:00 a.m. to 7:00 p.m. on weekdays and the hours of 8:00 a.m. to 5:00 p.m. on weekends and federally recognized holidays except as required to alleviate traffic congestion or safety hazards;

- Locate fixed construction equipment such as compressors and generators at distances no less than 250 feet from sensitive receptors (including occupied residential property boundaries);

- Shroud or shield impact tools, and muffle or shield intake and exhaust ports on power construction equipment;

- Construction equipment using internal combustion engines shall be in proper tune; and

- Comply with Caltrans Standard Special Provisions Section 5.1.

Airport Noise (e, f): There are no public airports within two miles of the project site; however, within the City of Selma there are two private airports which are available for public use. The Selma Aerodome is located north of Floral Avenue and West of DeWolf Avenue adjacent to Rockwell Pond on the west side of town. The Quinn Airport is located between State Route 99 and Golden State Boulevard south of East Dinuba Avenue. Noise from aircraft activity is not a primary source of noise in the project area. Based on distance to nearby airports and the expected noise levels from those facilities, aircraft noise would not result in excessive noise at the project site, therefore, there would be no aircraft noise impacts.

Conclusion: There would be ***no impact***.

Mitigation Measures: None are required.

3.13 POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial 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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Environmental Setting

The project site is located approximately adjacent to State Route 99, between the communities of Fowler, Selma, Kingsburg and the unincorporated area of Fresno County. Land uses surrounding the project site consist of a mix of industrial, commercial, agricultural and supporting facilities. According to data obtained from the California Department of Finance, the January 2011 population estimates for the area were:

Fowler – 5,719 people
Selma – 23, 395 people
Kingsburg – 11,509 people

This represented an approximate 24-percent increase above the combined 2000 population of 32,721. Fresno County's population as a whole was estimated at 940,220 for January 2011 and 799,407 for the year 2000, resulting in a 17.6-percent increase in the County's total population over the last 11 years.

Response

Population Growth and Displacement (a, b, c): The project would not result in a substantial population increase or displacement, nor would it require the construction of replacement housing elsewhere as it is a roadway improvement project. As discussed under the Land Use section, the intent of the project is to revitalize the corridor and facilitate the economic development of the communities. Each of the communities has adopted General Plans that identify specific land uses for the areas along the corridor. No changes to land use or to the

General Plans are proposed by the project. The project will allow those communities to grow in accordance with their adopted general plans. The project does not include the development of housing and will not induce population growth. In addition, no housing or people will be displaced by the project as the project site has been historically disturbed and used as a roadway or right-of-way.

Conclusion: There would be ***no impacts*** to population or housing.

Mitigation Measures: None are required.

3.14 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) 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 impact, in order to maintain acceptable service ratios for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Environmental Setting

FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

Fire protection and emergency medical services within the project area are provided by multiple agencies. Within the Fowler City limits, the Fowler Fire Department provides fire protection and emergency medical services. The Fowler Fire Department is an all volunteer department. The California Department of Forestry and Fire Protection provides assistance to the Fowler Fire Department.

The City of Selma Fire Department provides fire protection services, hazardous materials response, emergency medical services, including first response and transportation, and technical rescue to a 6-square-mile area including all areas within the city limits. The Selma Fire Department, as part of the Fresno County Emergency Services System, also covers 150 square miles of Fresno County for paramedic ambulance service. In addition, the fire department maintains mutual aid agreements whereby secondary fire service response can be provided upon request from anywhere in the State of California.

The Kingsburg City Fire Department provides both fire and ambulance services not only to the citizens of Kingsburg but also to those citizens in the surrounding unincorporated areas of Fresno, Kings and Tulare Counties.

The Fresno County Fire Protection District provides fire protection to the unincorporated areas of Fresno County through five special districts.

POLICE PROTECTION

Law enforcement services within the project area are provided by multiple agencies. Within the City of Fowler services are provided by the City of Fowler Police Department.

Law enforcement services within the City of Selma are provided by the City of Selma Police Department. The City of Selma Police Department consists of 54 personnel: 37 sworn officers and 17 non-sworn support staff.

The Kingsburg Police Department provides law enforcement services within the City of Kingsburg. The Kingsburg Police Department currently has 15 sworn peace officers. Those positions include the Chief, the Dispatch Team, three Sergeants, a Detective, and ten Patrol Officers.

Outside the cities limits, the Fresno County Sheriff's Department provides law enforcement services to unincorporated areas of Fresno County.

SCHOOLS

The Fowler Unified School District, the Selma Unified School District and the Kingsburg Unified School District are responsible for educational services within their service areas in the communities of Fowler, Selma, and Kingsburg.

PARKS

The provision of parks within the project area is accomplished by multiple agencies. The Fowler Public Works Department and the Selma Public Works Department are responsible for parks with the City of Fowler and Selma, respectively. The Kingsburg Community Services Department is responsible for parks within the City of Kingsburg.

Response

Fire Protection, Law Enforcement and Emergency Medical Services (a): Fire suppression services within the project area are provided by the City of Fowler, the City of Selma, the City of Kingsburg, and the Fresno County Fire Protection District, depending on the service location. The project would result in the construction of roadway improvements and would be constructed in accordance with local and state fire codes. Any calls for service would cause only temporary effects to fire services, and impacts would not result in a notable increase in fire risk and service demand for the area. Impacts would be less than significant.

Law enforcement services are similarly provided by the City of Fowler, the City of Selma, the City of Kingsburg, and the Fresno County Sheriff's Department. As discussed in Section 13.3, Population and Housing, the proposed project would not induce substantial population growth. Impacts on police protection services related to population growth would be considered less than significant.

The project would have a beneficial impact on law enforcement, fire and medical services as the project would provide increased safety and increased level of service to accommodate existing and future traffic demands.

Conclusion: The project will not create a significant demand for additional fire or law enforcement services. There would be ***no impacts***.

Mitigation Measures: None are required.

School Facilities (a): Primary educational services are provided by the Fowler Unified School District, the Selma Unified School District, and the Kingsburg Unified School District. The project does not contain any residential uses and would not directly induce population growth. Therefore, the project would not result in the need for new or expanded school facilities. As such, no impacts would occur.

Conclusion: The project would not create a significant demand for additional school facilities or staff. There would be ***no impact***.

Mitigation Measures: None are required.

Park Facilities (a): The project would not result in an increase in demand for parks and recreation facilities because it would not result in an increase in population. Accordingly, the project would have no impacts on parks.

Conclusion: There would be ***no impact***.

Mitigation Measures: None are required.

Other Public Facilities (a): The project does not propose residential, commercial, or industrial development. The project, therefore, would not result in increased demand for, or impacts on, other public facilities such as library services. Accordingly, no impact would occur.

Conclusion: There would be ***no impact***.

Mitigation Measures: None are required.

Conclusion: ***No impacts*** to public services would result during the construction or resulting from the project.

3.15 RECREATION

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

Environmental Setting

Only one park, Pioneer Village is located adjacent to the project site. The park is managed by the City of Selma and would not be affected by the proposed improvements.

Response

Recreational Facilities (a, b): The project does not include the construction of residential uses and would not directly induce population growth. Therefore, the project would not cause physical deterioration of existing recreational facilities from increased usage or result in the need for new or expanded recreational facilities.

Conclusion: ***No impacts*** would occur.

Mitigation Measures: None are required.

3.16 TRANSPORTATION/TRAFFIC	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management City for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☒	☐	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Potential traffic impacts resulting from the project were analyzed in the Traffic Technical Report prepared by VRPA Technologies, Inc. in November 2011 (Appendix H). The Traffic Report was completed in accordance with general engineering standards. Traffic engineering principles and methods were employed to estimate the amount of traffic expected to exist in the future and the analysis of existing and future traffic conditions.

Operating conditions during the AM and PM peak hours were evaluated under Existing, Existing Plus Project, Future Year 2035 without Project, and Future Year 2035 with Project conditions. The study area includes the following intersections and roadway segments:

INTERSECTIONS

Draper Street / Simpson Street
Sierra Street / Simpson Street
Stroud Avenue / Golden State Boulevard
Kamm/Bethel Avenues / Golden State Boulevard
Mountain View Avenue / Golden State Boulevard
Saginaw Avenue / Golden State Boulevard
Dockery Avenue / Golden State Boulevard
Nebraska Avenue / Golden State Boulevard
2nd Street / Whitson Street
Thompson Avenue / Whitson Street
Floral Avenue / Whitson Street
Highland Avenue / Golden State Boulevard
Dinuba Avenue / Golden State Boulevard
De Wolf Avenue / Golden State Boulevard
Manning Avenue / Golden State Boulevard
Valley Drive / Golden State Boulevard
Temperance Avenue / Golden State Boulevard
South Avenue / Golden State Boulevard
Vine Street / Golden State Boulevard
Merced Street / Golden State Boulevard
Mariposa Street / Golden State Boulevard
Adams Avenue / Golden State Boulevard

ROADWAY SEGMENTS

Golden State Boulevard between:
Draper Street and Sierra Street
Sierra Street and Mountain View Avenue
Mountain View Avenue and 2nd Street
2nd Street and Thompson Avenue
Thompson Avenue and Floral Avenue
Floral Avenue and Highland Avenue
Highland Avenue and Manning Avenue
Manning Avenue and Merced Street
Merced Street and Adams Avenue

Certain intersections are included in the geographic area of Golden State Boulevard that was under study, but were not included in the traffic analysis study area because there was no question regarding how the traffic control or lane geometry should be handled. For example, the segment of Golden State Boulevard between American Avenue and Adams Avenue includes the following intersections that were not included in the traffic analysis study area: Bonita Avenue, Clayton Avenue, Clovis Avenue, Lincoln Avenue, and Jefferson Avenue. These intersections from American Avenue to Adams Avenue are minor intersections and traffic volumes at these intersections are expected to be less than other major intersections studied in the Traffic Technical Report, as such impacts would be less than those impacts at major intersections.

