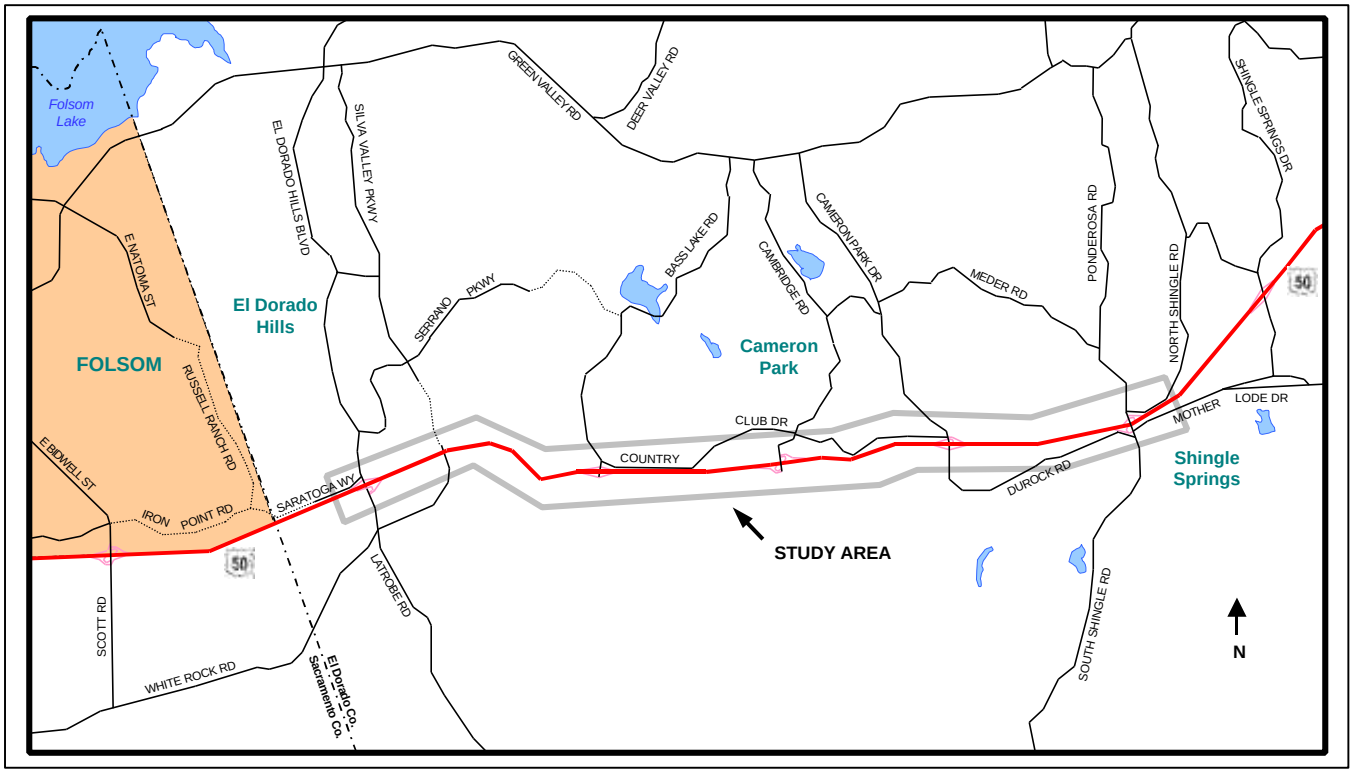
U.S. 50
High Occupancy Vehicle Lanes Project

El Dorado Boulevard to South Shingle Road/Ponderosa Road
KP 0.25/R14.67 (PM 0.16/R9.11)
El Dorado County, California

Draft
Initial Study/
Environmental Assessment



December 2001

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

SCH No.
(03-ED-50 KP 0.25/R14.67 (PM 0.16/R9.11)
(EA 3A7100)

NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

Description
The proposed project would add two high-occupancy vehicle (HOV, or carpool) lanes (one eastbound and one westbound) in the median of U.S. 50 in western El Dorado County from the El Dorado Hills Boulevard Undercrossing to South Shingle Road/Ponderosa Road Overcrossing [KP 0.25/R14.67 (PM 0.16/R9.11)]. The project also would include bridge modifications, lighting improvements, new overlay, and CHP enforcement areas.

Determination
An Initial Study has been prepared by the California Department of Transportation (Caltrans). On the basis of this study, it is determined that the proposed action will not have a significant effect upon the environment for the following reasons:

The project will have no effects on farmland, geology and soils, air quality, floodplain, the community, or public services and utilities. With proposed mitigation measures, the project will not result in impacts related to visual quality, biological resources (including wetlands), water quality, noise, or cultural resources. The project will not be inconsistent with any adopted community plan.

Proposed mitigation measures are:
- Construct two soundwalls (recommended).
- Mitigate for any elderberry shrubs impacted by the project.
- Install temporary protective fencing for other elderberry shrubs and for cultural resources in the project area.
- Replace affected oak trees.
- Compensate for impacted wetlands at a 2:1 ratio, if soundwalls are constructed.
- Remove Cliff Swallow nests at Clarksville Road Undercrossing and Bass Lake Road Undercrossing prior to construction.
- Enforce Caltrans Standard Specifications for air quality; water quality; and for the testing, removal, disposal, and handling of hazardous materials.

Mitigation monitoring will be in accordance with procedures outlined in Section 1-2.7 of Volume 1 of Caltrans Environmental Handbook.

_____

Kome Ajise, Division Chief
North Region Environmental Management
and Transportation Planning

SCH No. _____
03-ED-50
EA 03-3A7100

U.S. 50
High Occupancy Vehicle Lanes Project
El Dorado Boulevard to South Shingle Road/Ponderosa Road
KP 0.25/R14.67 (PM 0.16/R9.11)
El Dorado County, California

Initial Study/ Environmental Assessment

prepared by

U.S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration, and
STATE OF CALIFORNIA
Department of Transportation

Submitted Pursuant to: (State) Division 13 Public Resources Code
and (Federal) 42 USC 4332 (2)(C)

_____ _____
Date of Approval JOHN D. WEBB, Chief
North Region Environmental Services

_____ _____
Date of Approval MICHAEL G. RITCHIE
Division Administrator
Federal Highway Administration

PURPOSE OF THIS DOCUMENT

The purpose of this document is to present to the public the potential environmental impacts associated with the proposed project and its alternatives.

The California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA) prepared this Initial Study/ Environmental Assessment in compliance with both state and federal laws. The Initial Study has been prepared pursuant to the California Environmental Quality Act (CEQA) Guidelines Section 15063; and because the project is receiving federal as well as state funds, Caltrans prepared the Environmental Assessment as required by the National Environmental Policy Act, 42 USC 4332(2)(C).

Caltrans is concerned about how each of its projects could impact the environment. Laws and regulations provide guidelines Caltrans follows for minimizing project impacts to the environment. Thus, the proposed project is intended to accomplish its objectives while avoiding, minimizing, or mitigating impacts to environmental and community resources.

Comments regarding the circulation of this document may be addressed to:

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1.0 NEED AND PURPOSE FOR THE PROPOSED ACTION

1.1 Proposal to Widen U.S. 50

The proposed project would add two high-occupancy vehicle (HOV, or carpool) lanes (one eastbound and one westbound) in the median of U.S. 50 in western El Dorado County from the El Dorado Hills Boulevard Undercrossing to South Shingle Road/Ponderosa Road Overcrossing [KP 0.25/R14.67 (PM 0.16/R9.11)] (Figure 1). Study of HOV lanes within the project area was funded by the Regional Transportation Improvement Program. The El Dorado County Transportation Commission (EDCTC) initiated study of the project. The estimated project capital cost is from $32 million to $39.9 million, depending on construction scenario (see "Phasing" discussion, page 15). Construction funds would be programmed through the State Transportation Improvements Program (STIP). The project is a Category 4A project because it would increase traffic capacity substantially but would not require a revised freeway agreement. No funds are programmed beyond this environmental compliance phase. The project would require approximately two construction seasons to construct.

1.2 Need for the Proposed Project

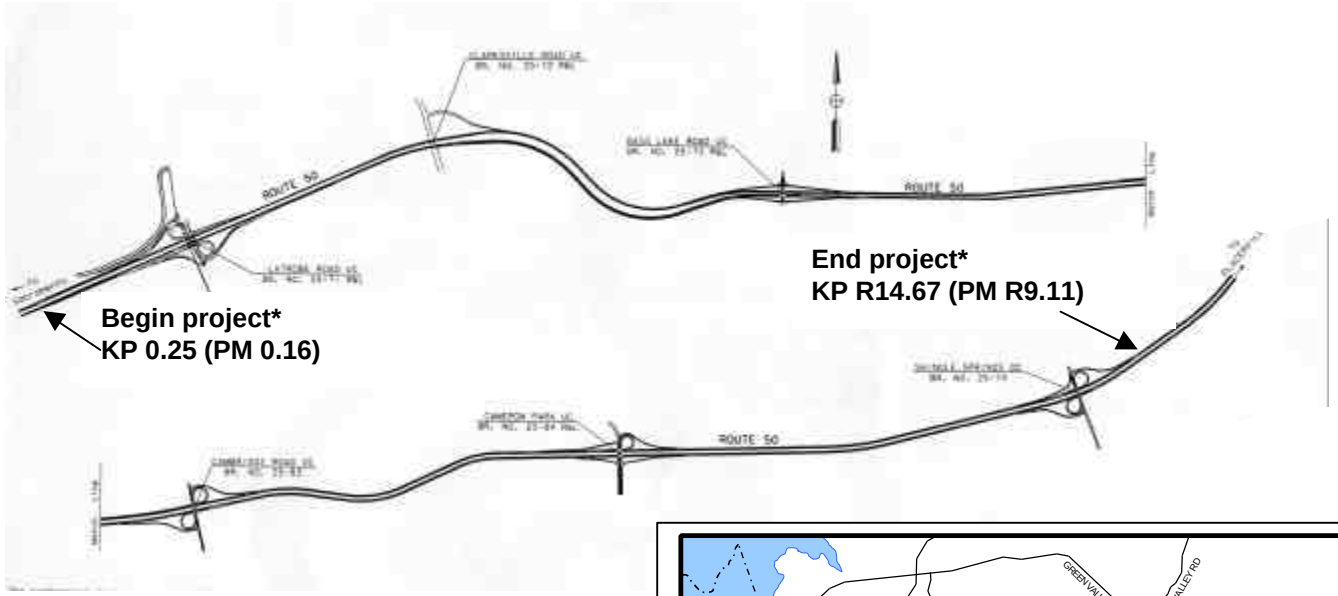
The proposed project is needed to alleviate existing commute congestion and to accommodate traffic demands associated with current and planned residential and employment growth in eastern Sacramento and western El Dorado counties and the City of Folsom. These communities identify the U.S. 50 corridor as a key to the regional transportation system and rely on it as a means of safe, efficient movement of people and goods through the region.

In addition, two major sources of air quality degradation in El Dorado County are meteorological and terrain conditions that result in the intrusion of poor quality air from the Sacramento metropolitan area and vehicle emissions from travel within El Dorado County. Effective transportation systems will play an important role in the improvement and preservation of air quality in El Dorado County and the region.

The following discussion summarizes the background of the proposed lane addition project and provides justification for the project based on existing system deficiencies and future conditions within the corridor.

1.2.1 Land Use and Travel Growth Forecasts

During the past several years, population and employment growth in the eastern portions of Sacramento County and the western portion of El Dorado County have substantially increased travel demand on U.S. 50. Specifically, increases in commute travel volumes arise from the growing communities of El Dorado Hills, Bass Lake, Cameron Park and Shingle Springs, which serve as residential communities to employment centers in Sacramento County (for example, Folsom, Rancho Cordova, and downtown Sacramento). Interregional travel demand associated with year-round recreation areas east of the project in the Tahoe Basin have also contributed to the increased traffic.



*Arrows are approximate.

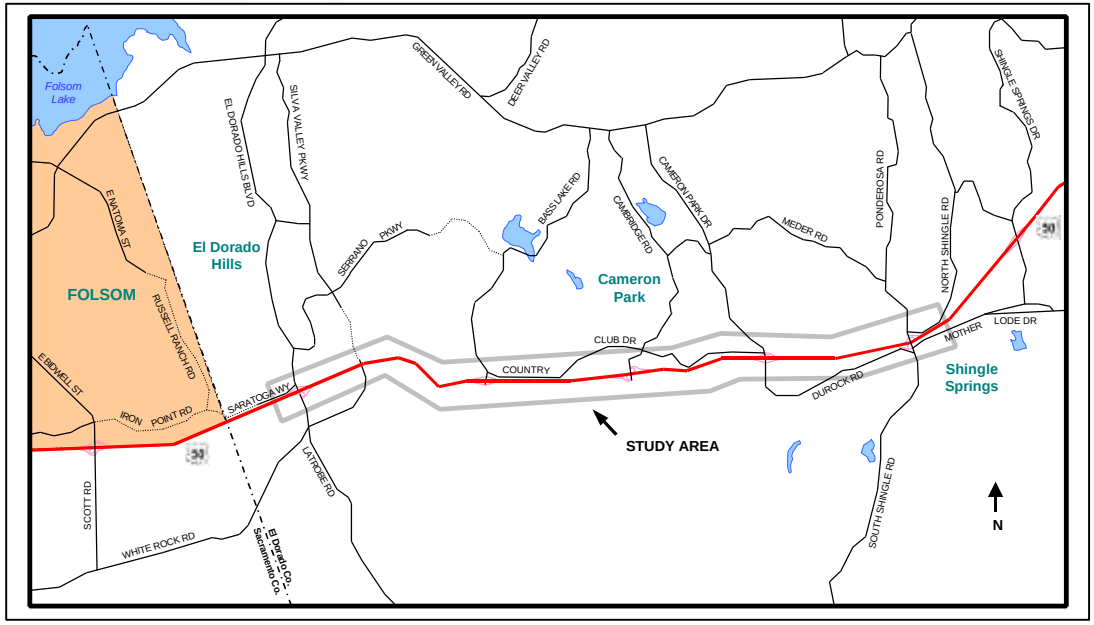


Figure 1
Project Location

The capacity of U.S. 50 has not increased with travel demand. Population and employment projections in both Sacramento County and El Dorado County indicate that this growth trend will continue and, as a result, will further degrade peak-hour traffic operations on U.S. 50, leading to Level of Service (LOS) F (a qualitative means of describing traffic conditions, see Table 1). According to the El Dorado County General Plan, the LOS standard for this section of U.S. 50 is E. Currently, U.S. 50 within the project area generally operates at a LOS E or better; however, the operation of the highway in the western portion of the project area, during weekday peak periods, often falls to LOS F. The level of service for the entire project area is expected to drop to LOS F by the year 2007. By the year 2017, demand is expected to exceed the capacity of the facility by 1.63 times with two or more hours of delay.

Table 1
Level of Service Criteria

LOS	Description
A	Free flow conditions. Individual users are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds; high maneuverability.
B	Stable flow, but the presence of others in the traffic stream begins to be noticeable. Freedom to select desired speeds but a slight decline in maneuverability.
C	Stable flow, but users become affected considerably by interactions with others in the traffic stream. Selection of speed is affected by presence of others; lowered maneuverability.
D	High-density but stable flow. Speed and freedom to maneuver are severely restricted.
E	Unstable flow. Operating conditions are at or near capacity. All speeds are reduced to a low, relatively uniform value. Queues begin to form and maneuverability extremely difficult.
F	Jammed, forced-flow conditions.

1.2.2 Existing Capacity Problems

Table 2 shows annual average daily traffic (both directions of travel) for each location and year indicated. The total volume distribution can be considered as 50 percent in each direction over the course of a day, although the actual volume split throughout the day varies substantially, especially during the AM and PM peak periods.

From 1993 to 1999, the average daily volumes at the Sacramento/El Dorado County line increased 38 percent as a result of significant new residential and commercial development. On the other end of the project area, the increases over the same period was only 3 percent which reflects the lower development growth rate east of Shingle Springs.

Table 2. Mainline Volumes

LOCATION	ANNUAL ADT			
	1993	1995	1997	1999
E. Bidwell St./Scott Rd. to El Dorado Hills Blvd./Latrobe Rd.	48,500	49,000	51,000	67,000
El Dorado Hills Blvd./Latrobe Rd. to Bass Lake Rd.	46,000	46,000	47,500	60,000
Bass Lake Rd. to Cambridge Rd.	45,500	46,000	47,000	54,000
Cambridge Rd. to Cameron Park Dr.	47,000	47,000	47,500	53,000
Cameron Park Dr. to Ponderosa Rd./South Shingle Rd.	50,000	51,000	52,000	55,000
Ponderosa Rd./South Shingle Rd. to Shingle Springs Dr.	44,000	44,000	44,500	45,500

Caltrans Office of Traffic Operations conducted peak-hour traffic counts on the mainline and at the ramps during Spring 1999 (Table 3). In the westbound direction, the mainline peak-hour volume increases from 1,936 vehicles per hour (vph) east of Ponderosa Road to 3,801 vph west of El Dorado Hills Boulevard. The on-ramp volumes are particularly high from northbound Ponderosa Road (670 vph), Bass Lake Road (711 vph), and El Dorado Hills Boulevard (1,033 vph).

As expected, the off-ramp traffic is much lower with only the El Dorado Hills Boulevard ramp (620 vph) over 500 vph. In the eastbound direction, the PM peak hour volume decreases from 3,751 vph west of Latrobe Road to 2,270 vph east of South Shingle Road. The largest on-ramp volume is at Latrobe Road (828 vph). The heavy off-ramp volumes are at Latrobe Road (959 vph) and South Shingle Road (875 vph).

A majority of the congestion for the U.S. 50 corridor has been concentrated around the El Dorado Hills Boulevard/Latrobe Road interchange. The congestion primarily occurs in the westbound direction during the morning commute due to the heavy on-ramp volume from El Dorado Hills Boulevard. In the eastbound direction during the afternoon commute, the on-ramp traffic from Latrobe Road and the grade after the ramp are causes of the congestion.

In 1999, the westbound morning commute experienced congestion from east of Bass Lake Road to east of East Bidwell Street/Scott Road from 6:15 AM to 7:30 AM. In the eastbound direction during the evening commute, the congestion extends from the El Dorado/Sacramento County line to west of Latrobe Road and lasts from 4:45 PM to 6:00 PM.