Environmental Setting

The project is located within the central portion of the San Joaquin Valley. The project is located on the Valley floor at an elevation of approximately 300 feet above sea level with the surrounding area mostly flat. The project limits encompass American Avenue in Fowler, to the terminus point of Golden State Boulevard near Mission Street in Kingsburg. The project width is 300 feet wide, centered on the current Golden State Boulevard centerline. The area of study passes through the cities of Fowler, Selma, and Kingsburg, and unincorporated areas under the responsibility of the County of Fresno. Existing roadway classifications near the project site are shown in Figure 2-1 of the Traffic Technical Report (Appendix H). Existing lane geometry of study intersections and road segments are shown in Figure 2-2a and Figure 2-2b of the Traffic Technical Report. Currently, 10 of the study intersections are signalized and 12 are unsignalized. Figures 2-3a, 2-3b and 2-4a and 2-4b in the Traffic Technical Report show the existing traffic volumes for the AM and PM peak hours in the study area.

MASS TRANSPORTATION

Existing mass transportation services in Fresno County consist of both public transit and AMTRAK rail passenger service. Transit services include inter-city, fixed-route, and demand responsive operations. Common carriers within Fresno County include AMTRAK, Greyhound, Orange Belt Stage Lines, and others.

PUBLIC TRANSIT FACILITIES

The Fresno County Rural Area is served by common carriers, the general public and social service providers. The primary provider of rural general public transportation is the Fresno County Rural Transit Agency (FCRTA), which provides fixed-route services that link communities with each other and with the Fresno-Clovis Metropolitan Area. Intra-community public transport services (fixed-route and/or demand response) are provided through public, and private or non-profit agencies. These services address the needs of the elderly, disabled, as well as the general public.

Fresno COG designated the FCRTA and the Fresno County Economic Opportunities Commission (FCEOC) as the Rural Consolidated Transportation Service Agency (Rural CTSA). FCEOC is responsible for program administration including coordination with social service agencies, data collection, development and implementation of the Rural CTSA Operations

Program and Budget, enactment of service contracts, and other administrative tasks. The Rural CTSA process involves four types of coordinated transportation services that include vehicle timesharing, ridesharing, consolidation, and maintenance. In addition to providing service to these agencies, the Rural CTSA provides FCRTA with drivers for some of its public transit sub-systems.

The city of Fowler is provided with a demand responsive service for the community. Service runs from 7:00 a.m. to 5:30 p.m. on weekdays with no service during the weekends.

The city of Kingsburg is also provided with a demand responsive service for the community. Service runs from 7:00 a.m. to 5:30 p.m. on weekdays and from 8:00 a.m. to 5:00 p.m. on Saturdays.

The city of Selma contains both a demand responsive service and a scheduled, fixed route service. The demand responsive service runs from 7:00 a.m. to 5:30 p.m. on weekdays and from 8:00 a.m. to 5:00 p.m. on Saturdays. The scheduled, fixed route services the McCall Shopping Center, the Selma Plaza, and the Selma Shopping Center by way of Floral Avenue and Whitson Street. Each stop is serviced approximately every 30 minutes throughout the loop. Service is provided from 8:00 a.m. to 5:00 p.m. on weekdays only.

The cities of Selma, Kingsburg, and Fowler are connected to Fresno through Southeast Transit. The community transit systems link up to Southeast Transit, which in turn services the four cities. Southeast Transit services one stop each in Kingsburg and Fowler, with two stops each in Selma and Fresno. In Fresno, Southeast Transit provides connections to the Fresno Area Express. It provides service stops three times a day, from 7:00 a.m. to 5:30 p.m. during the weekdays only.

The most recent Public Transportation Infrastructure Study (PTIS) says that there is not enough density along Golden State Corridor to support light rail or commuter rail. Light rail may be feasible in the long term if the size of the City of Fresno's downtown employment center increases and the Cities of Fowler, Selma, and Kingsburg increase their core residential densities around the stations. The PTIS recommends express bus service along the Golden State Corridor with park/ride parking lots in the Cities of Fowler, Selma, Kingsburg, and Malaga when density will support it. The express bus service would be timed for easy transfers to the recommended Fresno Bus Rapid Transit system in downtown Fresno.

RAIL

The Union Pacific (UP) Railroad mainline runs parallel to the project along Golden State Boulevard with the exception of the downtown area in the City of Selma. The typical speed of trains is 50 to 65 miles per hour with approximately 19 to 29 daily train movements within the project area.

Existing Conditions

As shown in Table 3.16-1, under the Existing Conditions analysis, all of the study intersections

Table 3.16-1
Existing Intersection Operations

Intersection	Peak Hour	Existing Delay	Existing LOS
1. Draper St/Simpson Street [1]	AM	26.0	C
	PM	25.8	C
2. Sierra St/Simpson Street [1]	AM	35.8	D
	PM	38.0	D
3. Stroud Ave/Golden State Blvd [2]	AM	10.7	B
	PM	14.4	B
4. Kamm/Bethel Ave/Golden State Blvd[3]	AM	9.5	A
	PM	9.9	A
5. Mountain View Ave/Golden State Blvd [1]	AM	27.3	C
	PM	29.8	C
6. Saginaw Ave/Golden State Blvd [4]	AM	10.1	B
	PM	11.8	B
7. Dockery Ave/Golden State Blvd [4]	AM	9.6	A
	PM	10.2	B
8. Nebraska Ave/Golden State Blvd [2]	AM	11.5	B
	PM	15.8	C
9. 2nd St/Whitson St[1]	AM	30.4	C
	PM	33.6	C
10. Thompson Ave/Whitson St[1]	AM	17.6	B
	PM	27.4	C
11. Floral Ave/Whitson St[1]	AM	29.4	C
	PM	34.4	C
12. Highland Ave/Golden State Blvd[1]	AM	39.2	D
	PM	39.4	D
13. Dinuba Ave/Golden State Blvd[2]	AM	19.8	C
	PM	31.2	D
14. De Wolf Ave/Golden State Blvd[2]	AM	12.3	B
	PM	23.8	C
15. Manning Ave/Golden State Blvd[1]	AM	**116.6**	**F**
	PM	**64.3**	**E**
16. Valley Drive/Golden State Blvd[4]	AM	9.1	A
	PM	10.0	A
17. Temperance Ave/Golden State Blvd [2]	AM	14.6	B
	PM	16.4	C
18. South Ave/Golden State Blvd[2]	AM	15.0	C
	PM	18.5	C
19. Vine Street/Golden State Blvd[2]	AM	14.8	B
	PM	16.7	C
20. Merced St/Golden State Blvd[1]	AM	32.5	C
	PM	29.7	C
21. Mariposa St/Golden State Blvd[2]	AM	11.4	B
	PM	13.5	B
22. Adams Ave/Golden State Blvd[1]	AM	21.2	C
	PM	21.6	C

Notes:
Delay is measured in seconds
LOS = Level of Service/Bold denotes LOS standard has been exceeded
(1) Signalized Intersection. Delay results show the average delay for the entire intersection.
(2) Two-Way Stop Intersection. Delay results show the delay for the worst movement.
(3) Four-Way Stop Intersection. Delay results show the average delay for the entire intersection.
(4) One-Way Intersection. Delay results show the delay for the worst movement.

Source: VRPA Technologies, Inc., 2011(d)

are operating at acceptable Level of Service (LOS) during the AM and PM peak period with the exception of the intersection of Manning Avenue / Golden State Boulevard which is operating at LOS F and E during the AM peak hour and PM peak hour, respectively. As shown in Table 3.16-2 all study street segments are operating at acceptable LOS.

Table 3.16-2
Existing Street Segment Operations

Street Segment	Segment Description [1]	Direction	Peak Hour [2]	Existing Volume	Existing LOS
Golden State Boulevard					
1. Draper St to Sierra St	2-lanes/divided	NB	AM	113	C
			PM	138	C
		SB	AM	124	B
			PM	148	B
2. Sierra St to Mountain View Ave	4-lanes/divided	NB	AM	158	A
			PM	165	A
		SB	AM	115	B
			PM	221	B
3. Mountain View to 2nd St	4-lanes/divided	NB	AM	188	A
			PM	265	B
		SB	AM	155	A
			PM	287	A
4. 2nd St to Thompson Ave	4-lanes/divided	NB	AM	175	C
			PM	423	C
		SB	AM	216	B
			PM	376	C
5. Thompson Ave to Floral Ave	4-lanes/divided	NB	AM	177	C
			PM	404	C
		SB	AM	226	C
			PM	413	C
6. Floral Ave to Highland Ave	4-lanes/divided	NB	AM	136	C
			PM	215	C
		SB	AM	157	C
			PM	247	C
7. Highland Ave to Manning Ave	4-lanes/divided	NB	AM	353	A
			PM	279	A
		SB	AM	250	A
			PM	528	A
8. Manning Ave to Merced St	4-lanes/divided	NB	AM	236	A
			PM	263	A
		SB	AM	243	A
			PM	324	A
9. Merced St to Adams Ave	4-lanes/divided	NB	AM	165	A
			PM	167	A
		SB	AM	161	B
			PM	271	B

LOS = Level of Service/BOLD denotes LOS standard has been exceeded
(1) Segment description based on number of lanes in both directions
(2) Represents highest volume on segment considering traffic entering and exiting the segment from adjacent intersections

Source: VRPA Technologies, Inc., 2011(d)

Conflict with plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system (a): Operating conditions of intersections and roadway segments during the AM and PM peak hours were evaluated under the Existing Plus Project, Future Year 2035 without Project, and Future Year 2035 with Project conditions. Each scenario is described and evaluated below.

LEVEL OF SERVICE FOR ROADWAY INTERSECTIONS AND SEGMENTS

Existing Plus Build

An Existing Plus Build scenario was analyzed to include existing traffic plus potential improvements for project. The resulting LOS is shown in Table 3.16-3 and 3.16-4. Results of the analysis show none of the study intersections or segments would operate worse than the minimum level of service.

Future Year 2035 Conditions

Future traffic operations were analyzed considering future traffic conditions in the year 2035. The levels of traffic expected in 2035 relate to the cumulative effect of traffic increases resulting from the implementation of the General Plans of local agencies, including the Cities of Fowler, Selma, and Kingsburg, and Fresno County. VRPA considered the Fresno COG traffic model and population growth over the last 30 years in the County and the Cities in estimating traffic conditions for the Year 2035. Population forecasts for 2035 for the Cities and County provided by Fresno COG were ultimately used to determine the annual growth rate of 2.5 percent, which was applied in the future conditions analysis. This process can be summarized as follows:

- The Fresno COG population growth from 1980 to 2010 was used to estimate the future traffic forecasts for study area roadway segments. It was determined that the population growth over the last 30 years was estimated to be 2.5 percent per year;

- Existing AM and PM peak hour turning movement forecasts and 2035 roadway segment traffic forecasts were input to the TurnsW32 program and the program calculated 2035 AM and PM peak hour turning movements, as described in Fresno COG guidelines for determining future year turning movement forecasts (See Appendix D of Traffic Technical Report for Worksheets); and

- The Institute of Transportation Engineers (ITE) recognizes the use of population forecasts/growth as a means to determining future year traffic as discussed in ITE's publication, Transportation and Land Use Development, 2nd Edition.

Table 3.16-3
Existing Plus Build Intersection Operations

Intersection	Peak Hour	Existing Plus Build	
		Delay	LOS
1. Draper St/Simpson Street [1]	AM	26.0	C
	PM	25.8	C
2. Sierra St/Simpson Street [1]	AM	35.8	D
	PM	38.0	D
3. Stroud Ave/Golden State Blvd [2]	AM	10.7	B
	PM	14.4	B
4. Kamm/Bethel Ave/Golden State Blvd[3]	AM	11.5	B
	PM	11.2	B
5. Mountain View Ave/Golden State Blvd [1]	AM	27.3	C
	PM	29.8	C
6. Saginaw Ave/Golden State Blvd [4]	AM	10.0	B
	PM	11.7	B
7. Dockery Ave/Golden State Blvd [4]	AM	10.2	B
	PM	11.3	B
8. Nebraska Ave/Golden State Blvd [2]	AM	11.4	B
	PM	13.3	B
9. 2nd St/Whitson St[1]	AM	30.4	C
	PM	33.6	C
10. Thompson Ave/Whitson St[1]	AM	17.6	B
	PM	27.4	C
11. Floral Ave/Whitson St[1]	AM	27.2	C
	PM	31.4	C
12. Highland Ave/Golden State Blvd[1]	AM	37.2	D
	PM	37.8	D
13. Dinuba Ave/Golden State Blvd[2]	AM	9.8	A
	PM	12.4	B
14. De Wolf Ave/Golden State Blvd[2]	AM	4.0	A
	PM	10.4	B
15. Manning Ave/Golden State Blvd[1]	AM	44.2	D
	PM	35.5	D
16. Valley Drive/Golden State Blvd[4]	AM	9.1	A
	PM	10.0	A
17. Temperance Ave/Golden State Blvd [2]	AM	14.1	B
	PM	15.5	C
18. South Ave/Golden State Blvd[2]	AM	14.9	B
	PM	14.0	B
19. Vine Street/Golden State Blvd[2]	AM	14.8	B
	PM	16.2	C
20. Merced St/Golden State Blvd[1]	AM	26.5	C
	PM	27.3	C
21. Mariposa St/Golden State Blvd[2]	AM	11.4	B
	PM	13.5	B
22. Adams Ave/Golden State Blvd[1]	AM	21.2	C
	PM	21.6	C

Notes:
Delay is measured in seconds
LOS = Level of Service/Bold denotes LOS standard has been exceeded
(1) Signalized Intersection. Delay results show the average delay for the entire intersection.
(2) Two-Way Stop Intersection. Delay results show the delay for the worst movement.
(3) Four-Way Stop Intersection. Delay results show the average delay for the entire intersection.
(4) One-Way Intersection. Delay results show the delay for the worst movement.

Source: VRPA Technologies, Inc., 2011(d)

Table 3.16-4
Existing Plus Build Street Segment Operations

Street Segment	Segment Description [1]	Direction	Peak Hour [2]	Existing Plus Build Volume	LOS
Golden State Boulevard					
1. Draper St to Sierra St	2-lanes/divided	NB	AM	113	C
			PM	138	C
		SB	AM	124	B
			PM	148	B
2. Sierra St to Mountain View Ave	4-lanes/divided	NB	AM	158	A
			PM	165	A
		SB	AM	115	B
			PM	221	B
3. Mountain View to 2nd St	4-lanes/divided	NB	AM	188	A
			PM	265	B
		SB	AM	155	A
			PM	287	A
4. 2nd St to Thompson Ave	4-lanes/divided	NB	AM	175	C
			PM	423	C
		SB	AM	216	B
			PM	376	C
5. Thompson Ave to Floral Ave	4-lanes/divided	NB	AM	177	C
			PM	404	C
		SB	AM	226	C
			PM	413	C
6. Floral Ave to Highland Ave	4-lanes/divided	NB	AM	136	C
			PM	215	C
		SB	AM	157	C
			PM	247	C
7. Highland Ave to Manning Ave	4-lanes/divided	NB	AM	353	A
			PM	279	A
		SB	AM	250	A
			PM	528	A
8. Manning Ave to Merced St	4-lanes/divided	NB	AM	236	A
			PM	263	A
		SB	AM	243	A
			PM	324	A
9. Merced St to Adams Ave	4-lanes/divided	NB	AM	165	A
			PM	167	A
		SB	AM	161	B
			PM	271	B

LOS = Level of Service/BOLD denotes LOS standard has been exceeded
(1) Segment description based on number of lanes in both directions
(2) Represents highest volume on segment considering traffic entering and exiting the segment from adjacent intersections

Source: VRPA Technologies, Inc., 2011(d)

Consideration was given to adding traffic generated by specific land development projects along the corridor that would be above and beyond the 2.5 percent per year annual growth rate in traffic levels. In order to be included, it was considered necessary for specific land development projects to have an approved environmental document and have significant traffic generation that would not be included in the annual growth rate increase. Without an approved environmental document, a project would be considered speculative since it could be modified or disapproved during the

environmental review process. For smaller projects with approved environmental documents, traffic increases would either be relatively small or considered to be double counted if traffic were added above and beyond the annual increase. Discussions with local officials did not result in any projects that met both of these characteristics. There are some specific land development projects in the discussion stage within the corridor. For these projects, it would be recommended that the environmental process be completed using the existing corridor plan as a base for analyzing traffic impacts. Following approval, traffic improvements for these developments could either be undertaken as separate mitigation measures or the plan for the corridor could be amended to include the development-related improvements along with an appropriate strategy for sharing of roadway improvement costs.

As of the release of this document it is known that there are other traffic analyses being undertaken (specifically Selma Crossings and Guardian-Sun-Maid Annexation) but that the information was not available. For a number of reasons, traffic analyses conducted separately and at differing time periods can produce different results. As is common, when a regional traffic analysis is not consistent with a more focused project-oriented traffic analysis, the more focused analysis should be used.

Figures 3-1a, 3-1b, 3-2a and 3-2b in the Traffic Technical Report show Future Year 2035 traffic volumes for the AM and PM peak hours in the study area.

Future Year No Build Traffic Conditions

The future lane geometry for the no build condition was assumed to be the same as existing conditions.

Table 3.16-5 shows intersections that are expected to fall short of desirable operating conditions for the future year no build scenario. Results of the analysis show that 10 of the study intersections are expected to operate worse than the minimum level of service. However, four of those intersections do not meet signal warrants. Signal Warrant Worksheets are provided in the Traffic Technical Report (see Appendix H). Potential mitigation measures are discussed under the Future Year Plus Project scenario.

Table 3.16-6 shows the performance of the study segment operations under future year no build conditions. Results of the analysis show that none of the study segments are expected to operate worse than the minimum level of service under the future no build scenario.