Table 3. Existing Traffic Volumes (1999)

LOCATION	TYPE	AM / PM	VOLUME		% OCCUPANCY		
			Peak Hour	Peak Period	1	2	3+
Mainline Route 50	EB Mainline	PM	3751	10059	80.0	17.0	3.0
	WB Mainline	AM	3801	10483	-	-	-
El Dorado Hills Boulevard/ Latrobe Road	EB Loop Off	PM	959	2544	-	-	-
	EB Diag On	PM	828	2003	77.5	17.0	5.5
	WB Diag Off	AM	620	1557	-	-	-
	WB Diag On	AM	1033	2971	91.3	7.1	1.6
Bass Lake Road	EB Diag Off	PM	465	1178	-	-	-
	EB Diag On	PM	38	87	70.0	25.0	5.0
	WB Diag Off	AM	24	64	-	-	-
	WB Diag On	AM	711	1656	87.4	10.9	1.7
Cambridge Road	EB Diag Off	PM	409	1085	-	-	-
	EB Loop On	PM	231	714	65.5	25.5	9.0
	WB Diag Off	AM	319	588	-	-	-
	WB Loop On	AM	488	1250	81.9	13.6	4.5
Cameron Park Drive	EB Diag Off	PM	645	1787	-	-	-
	EB Diag On	PM	699	2005	78.5	18.5	3.0
	WB Diag Off	AM	492	1390	-	-	-
	WB Loop On	AM	151	466	79.6	15.3	5.1
	WB Slip On	AM	354	917	82.8	12.9	4.3
Ponderosa Road/ South Shingle Road	EB Diag Off	PM	875	2466	-	-	-
	EB Loop On	PM	258	778	69.5	25.0	5.5
	WB Diag Off	AM	290	1168	-	-	-
	WB Loop On	AM	670	1758	84.3	12.6	3.1
	WB Slip On	AM	499	742	88.6	9.2	2.2
Mainline Route 50	EB Mainline	PM	2270	6274	-	-	-
	WB Mainline	AM	1936	5384	84.4	13.1	2.5

Source: District 3, Office of Traffic Operations – Sacramento

1.2.3 Safety Concerns

The eastbound direction experienced 114 (46 percent) of a total of 247 collisions over the three-year period reported, with two fatalities (Table 4). There were 133 collisions with no fatalities in the westbound direction. A comparison of the actual to the average accident rates for similar highway facilities showed the actual rates were lower in the eastbound direction, while the westbound direction rates were slightly higher for "Fatal Plus Injury" collisions.

Table 4. Collision Summary
(07-01-97 to 06-30-00)

Dir.	Location Description (Post Mile Limits)	Actual Collision Rate (acc/mvm)*			Average Collision Rate (acc/mvm)*		
		Fatal	F+I**	Total	Fatal	F+I**	Total
EB	Latrobe Rd. (PM 0.870) to South Shingle Rd. (PM R8.513)	0.009	0.24	0.54	0.011	0.25	0.65
WB	Ponderosa Rd. (PM R8.513) to El Dorado Hills Blvd. (PM 0.870)	0.000	***0.32***	0.63	0.011	***0.25***	0.65

** **Collisions per million vehicle-miles***
*** **Fatal Plus Injury***
Source: Traffic Collision Surveillance and Analysis System

Thirty-nine percent (39 percent) of all westbound collisions were rear-end type collisions and 30 percent were hit objects. Thirty-five percent (35 percent) of total eastbound collisions reported for the three-year period was rear-end type collisions and 33 percent were hit objects. In addition, approximately 35 percent and 31 percent of all collisions occurred during the morning (westbound) and afternoon (eastbound) peak periods, respectively. This suggests that slowdowns and congestion are sources of collisions within the project area. Therefore, any reduction in congestion that this project provides should contribute to a decrease in delays and lower overall collision rates.

1.3 Existing Facility

The existing facility is a four-lane divided freeway, constructed in the late 1960s. The highway has no median barrier, except at spot locations and a 0.4 km (1/4-mi) section east of the Bass Lake Road Undercrossing (UC). Existing lane widths are 3.6 m (12 ft). Outside shoulders vary from 2.4 m (8 ft) to 3.0 m (10 ft). Inside shoulders are approximately 1.5 m (5 ft). The U.S. 50 median width varies within project limits. In the Bass Lake Grade (roughly from Clarksville UC to Bass Lake Road UC), the roadbed alignment is split with variable median width of 12.6 m (41 ft) to 51.0 m (167 ft). East of Bass Lake Road, the median width varies from 14.0 m (46 ft) to 52 m (171 ft).

Within the project limits, there are five existing interchanges. These interchanges are: 1) a modified type L-1/L-8 interchange at El Dorado Hills Boulevard, 2) a Type L-1 compact diamond interchange at Bass Lake Road, 3) a Type L-7 partial cloverleaf interchange at Cameron

Park Drive, 4) and a modified type L-1/L-9 partial cloverleaf/compact diamond interchange at Ponderosa Road/South Shingle Road. The interchange at El Dorado Hills is the subject of a Project Report approved by Caltrans in June 2000; the Project Report proposes to improve ramps, add new ramps, and relocate a frontage road intersection. Other projects proposed adjacent to or within the project area are discussed under Section 1.6, Related Projects.

1.4 Purpose and Objectives of the Proposed Action

A multidisciplinary Caltrans team, in its effort to solve or lessen the traffic problems caused by insufficient capacity, developed the following major objectives for the proposed action:

- Improve existing traffic operations,
- Increase the people-moving capacity within the U.S. 50 corridor, and
- Provide additional opportunity and incentive for ridesharing.

Benefits of the proposed project would include:

- Reduced congestion
- Improved level of service
- Improved safety
- Improved air quality
- Increased multiple passenger vehicle use

The proposed project would extend capacity improvements easterly from the HOV lanes currently under construction between Sunrise Boulevard in Sacramento County and El Dorado Hills Boulevard in El Dorado County.

Caltrans has studied two alternatives for implementing the above objectives. In accordance with CEQA requirements, the Caltrans design team also studied the No Project Alternative although it would not achieve project objectives. The No Project Alternative would maintain the roadway's current configuration. Section 2.0 discusses the proposed action and its alternatives.

1.5 History of Planning and Scoping Process

The Sacramento Area Council of Governments (SACOG) High Occupancy Vehicle Planning Study for the Sacramento Metropolitan Area (1990) recommended HOV lanes be added to U.S. 50 between the downtown area of the city of Sacramento and Shingle Springs in El Dorado County. HOV lanes on U.S. 50 also are consistent with the provisions of SACOG's 1999 Metropolitan Transportation Plan.

1.6 Related Projects

A number of transportation projects are planned or under construction within or adjacent to the project area in the U.S. 50 corridor. The proposed project does not conflict with any of these

projects, and in fact, is consistent with the following projects which are part of a regional effort to increase the capacity of the U.S. 50 corridor.

- An HOV lane project is currently under construction from Sunrise Boulevard to El Dorado Hills Boulevard, which is adding an additional lane in each direction for HOV use within the existing median.

- Improvements to the El Dorado Hills Boulevard-Latrobe Road interchange on U.S. 50 are proposed. The project would include improvements to the alignment of the interchange on- and off-ramps, widening El Dorado Hills Boulevard-Latrobe Road from four to six lanes to provide dual left-turn lanes at the eastbound and westbound on-ramp intersections, widening of the U.S. 50 bridge structure, and realigning Saratoga Way to intersect with Park Drive. The project design provides for the proposed widening of U.S. 50 to the east. Local funds are committed to this project and construction is scheduled to begin in 2002.

- A Project Report for a new interchange at Silva Valley Parkway was completed in 1991. The proposed project would construct a type L-9, partial-cloverleaf interchange about 1.6 km (1 mi) east of the El Dorado Hills Boulevard/Latrobe Road interchange. The project also includes auxiliary lanes to the El Dorado Hills Boulevard/Latrobe Road interchange for both directions of U.S. 50. The 1999 Metropolitan Transportation Plan shows a projected completion year of 2008.

- In 1998, the EDCTC, working with Caltrans and the El Dorado County Department of Transportation (DOT), funded the Bass Lake Grade Truck Climbing Lane Project. This project added one eastbound lane in the existing U.S. 50 median from approximately 0.3 km (0.2 m) east of the Clarksville Road UC and continuing to 0.51 km (0.32 mi) east of the Bass Lake Road UC, approximately 2.72 km (1.7 mi). The addition allows the use of the existing eastbound outside lane as a truck climbing lane. Construction was completed Fall 2000.

- The El Dorado County DOT is proposing to widen a number of roads adjacent to U.S. 50 in the project area, from two to four lanes, to accommodate traffic from existing and planned growth, including Cambridge Road, Cameron Park Drive, and Latrobe Road. These and other road widening projects are included in the 2000/01 Metropolitan Transportation Improvement Program (SACOG) but their construction is not anticipated in the near-term.

- A future Folsom/El Dorado East Rail Line that would extend rail service from the future Sacramento-to-Folsom Light Rail extension to the vicinity of El Dorado Hills multi-modal facility. The light rail extension is included in the Highway 50 Corridor Capacity Study (12/98) prepared by EDCTC, the City of Folsom, and the Folsom-El Dorado Joint Power Authority.

Consistent with commercial and residential zoning along the U.S. 50 corridor within the project area, a number of developments are under construction and others have been approved.

1.7 Support for the Project

The project has received support from the Sacramento Area Council of Governments (SACOG), an association of 23 city and county governments, which programmed study and environmental review of the project in its 1998/99 Metropolitan Transportation Improvement Program.

The project is supported by the El Dorado County Transportation Commission (EDCTC), which initiated the project study; the El Dorado County Department of Transportation; and the El Dorado County Transit Authority (EDCTA). In its letter to Caltrans (11/2/99), the EDCTA stated that "a key component to continuing the success of the current commuter service are HOV lanes on the Highway 50 corridor."

Caltrans and the EDCTC anticipate that the project will receive general support from the public and that the main area of concern will be whether the added lanes are carpool or mixed use. Caltrans will receive feedback on the project during public circulation of the environmental document when it also will host a public information workshop.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ITS ALTERNATIVES

2.1 Introduction

This chapter describes the proposed action and the design alternatives that were developed by a Caltrans multi-disciplinary team to achieve project objectives while reducing or eliminating environmental impacts. The alternatives are Alternative 1, Add HOV Lanes (Preferred Alternative); Alternative 2, Add Mixed-Flow Lanes; and the No-Build Alternative. The potential environmental impacts of each alternative are discussed. This chapter includes a discussion of the No Project Alternative that was studied by the Caltrans team as required by the California Environmental Quality Act (CEQA).