Table 3.16-5
Future Year No Build Intersection Operations

Intersection	Peak Hour	Future Year 2035	
		Delay	LOS
1. Draper St/Simpson Street [1]	AM	38.5	D
	PM	41.4	D
2. Sierra St/Simpson Street [1]	AM	49.5	D
	PM	51.5	D
3. Stroud Ave/Golden State Blvd [2]	AM	13.6	B
	PM	22.7	C
4. Kamm/Bethel Ave/Golden State Blvd[3]	AM	17.4	C
	PM	21.2	C
5. Mountain View Ave/Golden State Blvd [1]	AM	33.2	C
	PM	**47.5**	D
6. Saginaw Ave/Golden State Blvd [4]	AM	11.2	B
	PM	16.0	C
7. Dockery Ave/Golden State Blvd [4]	AM	10.2	B
	PM	11.8	B
8. Nebraska Ave/Golden State Blvd [2]	AM	16.9	C
	PM	**67.5**	**F***
9. 2nd St/Whitson St[1]	AM	35.4	D
	PM	45.7	D
10. Thompson Ave/Whitson St[1]	AM	22.2	C
	PM	34.5	C
11. Floral Ave/Whitson St[1]	AM	34.8	C
	PM	**60.3**	**E**
12. Highland Ave/Golden State Blvd[1]	AM	**61.5**	**E**
	PM	**62.0**	**E**
13. Dinuba Ave/Golden State Blvd[2]	AM	**55.3**	**F**
	PM	**1250.1**	**F**
14. De Wolf Ave/Golden State Blvd[2]	AM	16.1	C
	PM	**281.1**	**F**
15. Manning Ave/Golden State Blvd[1]	AM	**281.1**	**F**
	PM	**148.9**	**F**
16. Valley Drive/Golden State Blvd[4]	AM	16.6	C
	PM	24.7	C
17. Temperance Ave/Golden State Blvd [2]	AM	**26.7**	**D***
	PM	**58.6**	**F***
18. South Ave/Golden State Blvd[2]	AM	**31.2**	**D***
	PM	**152.4**	**F***
19. Vine Street/Golden State Blvd[2]	AM	**36.7**	**E***
	PM	**187.5**	**F***
20. Merced St/Golden State Blvd[1]	AM	**43.3**	**D**
	PM	**41.8**	**D**
21. Mariposa St/Golden State Blvd[2]	AM	14.1	B
	PM	22.5	C
22. Adams Ave/Golden State Blvd[1]	AM	27.7	C
	PM	26.1	C

Notes:
Delay is measured in seconds
LOS = Level of Service/Bold denotes LOS standard has been exceeded
(1) Signalized Intersection. Delay results show the average delay for the entire intersection.
(2) Two-Way Stop Intersection. Delay results show the delay for the worst movement.
(3) Four-Way Stop Intersection. Delay results show the average delay for the entire intersection.
(4) One-Way Intersection. Delay results show the delay for the worst movement.
* Does not meet signal warrants

Source: VRPA Technologies, Inc., 2011(d)

Table 3.16-6
Future Year No Build Street Segment Operations

Street Segment	Segment Description (1)	Direction	Peak Hour (2)	Future Year 2035 Volume	Future Year 2035 LOS
Golden State Boulevard					
1. Draper St to Sierra St	2-lanes/divided	NB	AM	210	C
			PM	256	C
		SB	AM	229	C
			PM	274	C
2. Sierra St to Mountain View Ave	4-lanes/divided	NB	AM	293	A
			PM	307	A
		SB	AM	214	B
			PM	410	B
3. Mountain View to 2nd St	4-lanes/divided	NB	AM	348	B
			PM	491	B
		SB	AM	287	A
			PM	533	A
4. 2nd St to Thompson Ave	4-lanes/divided	NB	AM	325	C
			PM	765	C
		SB	AM	343	C
			PM	672	C
5. Thompson Ave to Floral Ave	4-lanes/divided	NB	AM	328	C
			PM	773	C
		SB	AM	419	C
			PM	784	D
6. Floral Ave to Highland Ave	4-lanes/divided	NB	AM	253	D
			PM	399	D
		SB	AM	291	C
			PM	458	C
7. Highland Ave to Manning Ave	4-lanes/divided	NB	AM	655	A
			PM	518	A
		SB	AM	463	A
			PM	987	A
8. Manning Ave to Merced St	4-lanes/divided	NB	AM	438	A
			PM	488	A
		SB	AM	451	A
			PM	601	A
9. Merced St to Adams Ave	4-lanes/divided	NB	AM	306	B
			PM	309	B
		SB	AM	298	C
			PM	503	C

LOS = Level of Service/BOLD denotes LOS standard has been exceeded
(1) Segment description based on number of lanes in both directions
(2) Represents highest volume on segment considering traffic entering and exiting the segment from adjacent intersections

Source: VRPA Technologies, Inc., 2011(d)

Future Year Build Traffic Conditions

The Golden State Corridor project includes potential improvements at study area intersections and segments. These improvements would result in acceptable levels of service, with some exceptions as noted below.

The following improvements are recommended for the Future Year Build Traffic scenario:

Stroud Avenue at Golden State Boulevard

- Widen the northbound approach (Golden State Boulevard) to one left turn lane and two through lanes, and one right turn lane (adding one left turn lane and one right turn lane).

- Widen the southbound approach (Golden State Boulevard) to one left turn lane and two through lanes with a shared right (adding one left turn lane).

Kamm/Bethel Avenues at Golden State Boulevard

- Install Traffic Signal.

- Widen the northbound approach (Golden State Boulevard) to one left turn lane and two through lanes, and one right turn lane (adding one left turn lane and one right turn lane).

- Widen the southbound approach (Golden State Boulevard) to one left turn lane and two through lanes with a shared right (adding one left turn lane).

- Install pre-signals at the railroad crossing.

Mountain View Avenue at Golden State Boulevard

- Widen the northbound approach (Golden State Boulevard) to one left turn lane, two through lanes, and one right turn lane (adding one right turn lane).

- Widen railroad crossing and protection equipment.

Fresno County has planned to construct a grade separation at the intersection of Golden State Boulevard at Mountain View Avenue, but has been unsuccessful in obtaining funding. As a result, the planned grade separation was not included in evaluating environmental impacts as part of this study.

Saginaw Avenue at Golden State Boulevard

- Widen the northbound approach (Golden State Boulevard) to two through lanes and one right turn lane (adding one right turn lane).

- Widen the southbound approach (Golden State Boulevard) to one left turn lane and two through lanes with a shared right (adding one left turn lane).

Dockery Avenue at Golden State Boulevard

- Widen the northbound approach (Golden State Boulevard) to one left turn lane and two through lanes with a shared right (adding one left turn lane).

Nebraska Avenue at Golden State Boulevard

- Widen the westbound approach (Nebraska Avenue) to one left turn lane and one through lane with a shared right (adding one left turn lane).

- Widen the northbound approach (Golden State Boulevard) to one shared left-through lane, one through lane, and one right turn lane (adding one right turn lane).

Floral Avenue at Whitson Street

- Widen the eastbound approach (Floral Avenue) to one left turn lane, two through lanes, and one right turn lane (adding one right turn lane).

Highland Avenue at Golden State Boulevard

- Widen the westbound approach (Highland Avenue) to one left turn lane and one through-right turn lane (adding one left turn lane).

Dinuba Avenue at Golden State Boulevard

- Install Traffic Signal.

- Install pre-signals at the railroad crossing.

- Widen the northbound approach (Golden State Boulevard) to one left turn lane, two through lanes, and one right turn (adding one right turn lane).

De Wolf Avenue at Golden State Boulevard

- Install Traffic Signal.

- Widen the northbound approach (Golden State Boulevard) to one left turn lane and two through lanes, and one right turn lane (adding one left turn lane and one right turn lane).

- Widen the southbound approach (Golden State Boulevard) to one left turn lane and two through lanes with a shared right (adding one left turn lane).

- Install pre-signals at the railroad crossing.

Manning Avenue at Golden State Boulevard

- Widen the eastbound approach (Manning Avenue) to two left turn lanes, two through lanes, and one right turn lane (adding one left turn lane).

- Widen the westbound approach (Manning Avenue) to one left turn lane, three through lanes, and one right turn lane (adding one through lane and one right turn lane).

- Widen the northbound approach (Golden State Boulevard) to two left turn lanes, two through lanes, and one right turn lane (adding one left turn lane and one right turn lane).

South Avenue at Golden State Boulevard

- Widen the eastbound approach (South Avenue) to one left turn lane, one through lane, and one right turn lane (adding one left turn lane and one right turn lane).

- Widen the northbound approach to (Golden State Boulevard) to one left turn lane, two through lanes, and one right turn lane (adding one right turn lane).

- Widen the southbound approach (Golden State Boulevard) to one left turn lane and two through lanes with a shared right (adding one left turn lane).

Vine Street at Golden State Boulevard

- Widen the westbound approach (Vine Street) to one left turn lane and one through lane with a shared right (adding one left turn lane).

- Widen the northbound approach (Golden State Boulevard) to one left turn lane and two through lanes and one right turn lane (adding one left turn lane and one right turn lane).

- Widen the southbound approach (Golden State Boulevard) to one left turn lane and two through lanes with a shared right (adding one left turn lane).

Merced Street at Golden State Boulevard

- Widen the eastbound approach (Merced Street) to one left turn lane, one through lane, and one right turn lane (adding one right turn lane).

Mariposa Street at Golden State Boulevard

- Widen the northbound approach (Golden State Boulevard) to one left turn lane and two through lanes and one right turn lane (adding one left turn lane and one right turn lane).

- Widen the southbound approach (Golden State Boulevard) to one left turn lane and two through lanes with a shared right (adding one left turn lane).

For all locations where new turn lanes were recommended, a queuing analysis was conducted to determine the appropriate turn lane storage length. The recommended turn storage lengths for new turn lanes were incorporated into the project design concept. This analysis was conducted as follows:

- The results of the capacity analysis conducted by Synchro were reviewed and the goal was to provide the maximum of the following: (1) turn storage length equal to or greater than the 95th percentile queue result from Synchro or (2) turn storage length of equal to or greater than one foot per vehicle per hour per lane;

- Left turn storage lengths for turns from Golden State Boulevard in high-speed areas were typically recommended to be 300 feet in order to allow for deceleration of turning vehicles outside of the through lane;

- Turn lane lengths were typically rounded up to the nearest 100 feet; and

- Engineering judgment was used, where necessary to recommend turn storage lengths different from the specific guidelines described above.

Table 3.16-7 shows the recommended turn storage lengths (measured in feet) for turn lanes for the Future 2035 Build scenario.

Table 3.16-7
Recommended Future Year Build Golden State Boulevard Turn Storage Lengths

Cross Street	Northbound		Southbound		Eastbound		Westbound	
	Left	Right	Left	Right	Left	Right	Left	Right
Draper St[1]	100	100	100		75		50	
Sierra St	200	125	100	50	75		75	75
Stroud Ave	300	100	300					
Kamm/Bethel Ave	300	100	300					
Mountain View Ave	200	100	200	100	200	100	250	100
Saginaw Ave		100	300					
Dockery Ave	300							
Nebraska Ave		100					100	
2nd Street	100		100		75		75	
Floral Ave	125		125		75	200	300	
Highland Ave	50	50	100	75	150		200	
Dinuba Ave	175	100	175					
De Wolf Ave	200	100	200					
Manning Ave	300	100	300	200	200	225	275	200
Valley Dr	300			75				
Temperance Ave	175	100	150	150				
South Ave[1]	150	100	150		100	200		
Vine St	200	100	200	100			100	
Merced St	225	75	150	75	100	200	75	
Mariposa St	150	100	150					
Adams Ave[1]	200	150	200		50		50	

Notes:
1: Proposed storage lengths for conventional intersection.
Pocket lengths measured in feet

Source: VRPA Technologies, Inc., 2011(d)

Table 3.16-8 shows the intersection LOS for future year conditions with implementation of the above recommended improvements. The intersections of Nebraska Avenue, Temperance Avenue, South Avenue, and Vine Street at Golden State Boulevard were not mitigated to an acceptable level of service because they do not meet signal warrants in Future Year 2035. Some mitigation measures were recommended for these locations and the delay experienced was reduced, however an acceptable level of service was not achieved. Once these locations meet signal warrants, and traffic signals are installed, it is expected they will operate at acceptable levels of service.

Table 3.16-8
Future Year Build Intersection Operations

Intersection	Peak Hour	Future Year 2035	
		Delay	LOS
1. Draper St/Simpson Street [1]	AM	38.5	D
	PM	41.4	D
2. Sierra St/Simpson Street [1]	AM	49.5	D
	PM	51.5	D
3. Stroud Ave/Golden State Blvd [2]	AM	13.6	B
	PM	22.7	C
4. Kamm/Bethel Ave/Golden State Blvd[3]	AM	16.9	B
	PM	17.4	B
5. Mountain View Ave/Golden State Blvd [1]	AM	33.2	D
	PM	47.5	D
6. Saginaw Ave/Golden State Blvd [4]	AM	11.2	B
	PM	16.0	C
7. Dockery Ave/Golden State Blvd [4]	AM	10.2	B
	PM	11.8	B
8. Nebraska Ave/Golden State Blvd [2]	AM	16.3	C
	PM	**55.5***	**F**
9. 2nd St/Whitson St[1]	AM	35.4	D
	PM	45.7	D
10. Thompson Ave/Whitson St[1]	AM	22.2	C
	PM	34.5	C
11. Floral Ave/Whitson St[1]	AM	37.6	D
	PM	49.7	D
12. Highland Ave/Golden State Blvd[1]	AM	43.9	D
	PM	50.3	D
13. Dinuba Ave/Golden State Blvd[2]	AM	11.0	B
	PM	13.0	B
14. De Wolf Ave/Golden State Blvd[2]	AM	5.4	A
	PM	12.0	B
15. Manning Ave/Golden State Blvd[1]	AM	51.0	D
	PM	46.3	D
16. Valley Drive/Golden State Blvd[4]	AM	16.6	C
	PM	24.7	C
17. Temperance Ave/Golden State Blvd [2]	AM	**26.7***	**D***
	PM	**58.6***	**F***
18. South Ave/Golden State Blvd[2]	AM	**34.3***	**D***
	PM	**49.6***	**E***
19. Vine Street/Golden State Blvd[2]	AM	**40.2***	**E***
	PM	**152.3***	**F***
20. Merced St/Golden State Blvd[1]	AM	33.6	C
	PM	34.8	C
21. Mariposa St/Golden State Blvd[2]	AM	14.5	B
	PM	22.5	C
22. Adams Ave/Golden State Blvd[1]	AM	27.7	C
	PM	26.1	C

Notes:
Delay is measured in seconds
LOS = Level of Service/Bold denotes LOS standard has been exceeded
(1) Signalized Intersection. Delay results show the average delay for the entire intersection.
(2) Two-Way Stop Intersection. Delay results show the delay for the worst movement.
(3) Four-Way Stop Intersection. Delay results show the average delay for the entire intersection.
(4) One-Way Intersection. Delay results show the delay for the worst movement.
* Does not meet signal warrants

Source: VRPA Technologies, Inc., 2011(d)

Figure 3-3a and Figure 3-3b in the Traffic Technical Report shows the mitigated lane geometry based on the recommended improvements listed above.

RAILROAD QUEUING ANALYSIS

Future Year 2035 No Build Railroad Crossing Queuing Analysis

Table 3.16-10 provides a queue length summary for all intersection lane approaches desiring to cross the adjacent Union Pacific at-grade railroad crossing for the future year no build condition. The queuing analyses for the study intersections were estimated assuming that railroad crossing gates would block traffic for approximately two minutes. This time frame was based on field observations conducted by VRPA staff. Based on information provided by Union Pacific, there are approximately one to two train events per hour. The resulting total queue (measured in feet) experienced in the AM and PM peak hour is shown in Table 3.16-7. Total queue was calculated using the following formula:

$$\text{Total Queue} = \frac{\text{Hourly Volume} * (4 \text{ minutes}/60 \text{ minutes}) * 25 \text{ ft} * 1.05}{\text{\# of lanes}}$$

The hourly volume is multiplied by the percentage of time within the hour that the railroad crossing gates are down multiplied by 25 feet per car multiplied by 1.05 to account for truck traffic. The number of lanes for the approach then divides the product.

Future Year 2035 Build Railroad Crossing Queuing Analysis

Table 3.16-11 provides a queue length summary for all intersection lane approaches desiring to cross the adjacent Union Pacific at-grade railroad crossing for the future year build condition. The queuing analyses for the study intersections were estimated assuming that railroad crossing gates would block traffic for approximately two minutes. The resulting total queue (measured in feet) experienced in the AM and PM peak hour is shown in Table 3.16-11.

Table 3.16-9
Future Year No Build Maximum Queue Lengths from Train Events

Intersection	Approach	Future Year No Build Conditions	
		Total AM Queue[1]	Total PM Queue[1]
Draper St/Simpson St	EB Thru	832	549
	WB Left	39	58
	WB Thru	902	610
	NB Right	23	19
	SB Left	111	127
Sierra St/Simpson St	EB Thru	658	632
	WB Left	123	134
	WB Thru	505	480
	WB Right	67	90
	NB Right	111	127
	SB Left	111	190
Stroud Ave/Golden State Blvd	EB Thru	30	72
	WB Thru	380	241
	NB Right	30	53
	SB Left	183	260
Kamm/Bethel Ave/Golden State Blvd	EB Thru	461	586
	WB Thru	682	542
	NB Right	65	39
	SB Left	49	149
Mountain View Ave/Golden State Blvd	EB Thru	635	748
	WB Left	7	23
	WB Thru	900	845
	WB Right	46	80
	NB Right	26	12
	SB Left	72	160
Saginaw Ave/Golden State Blvd	WB Thru	65	55
	NB Right	19	42
	SB Left	26	23
Nebraska Ave/Golden State Blvd	EB Thru	49	174
	WB Left	104	100
	WB Thru	266	209
	NB Right	100	137
	SB Left	91	232
Highland Ave/Golden State Blvd	EB Thru	378	858
	WB Left	195	179
	WB Thru	779	802
	NB Right	100	274
	SB Left	91	53
Dinuba Ave/Golden State Blvd	EB Thru	42	93
	WB Thru	197	392
	NB Right	88	157
	SB Left	267	909
De Wolf Ave/Golden State Blvd	EB Thru	12	83
	WB Thru	56	427
	NB Right	28	69
	SB Left	58	51

Table 3.16-9
Future Year No Build Maximum Queue Lengths from Train Events (Continued)

Intersection	Approach	Future Year No Build Conditions	
		Total AM Queue[1]	Total PM Queue[1]
Manning Ave/Golden State Blvd	EB Thru	675	995
	WB Left	11	12
	WB Thru	1,264	876
	WB Right	147	59
	NB Right	11	26
	SB Left	107	237
Temperance Ave/Golden State Blvd	EB Thru	40	35
	WB Thru	197	266
	NB Right	123	206
	SB Left	33	65
South Ave/Golden State Blvd	EB Thru	19	160
	WB Thru	239	164
	NB Right	12	11
	SB Left	65	118
Vine Ave/Golden State Blvd	EB Thru	134	243
	WB Left	77	134
	WB Thru	193	172
	NB Right	123	46
	SB Left	202	206
Merced Ave/Golden State Blvd	EB Thru	841	740
	WB Left	49	95
	WB Thru	730	716
	NB Right	62	130
	SB Left	19	35
Mariposa Ave/Golden State Blvd	EB Thru	69	102
	WB Thru	106	134
	NB Right	19	19
	SB Left	16	33
Adams Ave/Golden State Blvd	EB Thru	412	649
	WB Left	104	104
	WB Thru	746	357
	NB Right	53	88
	SB Left	95	111

Notes:
Queue is measured in feet
(1) Maximum queue when train departs from intersection area.