2.2 Alternatives Considered

Alternatives being considered include whether new lanes would be designated as HOV lanes or mixed-flow lanes or the no-project alternative. Depending on HOV lane or mixed-flow lane designation, the lane drops/transitions would differ. While the HOV lanes alternative has been identified as the preferred alternative, selection of a preferred alternative will not be made until after the public circulation period. Criteria used for the alternative evaluation include:

- Traffic performance measures (i.e., vehicle-hours of delay, person hours of delay, etc.)
- Air quality impacts (local and regional)
- Benefits of continuity of the U.S. 50 HOV system, and
- Policy issues relative to implementation of U.S. 50 Major Investment Study alternatives.

2.2.1 The Proposed Action

This project would construct an additional lane in each direction, with construction extending from west of the El Dorado Hills Undercrossing (UC) to east of the South Shingle Road/Ponderosa Road overcrossing (Figure 1). The project would continue from the HOV lanes currently under construction west of the project area. The western end of the project, from approximately KP 0.25 (PM 0.16) to approximately KP 1.31 (PM 0.81) would involve restriping where the previous HOV lanes transition back to two mixed-use lanes. Actual widening in the median would begin at approximately KP 1.31 (PM 0.81). The eastbound lane would end east of the eastbound on-ramp just past South Shingle Road/Ponderosa Road overcrossing to avoid a bottleneck and to provide a smooth transition back to two lanes. The lanes would be constructed within the existing median, taking advantage of the existing facilities by increasing their capacity and operating them more efficiently. The outside widening required for this project would be in the vicinity of the Bass Lake Grade Truck Climbing Lane, which would require additional widening of approximately 2.4 m (7.9 ft) on the outside eastbound lane. Typical cross-sections are provided in Figures 2a-2c.

Bridge Modifications/Median Closures
The addition of lanes within the median of U.S. 50 would require that the following structures be widened to the inside: Latrobe Road UC, Clarksville UC, Bass Lake UC, Cameron Park UC.

Lighting Improvements
Improvements to existing safety lighting to current standards are proposed at the following interchanges: El Dorado Hills Boulevard, Bass Lake Road, Cameron Park Drive, Cambridge Road, and South Shingle/Ponderosa Road. Upgrades may include moving or adding lighting to improve coverage at the interchanges.

New Overlay for Existing Roadway
When the addition of the new lanes is complete, and prior to installation of guard rail, the project proposes to grind the open-graded asphalt-concrete (AC) overlay of the existing roadway and apply new AC overlay on the entire roadway.

CHP Enforcement Areas
During final design, Caltrans would coordinate with the California Highway Patrol (CHP) regarding the location of CHP enforcement areas to discourage violation of the HOV lanes.