Source: VRPA Technologies, Inc., 2011(d)

Table 3.16-10
Future Year Build Maximum Queue Lengths from Train Events

Intersection	Approach	Future Year Build Conditions	
		Total AM Queue[1]	Total PM Queue[1]
Draper St/Simpson St	EB Thru	832	549
	WB Left	39	58
	WB Thru	902	610
	NB Right	23	19
	SB Left	111	127
Sierra St/Simpson St	EB Thru	658	632
	WB Left	123	134
	WB Thru	505	480
	WB Right	67	90
	NB Right	111	127
	SB Left	111	190
Stroud Ave/Golden State Blvd	EB Thru	30	72
	WB Thru	380	241
	NB Right	30	53
	SB Left	183	260
Kamm/Bethel Ave/Golden State Blvd	EB Thru	461	586
	WB Thru	682	542
	NB Right	65	39
	SB Left	49	149
Mountain View Ave/Golden State Blvd	EB Thru	635	748
	WB Left	7	23
	WB Thru	900	845
	WB Right	46	80
	NB Right	26	12
	SB Left	72	160
Saginaw Ave/Golden State Blvd	WB Thru	65	55
	NB Right	19	42
	SB Left	26	23
Nebraska Ave/Golden State Blvd	EB Thru	49	174
	WB Left	104	100
	WB Thru	266	209
	NB Right	100	137
	SB Left	91	232
Highland Ave/Golden State Blvd	EB Thru	378	858
	WB Left	195	179
	WB Thru	779	802
	NB Right	100	274
	SB Left	91	53

Notes:
Queue is measured in feet
(1) Maximum queue when train departs from intersection area.
Source: VRPA Technologies, Inc., 2011(d)

Table 3.16-10
Future Year Build Maximum Queue Lengths from Train Events (Continued)

Intersection	Approach	Future Year Build Conditions	
		Total AM Queue[1]	Total PM Queue[1]
Dinuba Ave/Golden State Blvd	EB Thru	42	93
	WB Thru	197	392
	NB Right	88	157
	SB Left	267	909
De Wolf Ave/Golden State Blvd	EB Thru	12	83
	WB Thru	56	427
	NB Right	28	69
	SB Left	58	51
Manning Ave/Golden State Blvd	EB Thru	675	995
	WB Left	11	12
	WB Thru	1,264	876
	WB Right	147	59
	NB Right	11	26
	SB Left	107	237
Temperance Ave/Golden State Blvd	EB Thru	40	35
	WB Thru	197	266
	NB Right	123	206
	SB Left	33	65
South Ave/Golden State Blvd	EB Thru	19	160
	WB Thru	239	164
	NB Right	12	11
	SB Left	65	118
Vine Ave/Golden State Blvd	EB Thru	134	243
	WB Left	77	134
	WB Thru	193	172
	NB Right	123	46
	SB Left	202	206
Merced Ave/Golden State Blvd	EB Thru	841	740
	WB Left	49	95
	WB Thru	730	716
	NB Right	62	130
	SB Left	19	35
Mariposa Ave/Golden State Blvd	EB Thru	69	102
	WB Thru	106	134
	NB Right	19	19
	SB Left	16	33
Adams Ave/Golden State Blvd	EB Thru	412	649
	WB Left	104	104
	WB Thru	746	357
	NB Right	53	88
	SB Left	95	111

Notes:
Queue is measured in feet
(1) Maximum queue when train departs from intersection area.

Source: VRPA Technologies, Inc., 2011(d)

Summary of Impacts

The project study intersections are currently operating at acceptable Level of Service (LOS) during the AM and PM peak period with the exception of the intersection of Manning Avenue / Golden State Boulevard which is operating at LOS F and E during the AM peak hour and PM peak hour, respectively. The project study street segments are currently operating at acceptable LOS. The project was analyzed under existing conditions with the project (Existing Plus Build) and the resulting LOS were shown in Tables 3.16-3 and 3.16-4. Under the Existing Plus Build scenario, the analysis showed that none of the study intersections or segments would operate worse than the minimum level of service. Impacts would be less than significant.

Future year conditions were analyzed for two scenarios, without the project (No Build) and with the project (Build). Under the Future Year No Build scenario, 10 intersections are projected to operate below acceptable LOS as shown in Table 3.16-5. However, four of those intersections do not meet signal warrants. Under the Future Year No Build scenario, none of the study segments would operate worse than the minimum level of service. Under the Future Build scenario, the proposed project improvements would be implemented and the majority of the intersections would operate at acceptable LOS. However, as shown in Table 3.16-8 , the intersections of Nebraska Avenue, Temperance Avenue, South Avenue, and Vine Street at Golden State Boulevard would not operate at acceptable LOS because they do meet signal warrants in Future Year 2035. However, once these locations meet signal warrants, and traffic signals are installed, it is expected they would operate at acceptable levels of service. Impacts would be less than significant.

Future year queue lengths from train events were also analyzed with (Build) and without (No Build) the project. As shown in Tables 3.16-10 and 3.16-11, the queue lengths would not be substantially different, although the project (Build) scenario showed some reduced queue lengths. Accordingly, impacts would be less than significant.

Conclusion: The project would have less ***than significant impacts*** under existing and future year conditions.

Mitigation Measures: None are required.

Conflict with a Congestion Management Program/LOS and Travel Demand Measures (b): The Fresno COG is the designated Regional Transportation Planning Agency for Fresno County and maintains the Regional Transportation Plan (RTP). The RTP prioritizes transportation needs in Fresno County for the next 25 years. The 2011 RTP provides goals, objectives, and policies for improving mobility on Fresno County's streets, highways, transit system, and bicycle/pedestrian facilities. Some of the goals of the RTP include improved bicycle pedestrian facilities and safety; transit service and facilities; land uses; traffic flow; and system maintenance and expansion. The project is identified in the Regional Transportation Program (RTP) and Federal Transportation Improvement Program (FTIP). The project is identified as project FRE111334 in the Adopted 2011 RTP and extends from American Avenue to the Tulare County Line. Project FRE111334 is described in the Fresno COG's Adopted 2011 RTP, Financially Constrained Federal Transportation Improvements Program Projects, on page 6-30, as "Corridor Improvements from American to Tulare County Line (Measure C Project F in the Rural Regional Program)."

The project was evaluated to determine if it would have significant impacts on LOS standards established by the cities of Fowler, Selma, and Kingsburg. As shown in Impact (a), the project would improve LOS for study intersections and segments, with the exception of the intersections where the signal warrants have not been met. However, once those intersections meet signal warrants it is expected that the intersections would operate at acceptable LOS.

Accordingly, the project would not conflict with applicable plans, ordinances, or policies of the RTP or General Plans of the cities of Fowler, Selma, and Kingsburg. Impacts would be less than significant.

Conclusion: This impact would be ***less than significant***.

Mitigation Measures: None are required.

Air Traffic Patterns (c): The project would not involve use of air transit, nor is it expected to cause any change in air traffic patterns. Within the City of Selma, the project would fall within the boundaries of an airport land use plan. The project area falls within the secondary review area airport overlay zone. However, the project would not construct any structures that could alter air traffic patterns. As such, no impacts would occur.

Conclusion: There would be ***no impacts***.

Mitigation Measures: None are required.

Roadway Safety (d): The project would be constructed in accordance with applicable standards for roadway construction, including geometrics (lane curvature and turning radii), number and widths of travel and turn lanes, signalization and signage, bikeways, sidewalks, and trails. As such, the project does not propose to make changes to roadways that would create road hazards.

Conclusion: This impact would be ***less than significant.***

Mitigation Measures: None are required

Emergency Access (e): No facilities are proposed as part of the project that would change emergency access to the project site or that would affect access to nearby uses. Because no changes in emergency access or access to nearby uses would occur as a result of the project, there would be no impact associated with emergency vehicle access.

Conclusion: This impact would be l***ess than significant***.

Mitigation Measures: None are required.

Alternative Transportation (f): The project is identified in Fresno County' RTP and includes proposed improvements to enhance pedestrian and bicycle connectivity. As such, the project would be consistent with alternative transportation policies, plans, and program. The project would not conflict with the implementation of alternative transportation. No impacts would occur.

Conclusion: The project would have ***no impact*** on alternative transportation.

Mitigation Measures: None are required.

3.17 UTILITIES/SERVICE SYSTEMS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☒	☐	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☒	☐	☐
e) 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?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Setting

WATER SUPPLIES AND SUPPLY

The City of Fowler Public Works Department – Water Division provides potable water service within the City of Fowler.

California Water Service Company (CalWater) provides potable water service within the City of Selma.

The City of Kingsburg Water Department provides potable water service within the City of Kingsburg.

WASTEWATER COLLECTION AND TREATMENT

Wastewater treatment and disposal services are provided by the Selma-Kingsburg-Fowler County Sanitation District (SKF) for the cities of Fowler, Selma and Kingsburg.

SOLID WASTE COLLECTION AND DISPOSAL

Within the City of Fowler, solid waste collection and disposal is provided by Western USA Waste of California, Inc.

With the City of Selma, solid waste collection and disposal is provided by Selma Disposal and Recycling, Inc.

Within the City of Kingsburg, Waste Management provides solid waste collection and disposal services.

Response

Water and Wastewater (a, b, e): During construction, portable restroom facilities would be provided by the construction contractor for the construction workers. Wastewater would be contained within portable toilet facilities and disposed of at an approved site according to regulations. The project proponent would contract with a local service provider to dispose of the wastewater at an approved wastewater treatment plant. No other sources of wastewater are anticipated during the proposed project construction activities and no wastewater would be generated upon completion of construction. Water would be required for dust control purposes during construction, but would be acquired from adjacent sources with existing entitlements to water, and no new entitlements will be required. The project would require irrigation water for landscaping purposes, but the water would be secured from existing entitlements. The negligible amount of wastewater generated during construction would not affect the wastewater treatment facilities' ability to meet their applicable wastewater treatment requirements. The proposed project would not require the construction of new water or wastewater treatment facilities. All applicable local, state, and federal requirements and best management practices would be incorporated into construction of the project.

Conclusion: Impacts would be ***less than significant***.

Mitigation Measures: None are required.

Storm Water (c): The project would alter existing drainage conditions. However, Mitigation Measure #3.9-3 requires the preparation of a design-level drainage plan to ensure that stormwater impacts are reduced to a less than significant level.

Conclusion: The project's stormwater impact is ***potentially significant***.

Mitigation Measures: Implement Mitigation Measure #3.9-3.

Effectiveness of Measure #3.9-3: This impact would be ***less than significant with mitigation incorporated.***

Water Service (d): The project would require minimal amounts of water for dust control purposes during construction. During construction, all non-potable water required would be supplied by truck from existing entitlements. During operation, the project will require the use of water onsite for irrigation purposes. Although the quantity of water required would be minimal, the groundwater basin is in a state of overdraft. Therefore, the project has incorporated mitigation measures in the form of water conservation and low impact design to reduce the impact to a less than significant level.