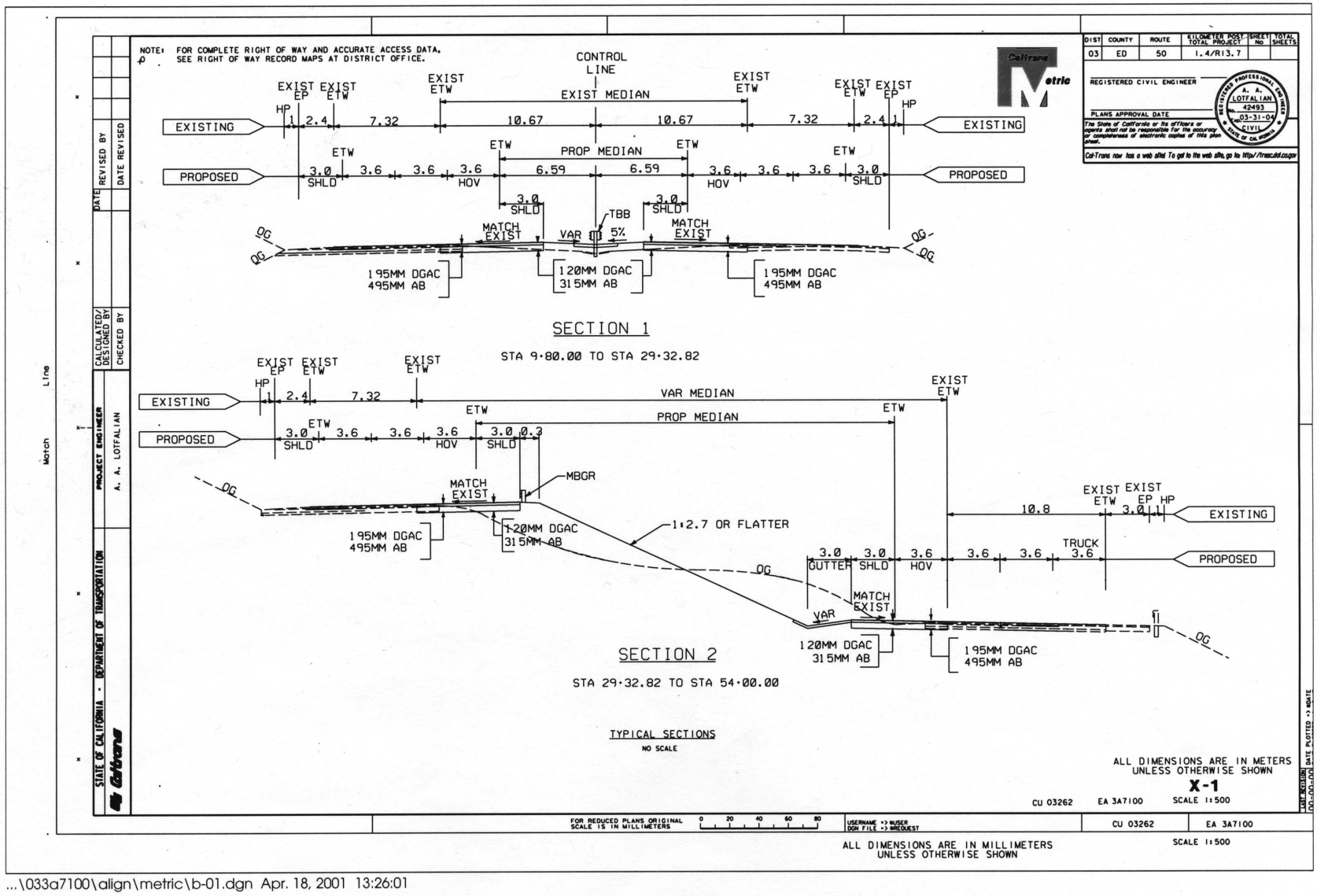


Figure 2a Typical Cross-Sections

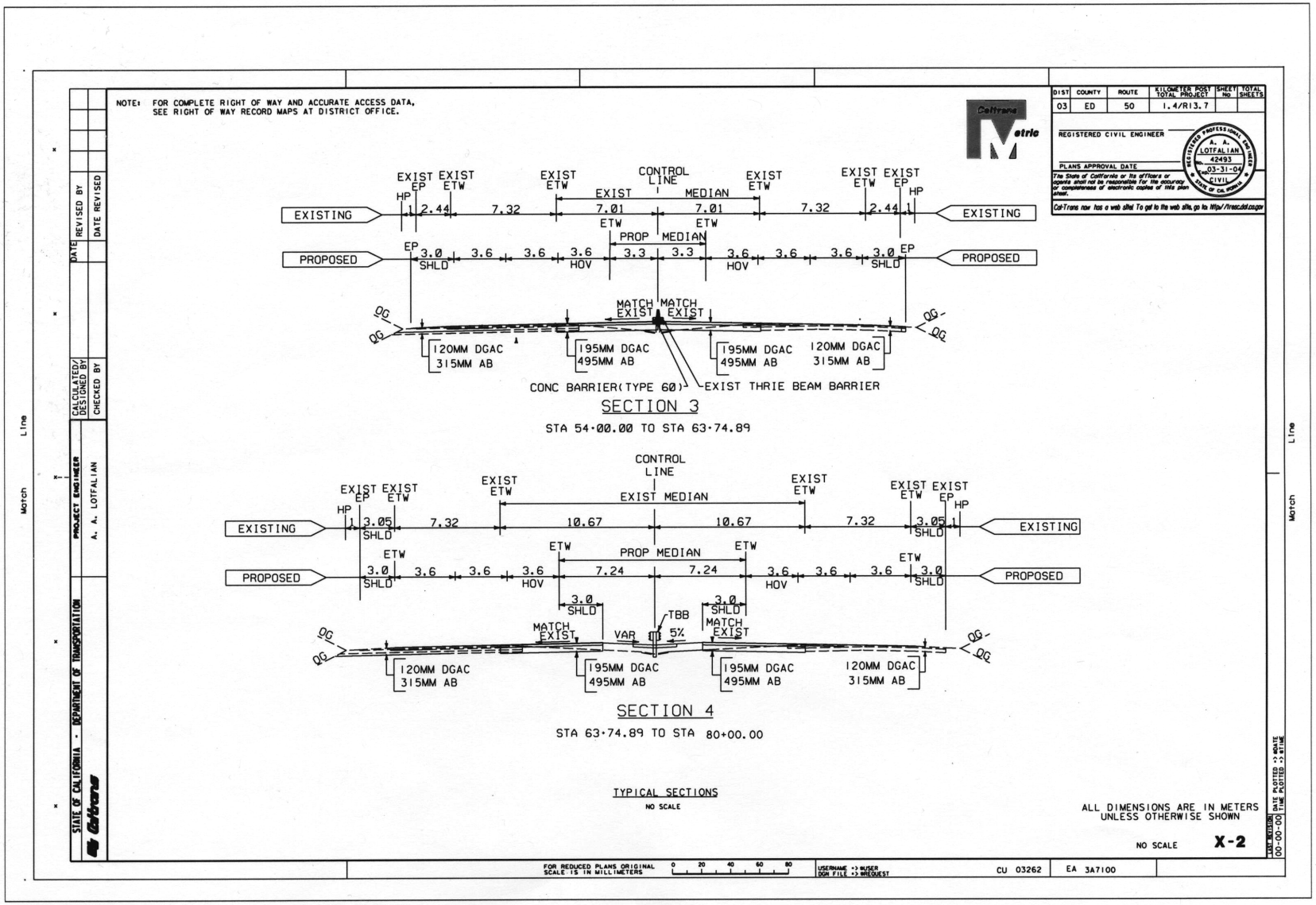
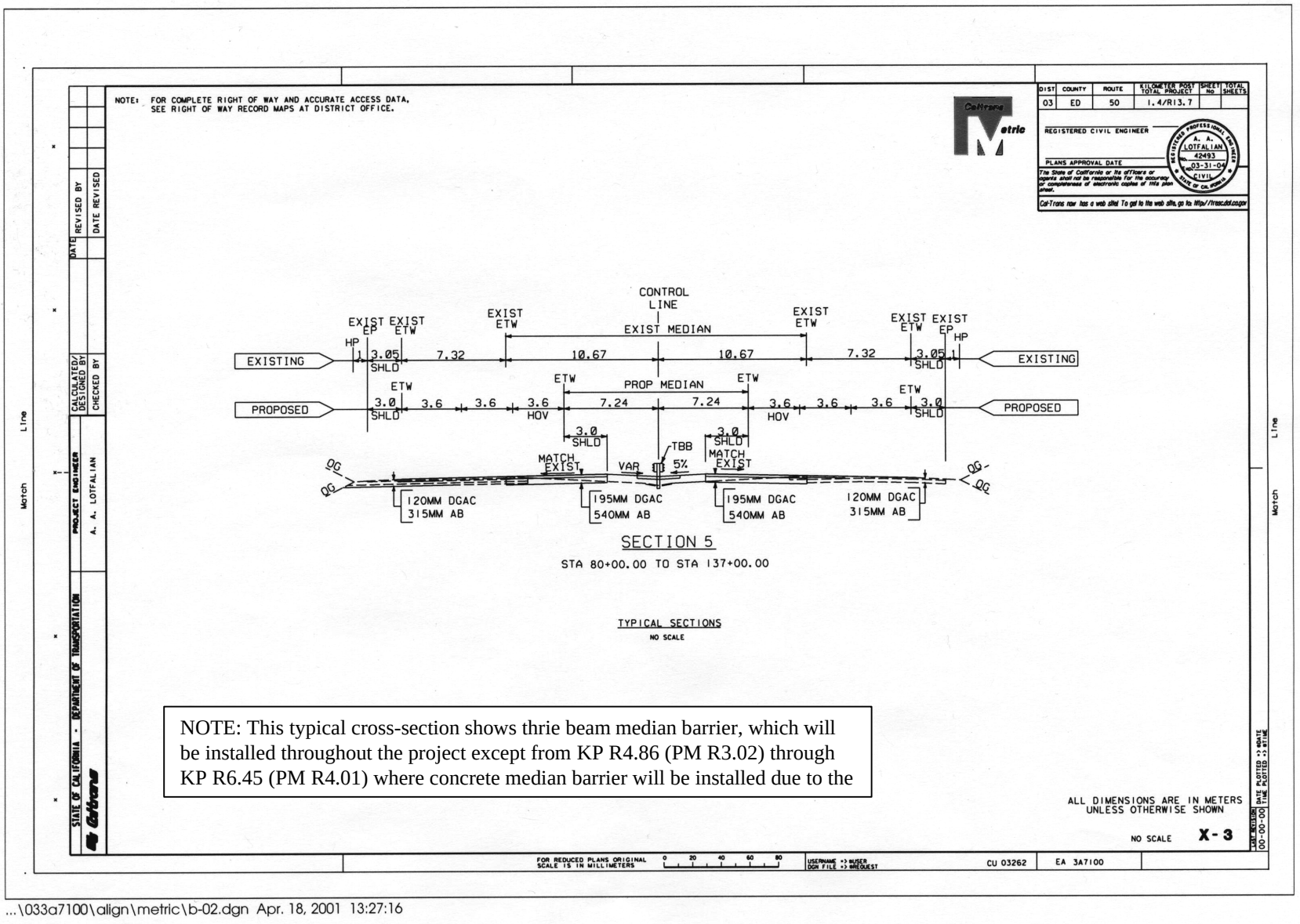


Figure 2b Typical Cross-Sections



NOTE: This typical cross-section shows thrie beam median barrier, which will be installed throughout the project except from KP R4.86 (PM R3.02) through KP R6.45 (PM R4.01) where concrete median barrier will be installed due to the

Figure 2c Typical Cross-Sections

Park-and-Ride Facilities
Several park-and-ride facilities are located along the U.S. 50 corridor in El Dorado County. These lots are utilized heavily by car-poolers as well as transit users. El Dorado County maintains some of the lots, while Caltrans maintains others. This project recommends that Caltrans-owned park-and-ride lots be assessed and rehabilitated, as necessary, during the construction of this project.

Median Barrier and Paving
Median barriers are proposed throughout the length of the project. Median barrier treatment would depend on median width. For example, near Bass Lake Road, the median width would be 6.6 m (21.7 ft). In this area, the median would be paved with a concrete barrier (Type 60) separating eastbound and westbound traffic. Between El Dorado Hills Boulevard and Clarksville UC, and east of Bass Lake Road to South Shingle Road/Ponderosa Road the median width would be 14.0 m (45.9 ft); in these areas, a continuous double row of metal beam median barrier has been proposed.

Sound Walls
An Environmental Noise Analysis was conducted as part of the environmental process for this project to determine the potential for noise impacts related to changes in projected traffic volumes. The study measured existing noise levels and evaluated potential future noise levels with and without the proposed project. The noise study report indicates that, with either of the build alternatives, noise abatement (sound walls) is reasonable and feasible on the north side of U.S. 50, west of Cameron Park Drive (Appendix A). Preliminary information on the physical characteristics of potential sound walls (e.g., physical location, length, and height) is provided in Section 5 of this document. The final design of sound walls (if constructed) would be based on final project design.

Design Exceptions
The proposed improvements would conform generally to current Caltrans design standards for lane and shoulder widths. However, within existing 14.0 m (45.9 ft) median areas, an exception by Caltrans to advisory standard would be required for non-standard median width (6.6 m [21.7 ft] in lieu of 10.8 m [35.4 ft]). Non-standard outside shoulder widths are located within the project limits, particularly at structures. At these locations, the shoulder width is 2.67 m (8.8 ft) in lieu of 3.0 m (9.8 ft). These shoulders may need to be widened to bring them up to current standards; otherwise, a design exception to an advisory standard would need to be acquired.

Ramp Metering and HOV Bypass Lanes
Ramp metering and HOV bypass lanes are not part of the proposed project. The need for these features would be studied for each interchange location in the project area as part of a future project(s).

Phasing

To provide options for obtaining funds for the proposed project, Caltrans prepared estimates for three construction scenarios (Table 5). Option A would construct the two lanes under one contract at an estimated cost of $32 million. Two other options would construct the project in two phases.

Under Option B, Phase 1 would include construction of the entire westbound lane and construction of the eastbound lane from KP 0.3 (PM 0.19) to one-half mile beyond the Latrobe Road Interchange eastbound on-ramp. Estimated cost to construct Phase 1 is $24.2 million. To complete construction of the project in Phase 2 would cost an additional $13.4 million for a total estimated cost of $37.6 million; an increase of $5.6 million, due to a number of factors including escalation of unit costs.

Under Option C, Phase 1 would include construction of the westbound lane and Phase 2 would include construction of the eastbound lane. The estimated cost of Phase 1 under this option would be $23.1 million, while the estimated cost of Phase 2 would be $16.8 million, bringing the total cost to $39.9 million. Estimated costs under the phasing scenarios are in present dollar value. Phase 2 would need to be constructed by 2015 to meet expected traffic demand. If Phase 2 is not constructed within five years of approval of the final environmental document for this project, a new environmental review may be required, resulting in additional support costs not reflected in the above estimates.

2.2.2 Alternative 1, Add HOV Lanes

A high-occupancy vehicle (HOV) lane (also known as a carpool lane) is a protected lane usually located in the middle of freeways; it is used by buses, vanpools and carpools to carry more than one passenger at a time. In the proposed project, an HOV lane would be added in each direction from approximately El Dorado Hills Boulevard/Latrobe Road [KP 0.25 (PM 0.16)] to east of Ponderosa Road/South Shingle Road at approximately KP R14.67 (PM R9.11). Design and operational details of the proposed HOV lanes are:

- Contiguous 3.6 m (12 ft) HOV median lane
- Standard signing and pavement markings for the HOV lane
- Two 3.6 m (12 ft) mixed-flow lanes
- 4.2 m (14 ft) or greater continuous median enforcement area where possible
- 3.0 m (10 ft) median shoulder for remainder of project
- 3.0 m (10 ft) minimum outside shoulder
- Vehicle occupancy requirement of two or more passengers with motorcycles and “Clean Air Vehicles” allowed
- Peak-period operation (6 to 10 AM and 3 to 7 PM) in both directions

The standard design characteristics for HOV lanes can be found in Caltrans' HOV Guidelines. For this project, a contiguous HOV lane is recommended because the unrestricted access it provides would promote a higher level of HOV lane usage and would match the design of the successful HOV lane on Route 99.

Operational characteristics (occupancy requirement and time of operation) for the HOV lanes were selected for regional consistency with the existing HOV lanes on Route 99 and the HOV lanes on I-80 and U.S. 50 that are planned or under construction. These characteristics are subject to verification based on freeway operations when the project is completed. For example, if the HOV lanes were to become congested and operate poorly, it would be necessary to increase the occupancy requirement.

In addition to the HOV lanes, traffic studies for this alternative included the HOV lanes west of El Dorado Hills Boulevard/Latrobe Road that are under construction and the proposed interchange at Silva Valley Parkway (Figures 3a-3b).

2.2.3 Alternative 2, Add Mixed-Flow Lanes

A mixed-flow lane would be added in each direction from El Dorado Hills Boulevard/Latrobe Road to just east of Ponderosa Road/South Shingle Road. Design and operational details of a mixed-flow lane are typically the same as that of an HOV lane; however, no CHP enforcement areas or special signing and pavement markings would be required:

- Contiguous 3.6 m (12 ft) median lane
- 3.6 m (12 ft) mixed-flow lanes
- 3.0 m (10 ft) median shoulder for remainder of project
- 3.0 m (10 ft) minimum outside shoulder

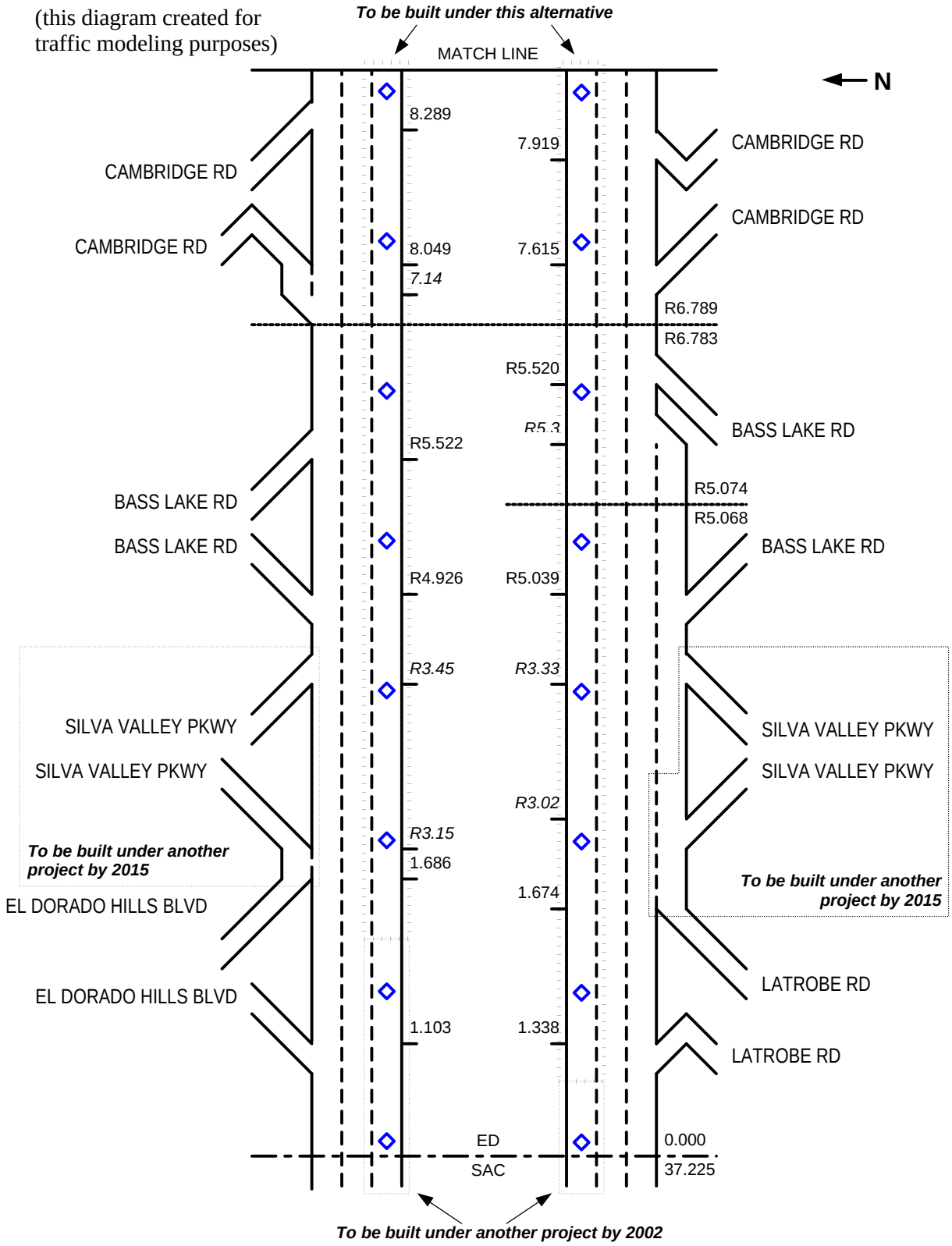
As with the other two alternatives, traffic studies for this alternative included the HOV lanes west of El Dorado Hills Boulevard/Latrobe Road that are under construction and the proposed interchange at Silva Valley Parkway (Figure 4a-4b). The adjacent HOV lanes are assumed to be in place by 2002, and the new interchange by 2015.

In the westbound direction, the additional mixed-flow lane would end adjacent to the HOV lanes being built under a separate project. This situation requires special consideration because HOV lanes are typically started as an added lane to the freeway. The added lane prevents single-occupant vehicles from being "trapped" or forced into an HOV lane. To create the added lane for the start of the HOV lane at this location, widening to the outside at the Latrobe Road UC would be needed to provide the standard lane drop and add tapers.

The other option would be to make the third lane exit only to El Dorado Hills Boulevard, which may inadvertently trap through traffic. This configuration would require widening the bridge to the outside, which may interfere with the proposed interchange reconstruction at this location. The end of the proposed HOV lane in the eastbound direction would not be modified under this alternative.

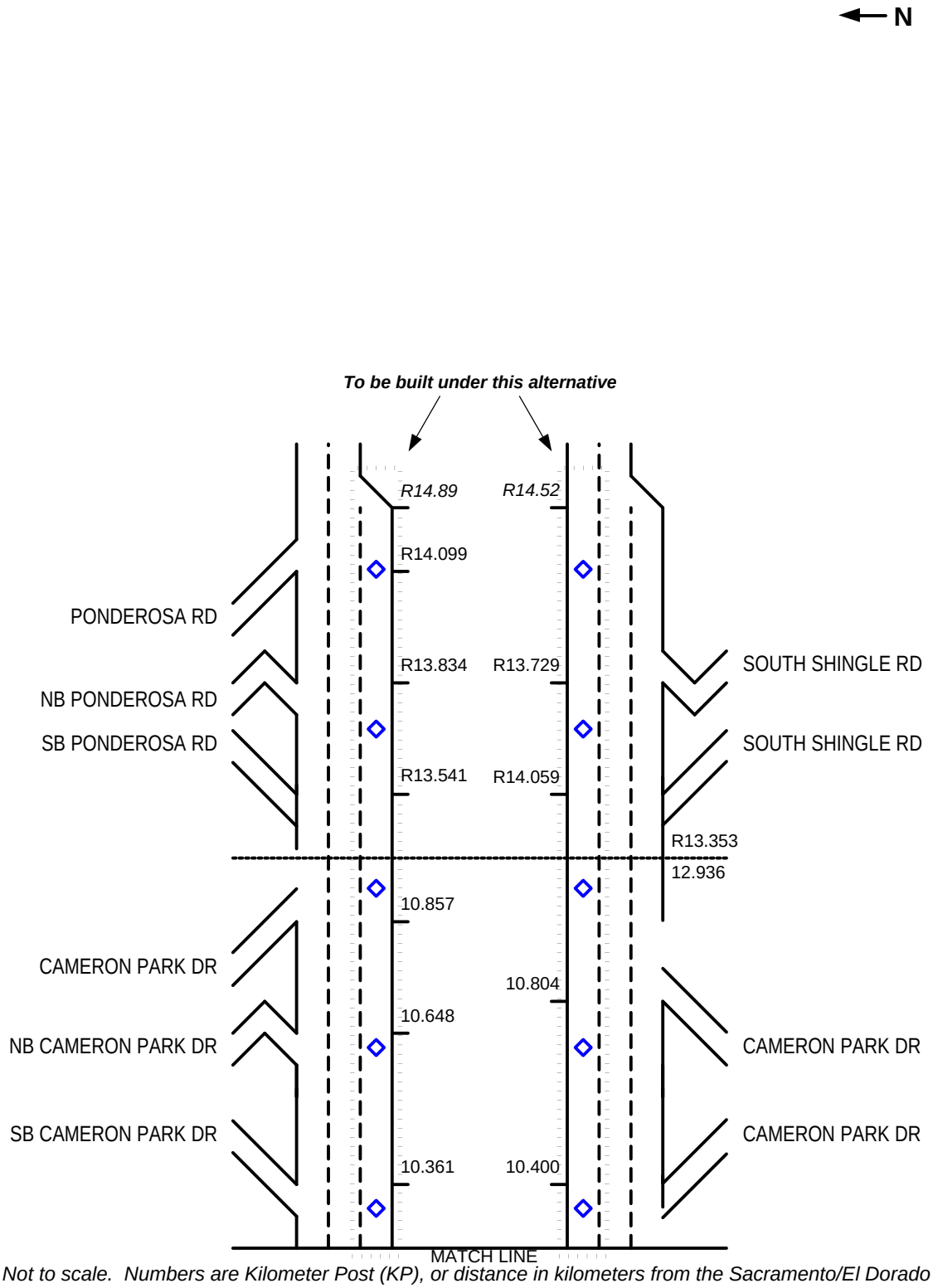
LANE CONFIGURATION DIAGRAMS

Figure 3a
Add HOV Lanes
(this diagram created for traffic modeling purposes)



Not to scale. Numbers are Kilometer Post (KP), or distance in kilometers from the Sacramento/El Dorado County line. Italics denote estimated KP. Please refer to Appendix C for this figure in English units (post miles).