Conclusion: The project may have ***a potentially significant impact*** on the Cities' and County's ability to serve existing water users.

Mitigation Measures: Implement Mitigation Measures #3.9-1 and 3.9-2.

Effectiveness of Measure #3.9-1 and 3.9-2: This impact would be ***less than significant with mitigation incorporated.***

Solid Waste (f, g): The project will include some demolition of existing infrastructure, including pavement and asphalt and construction of intersection and roadway improvements. These activities are expected to generate construction debris including concrete, metal, and asphalt. Solid waste materials will be transported to a permitted landfill in Fresno County. In compliance with state, federal, and local regulations, materials would be recycled or composted to the extent possible.

Conclusion: The project would not generate the need for new solid waste facilities and the impacts would be ***less than significant***.

Mitigation Measures: None are required.

3.18 MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have the potential to: substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	☐	☐	☒	☐
c) Have possible environmental effects that are individually limited but cumulatively considerable? "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probably future projects?	☐	☐	☒	☐
d) Include environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Response

(a) The proposed project includes mitigation measures which reduce environmental impacts to a less than significant level. Although the biological survey revealed no occurrence of threatened or endangered species, the potential exists for certain species to occur in the project area. The potential for significant impact can be reduced to a less than significant level by implementing measures as outlined under Section 3.4 so that no long-term affects to any species will occur.

(b) The project is in response to priorities for transportation related projects, as outlined by the Fresno County Federal Transportation Improvement Program. There will be no impacts to long term environmental goals.

(c) CEQA Guidelines Section 15064(i) states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. Due to the nature and location of the project and consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. The project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., an increase in population that could lead to an increased need for housing, increase in traffic, air pollutants, etc).

(d) The analyses of environmental issues contained in this Initial Study indicate that the project is not expected to have substantial impact on human beings, either directly or indirectly. Mitigation measures have been incorporated in the project design to reduce all potentially significant impacts to less than significant.

SECTION FOUR

MITIGATION MONITORING PLAN

SECTION FOUR – MITIGATION MONITORING PLAN

State and local agencies are required by Section 21081.6 of the California Public Resources Code to establish a monitoring and reporting program for all projects which are approved and which require CEQA processing.

Local agencies are given broad latitude in developing programs to meet the requirements of Public Resources Code Section 21081.6. The mitigation monitoring program outlined in this document is based upon guidance issued by the Governor's Office of Planning and Research.

The mitigation monitoring and reporting program for the proposed project corresponds to mitigation measures outlined in the project Mitigated Negative Declaration (MND). The Program summarizes the environmental issues identified in the MND, the mitigation measures required to reduce each potentially significant impact and the agency or agencies responsible for monitoring and reporting on the implementation of the mitigation measures.

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
3.1 Aesthetics				
3.1-1	Prior to issuance of construction permits for the project, the project proponent shall provide a lighting plan to the lead agency or designee for review and approval. The plan shall include provisions to ensure that outdoor lighting is designed so that potential glare or light spillover to surrounding land uses is minimized through appropriate site design and shielding of light fixtures. Exterior lighting shall not create glare for neighboring properties but shall provide adequate onsite lighting for safety and security purposes. The lead agency or designee will review the final design plans to ensure that all lighting is directed downward and away from neighboring properties. This mitigation measure does not preclude the use of small-scale decorative lighting does not spill over onto adjacent property. Each jurisdiction's improvement standards will remain in effect.	Project Proponent	Lead Agency or Designee	Less Than Significant
3.4 Biological Resources				
3.4-1	To reduce potential impacts to western mastiff bats and/or pallid bats that could occur during construction activities, the following measures shall be implemented prior to and during construction activities to reduce impacts to a level that is less than significant. The Lead Agency or Designee shall determine the applicability of the following measures depending on specific construction activities and shall implement such measures when required. ▪ Prior to the removal of trees, or construction activities within 100 feet of the Corridor, the project applicant will conduct a survey to determine the presence of roosting	Project Proponent	CDFG, Lead Agency or Designee	Less Than Significant

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	bats. The survey should be conducted 14 days prior to the start of the proposed activity. A Survey shall be conducted during the day to determine potential signs of bats (e.g., white wash, guano) and at dusk, when bats would be expected to be emerging from roost sites. A Survey will be conducted by a wildlife biologist qualified to identify the species of bats using these roosts. If the survey determines that no bats are roosting on or in structures, bridges or trees, then no further mitigation is required. ▪ If roosting bats are present, the biologist will determine if the roost is a day roost or is a maternal roost. If the roost is determined to be a maternal roost, construction activities that cause the abandonment of the maternal roost or cause harm to bats (e.g., diesel fumes being trapped under the bridges) will be prohibited until the biologist determines that the bat pups have left the roost and are able to fend for themselves. The biologist will consult with the California Department of Fish and Game (CDFG) for further guidance on avoiding and minimizing impacts on a maternal colony. ▪ If bats are determined to be roosting within the proposed project area, the above measures will be implemented before demolition or construction occurs. If it is determined that the roost is a day roost, the wildlife biologist who conducted the preconstruction survey will recommend appropriate measures to exclude the bats from roosting. These include installing exclusion devices (i.e., lightweight polypropylene netting [<1/6-			

<table>
<tr><th>Impact Number</th><th>Mitigation Measure</th><th>Implementing Agency</th><th>Monitoring Agency</th><th>Level of Significance After Mitigation</th></tr>
<tr><td></td><td>inch mesh], plastic sheeting, tube-type excluders, etc.) to prevent roosting bats from being in the project area when construction occurs. The biologist will also recommend, through consultation with the CDFG and other bat experts, appropriate replacement roosting habitat for the displaced bats.</td><td></td><td></td><td></td></tr>
<tr><td>3.4-2</td><td>Because there is the potential for San Joaquin kit foxes to occur on site, the United States Fish and Wildlife Service's (USFW) Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance shall be followed. The measures that are listed below have been excerpted from those guidelines and will protect San Joaquin kit foxes from direct mortality and from destruction of active dens and natal or pupping dens. The Lead Agency or Designee shall determine the applicability of the following measures depending on specific construction activities and shall implement such measures when required.

▪ Pre-construction surveys shall be conducted no fewer 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 or American badger. Exclusion zones shall be placed in accordance with USFWS Recommendations using the following:

<table><tr><td>Potential Den</td><td>50 foot radius</td></tr><tr><td>Known Den</td><td>100 foot radius</td></tr><tr><td>Natal/Pupping Den</td><td>Contact U.S. Fish and</td></tr></table></td><td>Project Proponent</td><td>CDFG, Lead Agency or Designee</td><td>Less Than Significant</td></tr>
</table>

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation

(Occupied and Unoccupied)	Wildlife Service for guidance
Atypical Den	50 foot radius

If dens must be removed, they must be appropriately monitored and excavated by a trained wildlife biologist. Replacement dens will be required. Destruction of natal dens and other "known" kit fox dens must not occur until authorized by USFWS.

- Project-related vehicles shall observe a 20-mph speed limit in all project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. Nighttime construction shall be avoided, unless the construction area is appropriately fenced to exclude kit foxes. The area within any such fence must be determined to be uninhabited by San Joaquin Kit foxes prior to initiation of construction. Off-road traffic outside of designated project areas shall be prohibited.

- To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of the project, all excavated, steep-walled holes or trenches more than 2 feet deep should be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the procedures under numbers 8 and 9 of this section must be followed.

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	▪ Kit foxes are attracted to den-like structures such as pipes and may enter stored pipe, becoming trapped or injured. 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 shall be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in anyway. If a kit fox is discovered inside a pipe, that section of pipe should not be moved until the USFWS has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved once to remove it from the path of construction activity, until the fox has escaped. ▪ All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in closed containers and removed at least once a week from a construction or Project Site. ▪ No firearms shall be allowed on the project site. ▪ To prevent harassment, mortality of kit foxes or destruction of dens by dogs or cats, no pets shall be permitted on Project Sites. ▪ A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox, or who finds a dead, injured or entrapped individual. The representative's name and telephone number shall be provided to the USFWS and CDFG.			

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	▪ In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape, or the USFWS and CDFG should be contacted for advice. ▪ Any contractor, employee(s), or military or agency personnel who inadvertently kills or injures a San Joaquin kit fox shall immediately report the incident to their representative. This representative shall contact the CDFG immediately in the case of a dead, injured or entrapped kit fox. The CDFG contact for immediate assistance is State Dispatch at (916) 445 0045. They will contact the local warden or biologist. ▪ The Sacramento Fish and Wildlife Office and CDFG will be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during project related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The USFWS contact is the Chief of the Division of Endangered Species, 2800 Cottage Way, Suite W2605, Sacramento, CA 95825-1846, and (916) 414-6620. The CDFG contact is Mr. Ron Schlorff at 1416 9th Street, Sacramento, CA 95814, (916) 654-4262.			
3.4-3	To reduce project related impacts to active bird nests and to reduce the potential for construction activities to interrupt breeding and rearing behaviors of birds, the following measures shall be implemented prior to and during construction activities to reduce impacts to a level that is less	Project Proponent	CDFG, Lead Agency or Designee	Less Than Significant

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	than significant. The Lead Agency or Designee shall determine the applicability of the following measures depending on specific construction activities and shall implement such measures when required. ▪ A pre-construction survey shall be conducted to determine the presence of nesting birds if ground clearing or construction activities will be initiated during the breeding season (February 15 through September 15). The project site and potential nesting areas within 500 feet of the site shall be surveyed 14 to 30 days prior to the initiation of construction. Surveys will be performed by a qualified biologist or ornithologist to verify the presence or absence of nesting birds. Construction shall not occur within a 500 foot buffer surrounding nests of raptors or a 250 foot buffer surrounding nests of migratory birds. If construction within these buffer areas is required or if nests must be removed to allow continuation of construction, then approval will be obtained from CDFG. ▪ All trees which are suitable for Swainson's hawk nesting that are within 2,640 feet of construction activities shall be inspected for nests by a qualified biologist. ▪ If potential Swainson's hawk nests are located, surveys to determine whether Swainson's hawks use those nests will be determined by conducting surveys at the following intensities, depending upon dates of initiation of construction.			