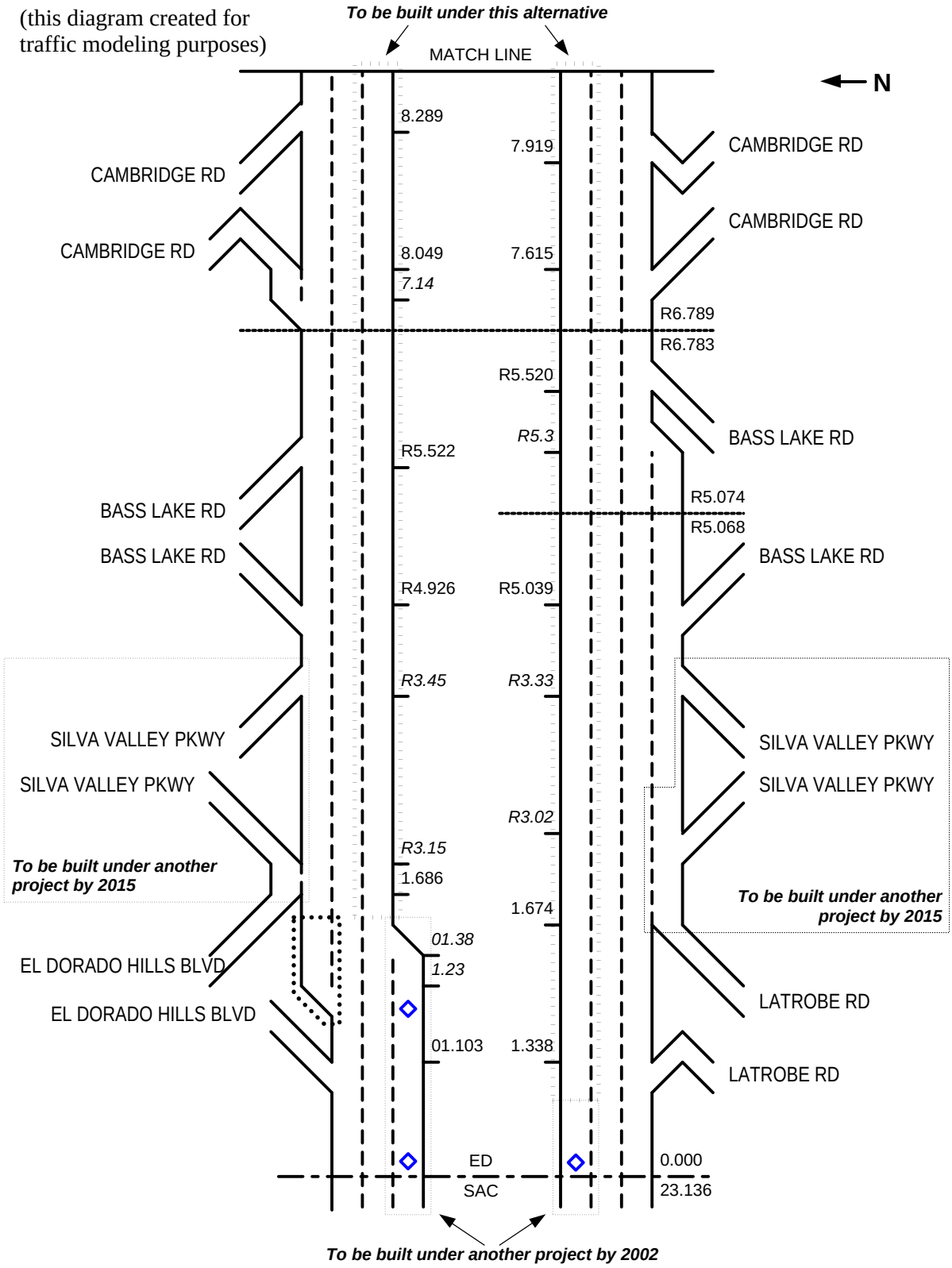
Figure 3b
Add HOV Lanes, continued
(this diagram created for
traffic modeling purposes)



Not to scale. Numbers are Kilometer Post (KP), or distance in kilometers from the Sacramento/El Dorado County line. Italics denote estimated KP. Please refer to Appendix C for this figure in English units (post miles).

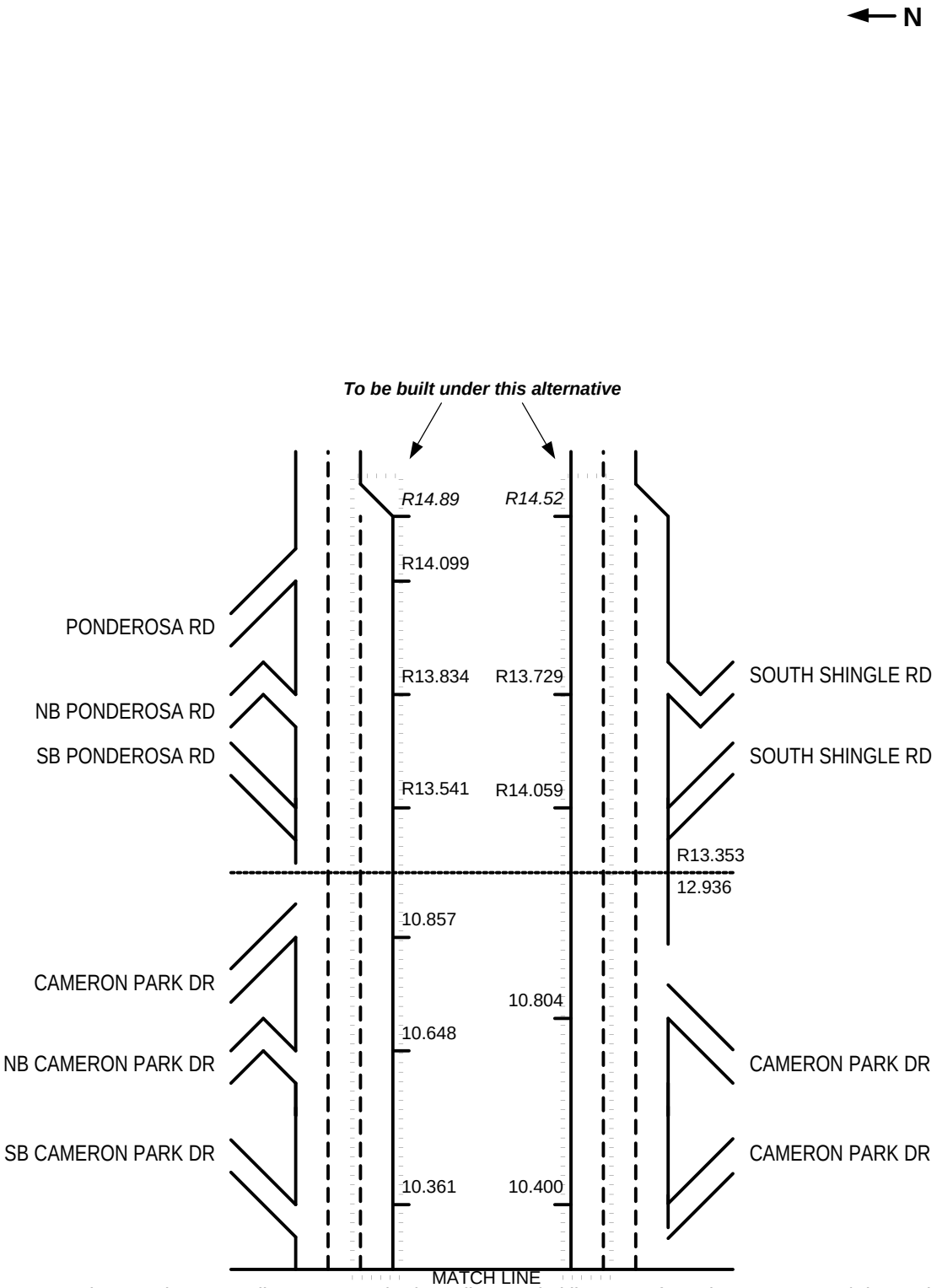
LANE CONFIGURATION DIAGRAMS

Figure 4a
Add Mixed Flow Lanes
(this diagram created for traffic modeling purposes)



Not to scale. Numbers are Kilometer Post (KP), or distance in kilometers from the Sacramento/El Dorado County line. Italics denote estimated KP. Please refer to Appendix C for this figure in English units (post miles).

Figure 4b, continued
Add Mixed Flow Lanes
(this diagram created for
traffic modeling purposes)



Not to scale. Numbers are Kilometer Post (KP), or distance in kilometers from the Sacramento/El Dorado County line. Italics denote estimated KP. Please refer to Appendix C for this figure in English units (post miles).

2.2.4 No-Build Alternative

Under CEQA, environmental review must consider the effects of not implementing the proposed project. The no-build alternative represents the existing condition of the facility plus the improvements west of El Dorado Hills Boulevard/Latrobe Road and at Silva Valley Parkway. The HOV lane project between Sunrise Boulevard and El Dorado Hills Boulevard is under construction and studies assumed that project to be complete by 2002. The Silva Valley Parkway interchange and associated auxiliary lanes are planned for completion in 2008, so these should be in place by 2015.

Although the adjacent projects will provide some operational improvements, the bottlenecks in the westbound and eastbound directions near the El Dorado Hills Boulevard/Latrobe Road interchange will continue to lead to congestion during peak periods. As volumes increase over time, new bottlenecks will form and the operation of the freeway will continue to degrade to a Level of Service to "F" for the entire project area by year 2007**.** As congestion worsens, so will air quality along the corridor. Fire, police, and emergency medical services will be negatively impacted by the no-project alternative. Adjacent communities and other destinations, likewise, could experience economic impacts with the no-project alternative.