Construction start	Survey period	Number of surveys	Timing
1 January to 20 March	1 January to 20 March	1	All day
21 March to 24 March	1 January to 20 March	1	All day
	21 March to 24 March	Up to 3	Sunrise to 1000 and 1600 to sunset
24 March to 5 April	1 January to 20 March	1	All day
	21 March to 5 April	3	Sunrise to 1000 and 1600 to sunset
6 April to 9 April	21 March to 5 April	3	Sunrise to 1000 and 1600 to sunset
	6 April to 9 April	Up to 3	Sunrise to 1000 and 1600 to sunset
	1 January to 20 March	1 (if all 3 surveys are performed between 6 and 9 April, then this survey not needed	All day
10 April to 30 July	21 March to 5 April	3	Sunrise to 1000 and 1600 to sunset
	6 April to 20 April	3	Sunrise to 1200 and 1630 to sunset
31 July to 15 September	6 to 20 April	3	Sunrise to 1200 and 1630 to sunset
	10 to 30 July	3	Sunrise to 1200 and 1600 to sunset

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	A nest can be eliminated as a potential Swainson's hawk nest if another species of raptor is using the nest; ▪ If Swainson's hawks are detected to be nesting in trees within 600 feet of the construction area, construction will not occur within this zone until after young Swainson's			

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	hawks have fledged (this usually occurs by early June). The nest will be monitored by a qualified biologist to determine fledging date. If Swainson's hawks are found within the project area, the project site would be considered foraging habitat and compensation for foraging habitat would be required by CDFG at a ratio of 0.75 to 1 (0.75 acre for every 1.0 acre adversely affected). ▪ If other raptors are found nesting within 250 feet of the construction area, construction will be postponed until after young have fledged. The date of fledging will be determined by a qualified biologist. If construction cannot be delayed within this zone, the CDFG will be consulted and alternative protection measures required by the CDFG will be followed. ▪ The removal of trees shall not occur during the breeding season (February 1st to September 15th). Trees slated for removal during the breeding season shall be surveyed by a qualified biologist prior to removal to ensure that there are no nesting birds occupying the tree.			
3.4-4	Prior to construction the project proponent shall ensure that buffer areas of up to 100 feet are provided for work occurring near all canals and ditches. The buffer area shall be shown on the applicable construction design maps. The implementing agency/local jurisdiction shall be responsible for reviewing and approving the construction maps with the required buffer area. If a 100 foot avoidance area cannot be	Project Proponent	CDFG, Lead Agency or Designee	Less Than Significant

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	maintained during construction, a discharge permit and SWPPP shall be prepared for the specific project component. The Fresno COG shall be provided with documentation to show that this mitigation measure has been implemented.			
3.5 Cultural Resources				
3.5-1	Although there is no recorded evidence of historic or archaeological sites on the project site, there is the potential during project-related excavation and construction for the discovery of cultural resources. The project proponent shall incorporate into the construction contract(s) for the project a provision that includes the following measures: ▪ Before initiation of construction or ground-disturbing activities associated with the project, the project proponent for all project phases shall require all construction personnel to be alerted to the possibility of buried cultural resources, including historic, archeological and paleontological resources; ▪ The general contractor and its supervisory staff shall be responsible for monitoring the construction project for disturbance of cultural resources; and ▪ If a potentially significant historical, archaeological, or paleontological resource, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains or trash deposits are encountered during subsurface construction activities (i.e., trenching, grading), all construction activities	Project Proponent	Lead Agency or Designee	Less Than Significant

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	within a 100-foot radius of the identified potential resource shall cease until a qualified archaeologist evaluates the item for its significance and records the item on the appropriate State Department of Parks and Recreation (DPR) forms. The archaeologist shall determine whether the item requires further study. If, after the qualified archaeologist conducts appropriate technical analyses, the item is determined to be significant under California Environmental Quality Act, the archaeologist shall recommend feasible mitigation measures, which may include avoidance, preservation in place or other appropriate measure, as outlined in Public Resources Code section 21083.2. The lead agency or designee shall implement said measures.			
3.5-2	The project proponent shall incorporate into the construction contract(s) for the project a provision that includes the following measure: If ground-disturbing activities uncover previously unknown human remains, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed: There shall be no further excavation or disturbance of the area where the human remains were found or within 50 feet of the find until the Fresno County or local agency Coroner is contacted. Duly authorized representatives of the Coroner shall be permitted onto the project site and shall take all actions consistent with Health and Safety Code Section 7050.5 and Government Code Section 27460, et seq.	Project Proponent	Lead Agency or Designee	Less Than Significant

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	Excavation or disturbance of the area where the human remains were found or within 50 feet of the find shall not be permitted to re-commence until the Coroner determines that the remains are not subject to the provisions of law concerning investigation of the circumstances, manner, and cause of any death. If the Coroner determines the remains are Native American, the Coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98.			
3.7 Greenhouse Gas Emissions				
3.7-1	Prior to issuance of construction and/or encroachment permits, the project proponent shall incorporate the GHG reduction measures outlined below. The lead agency or designee shall be responsible for reviewing and approving the final design plans. ▪ Ensure that construction equipment is properly sized for the task. ▪ Properly maintain construction equipment. ▪ Strictly prohibit unnecessary idling of internal combustion engines. ▪ Provide landscaping along the corridor that will reduce	Project Proponent	Lead Agency or Designee	Less Than Significant

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	surface warming, and through photosynthesis, decrease CO_2. ▪ Incorporate the use of energy efficient lighting, such as LED traffic signals. While LED bulbs (or balls) are more costly than incandescent bulbs, the LEDs last five to six years, compared to the one year average lifespan of the incandescent bulbs previously used. The LED bulbs themselves consume 10 percent of the electricity of traditional lights, which will also help reduce CO_2 emissions.			
3.9 Hydrology/Water Quality				
3.9-1	Prior to issuance of construction and encroachment permits for landscaping, the project proponent shall submit landscaping plans to the lead agency or designee for review and approval demonstrating that landscaping will comply with the requirements in the State of California Updated Model Water Efficient Landscape Ordinance (AB 1881). The landscaping plans shall identify outdoor irrigation water conservation measures, such as but not limited to: ▪ Drought-resistant vegetation; ▪ Irrigation systems employing the following features: • Drip irrigation; • Low-precipitation-rate sprinklers; • Bubbler/soaker systems; • Programmable irrigation controllers with automatic rain shutoff sensors and flow sensing capabilities;	Project Proponent	Lead Agency or Designee	Less Than Significant

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	• Matched precipitation rate nozzles that maximize the uniformity of the water distribution characteristics of the irrigation system; and • Conservative sprinkler spacings that minimize overspray onto paved surfaces. ▪ Hydrozones that keep plants with similar water needs in the same irrigation zone; ▪ Minimally or gently sloped landscaped areas to minimize runoff and maximize infiltration; and ▪ Organic topdressing mulch in non-turf areas to decrease evaporation and increase water retention.			
3.9-2	Prior to issuance of construction and encroachment permits, the project proponent shall incorporate into the their final design plan the low impact design features detailed in the Golden State Corridor Design Guidelines Manual to the maximum extent feasible. Additionally, the project proponent shall consider the implementation of the "Recycled Water Usage Final Techncial Report" recommendations as applicable and to the extent feasible. The implementing agency and/or local jurisdiction shall be responsible for reviewing and approving the final design plans.	Project Proponent	Lead Agency or Designee	Less Than Significant
3.9-3	Prior to issuance of construction and encroachment permits for landscaping, the project proponent shall submit design-level drainage plans demonstrating the provision of adequate	Project Proponent	Lead Agency or Designee	Less Than Significant

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	stormwater drainage facilities to the lead agency or designee for review and approval.			
3.12 Noise				
3.12-1	The lead agency or designee shall require that construction contractors comply with all applicable local regulations regarding noise suppression and attenuation and shall require that engine-driven equipment be fitted with mufflers according to manufacturers' specifications. The following requirements shall be included in the construction specifications: ▪ Limit construction activities to the hours of 7:00 a.m. to 7:00 p.m. on weekdays and the hours of 8:00 a.m. to 5:00 p.m. on weekends and federally recognized holidays except as required to alleviate traffic congestion or safety hazards; ▪ Locate fixed construction equipment such as compressors and generators at distances no less than 250 feet from sensitive receptors (including occupied residential property boundaries); ▪ Shroud or shield impact tools, and muffle or shield intake and exhaust ports on power construction equipment; ▪ Construction equipment using internal combustion engines shall be in proper tune; and ▪ Comply with Caltrans Standard Special Provisions	Project Proponent	Lead Agency or Designee	Less Than Significant

Impact Number	Mitigation Measure	Implementing Agency	Monitoring Agency	Level of Significance After Mitigation
	Section 5.1.			

SECTION FIVE

PERSONS AND SOURCES CONSULTED

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SECTION SIX

LIST OF PREPARERS

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APPENDICES

Appendix A

Design Guidelines Manual

Appendix B

30% Engineering Design Plans

Appendix C

Air Quality Study

Appendix D

Biological Report

Appendix E

Cultural Resources Report

Appendix F

Climate Change Assessment

Appendix G

Noise Study Report

Appendix H

Traffic Technical Report