2.2.5 Comparison of Alternatives

After comparing and weighing the benefits and impacts of all of the feasible alternatives, some of which are summarized in Table 5 below, the Caltrans team has identified Alternative 1, Add HOV Lanes as the preferred alternative (subject to public review). Final selection of a project alternative would occur subsequent to the public review and comment period.

Table 5: Comparison Summary of Alternatives

	Alt. 1, Add HOV Lanes *Preferred Alternative**	**Alt. 2, Add Mixed-Flow Lanes**	**No Project**
Air Quality improvement?	Yes	Yes	No
Environmental Impacts?	Mitigation measures would reduce minor impacts	Mitigation measures would reduce minor impacts	Increased congestion would lead to increased vehicle pollutant emissions
Conforms with State Implementation Plan for Air Quality?	Yes	Yes	No
Meets Purpose and Need?	Yes	No	No
Safety improvement?	Most improvement, due to reduction in vehicle miles traveled	Some improvement	No improvement
Project Capital Cost : Option A One phase Option B Phase 1: $24.2 M Phase 2: $13.4 M Option C Phase 1: $23.1 M Phase 2: $16.8 M	 $32 million $37.6 million $39.9 million	 $32 million $37.6 million $39.9 million	 --

*Alternative 1, Add HOV Lanes has been identified as the preferred alternative. However, selection of a preferred alternative will not occur until after the public circulation period.

Table 6 summarizes the traffic study results for the westbound peak period (6 to 9 AM) for years 1999, 2002, 2015 and 2025 for the three alternatives.

Table 6. Westbound – AM

Year	Alternative	Lane Type	Average Speed	Mainline Delay (< 35 mph)	Freeway Travel Time	Total Travel Distance	
			mph	veh-hrs	veh-hrs	veh-mi	pass-mi
1999	**EXISTING**	MF	52	70	1505	78551	102440
2002	**NO BUILD**	MF	54	65	1529	82106	107165
	ADD HOV	HOV	65	0	177	11496	34506
		MF	63	0	1105	69847	71691
		Total	63	0	1282	81343	106197
	ADD MF	MF	64	1	1312	83746	109301
2015	**NO BUILD**	MF	28	1185	3478	87714	114815
	ADD HOV	HOV	65	0	273	17729	49140
		MF	33	687	2683	78806	81966
		Total	37	687	2956	96535	131106
	ADD MF	MF	30	1261	3494	105676	138261
2025	**NO BUILD**	MF	24	1620	4760	86518	113442
	ADD HOV	HOV	65	0	342	22210	59884
		MF	23	1577	4974	83309	87077
		Total	27	1577	5315	105519	146961
	ADD MF	MF	20	2916	6100	113909	149265

The formula for vehicle-miles as used in the table above follows:

Vehicle-miles = flow rate (vehicles per hour) x time of the simulation (total number of hours) x length off the section modeled (miles) x number of lanes

Passenger-miles = total number of vehicle-miles x average occupancy rate (persons/vehicle)

Table 7 summarizes the traffic study results for the eastbound peak period (3 to 6 PM) for years 1999, 2002, 2015 and 2025, for the three alternatives.

Table 7. Eastbound– PM

Year	Alternative	Lane Type	Average Speed	Mainline Delay (< 35 mph)	Freeway Travel Time	Total Travel Distance	
			mph	veh-hrs	veh-hrs	veh-mi	pass-mi
1999	**EXISTING**	MF	64	0	1225	77899	113114
2002	**NO BUILD**	MF	63	2	1270	80549	117026
	ADD HOV	HOV	65	0	232	15095	47115
		MF	65	0	1017	66001	70532
		Total	65	0	1249	81096	117648
	ADD MF	MF	65	0	1266	82286	119573
2015	**NO BUILD**	MF	50	180	2179	104464	152050
	ADD HOV	HOV	65	0	387	25146	74279
		MF	63	0	1355	85850	93829
		Total	64	0	1742	110996	168108
	ADD MF	MF	64	0	1779	114527	166753
2025	**NO BUILD**	MF	47	259	2586	109849	160117
	ADD HOV	HOV	65	0	476	30717	88228
		MF	50	191	1897	93495	103267
		Total	53	191	2374	124212	191495
	ADD MF	MF	57	121	2368	130996	190981

The formula for vehicle-miles as used in the table above follows:

Vehicle-miles = flow rate (vehicles per hour) x time of the simulation (total number of hours) x length off the section modeled (miles) x number of lanes

Passenger-miles = total number of vehicle-miles x average occupancy rate (persons/vehicle)

2.2.5.1 Discussion

The No Build Alternative resulted in the most delay and lowest average mainline speeds, and would move the least number of vehicles and people of the three alternatives. In both directions, bottlenecks at Bass Lake Road control the operation of the freeway in future years causing significant queuing outside the study area. This results in average speeds in 2025 of 24 mph westbound and 47 mph eastbound. This alternative would not promote ridesharing, nor would it do anything to accommodate the planned growth on the U.S. 50 corridor. Therefore, the no-build option should not be considered as a viable alternative.

The HOV lanes in the HOV Lanes Alternative operated at free-flow speeds for all future years (2002, 2015 and 2025). In the westbound direction, the mixed-flow lanes of the HOV Lanes Alternative are free-flow in 2002, have a bottleneck at the El Dorado Hills Boulevard on-ramp in 2015, and have a second bottleneck at the Bass Lake Road on-ramp in 2025. In contrast, Mixed Flow Lanes Alternative has congestion for all future years, although the congestion in 2002 is minor. The bottleneck occurs at El Dorado Hills Boulevard on-ramp because the two mixed-flow lanes can not accommodate the on-ramp traffic. In 2025, the average peak-period speed for the HOV Lanes Alternative is higher (27 mph) than the Mixed Flow Lanes Alternative (20 mph). Also, the HOV Lanes Alternative has nearly half (54 percent) of the congestion delay experienced under the Mixed Flow Lanes Alternative. For the westbound direction, the add-HOV Lanes Alternative provides better freeway operations.

In the eastbound direction, the HOV Lanes Alternative has free-flow conditions for all lanes for 2002 and 2015, but the end of the HOV lane causes congestion in 2025. Similarly, the Mixed Flow Lanes Alternative is free-flow for 2002 and 2015, but the lane drop at the end of the third lane is a bottleneck in 2025. The performance of the two build alternatives is very similar for 2002 and 2015. In 2025, the Mixed Flow Lanes Alternative has a better average peak-period speed (57 versus 53 mph) and less congestion delay (121 versus 191 vehicle-hours). Therefore, the Mixed Flow Alternative performs better in the eastbound direction in 2025.

The Caltrans HOV Guidelines state that within the first year after opening, the HOV facility should be carrying a minimum of 800 vehicles per hour (vph) or 1800 passengers per hour during the peak hour. Traffic volumes lower than these minimums could result in an HOV lane that is perceived by the public to be underutilized. These are minimum traffic volumes that would be expected to grow over time. In the westbound direction, the predicted peak-hour volume for the HOV lane in 2002 before the El Dorado Hills Boulevard off-ramp is 610 vehicles per hour (vph). This volume is expected to increase to 930 vph by 2015 and to 1,170 vph by 2025. Assuming a uniform growth rate, the HOV volume would reach 800 vph by 2010. In the eastbound direction, the predicted peak-hour volume for the HOV lane in 2002 after the Latrobe Road on-ramp is 770 vph. This volume is expected to increase to 1,160 vph by 2015 and to 1,410 vph by 2025. Again, assuming a uniform growth rate, the HOV volume would attain the 800 vph level in 2003.

Although the HOV lane is not predicted to meet the first-year criteria of 800 vph, past experience has shown significant increases in the volume of HOVs. In the past eleven years, for example, the peak-hour HOV volume on northbound Route 99 at 47th Avenue has increased from 17

percent to 27 percent. (This predicted increase in HOVs has been factored into the predicted future demand volumes.) After the completion of the first section of the HOV lane, the peak-hour volume was 1,175 vph. By 2000, the HOV lane had been extended to the north and to the south of the original segment and the volume had increased to 1,720 vph. Given the success of the Route 99 HOV lane, it is likely that an HOV lane on U.S. 50 will be well used.

2.2.5.2 Conclusion

The HOV Lanes Alternative is superior to the Mixed Flow Lanes Alternative and the No-Build Alternative. Although the Mixed Flow Lanes Alternative performs slightly better in the eastbound direction, the HOV Lanes Alternative provides a significantly better operation for the westbound direction of U.S. 50. The HOV lanes are not predicted to meet the Caltrans guideline for a first-year, peak-hour volume of 800 vph; however, the volume in the eastbound direction should reach 800 vph by 2003 (Tables 6 and 7). The HOV lanes would increase the efficiency of the freeway by moving more passengers per vehicle, which can reduce congestion along the corridor and reduce vehicle pollutant emissions. Additionally, HOV lanes encourage the use of transit systems and provide a reliable transit alternative to commuting alone. Therefore, the HOV Lanes Alternative is recommended.

Benefits of the Preferred Add HOV Lanes Alternative

- quicker trips for those who carpool, vanpool, or take buses
- reduced congestion on the freeway and on parallel roads
- increased carrying capacity of U.S. 50
- maximized use of existing and planned park-and-ride facilities
- improved air quality

2.3 Alternative Considered but Eliminated from Further Discussion: Light Rail in Median

The proposed project was the result of efforts by a Caltrans multi-disciplinary project team to identify and study a range of alternatives for the proposed project. Besides the addition of HOV lanes and mixed-flow lanes, provisions for extension of light rail transit was considered. Reserving the median for a light rail extension at some point in the future has a number of disadvantages, including difficulty of access to stations, high capital cost particularly at stations, and the difficulty and high cost of connecting efficiently to an adjacent line whose terminus most likely would be outside the U.S. 50 right of way (Highway 50 Corridor Capacity Study 12/98).

The detailed study of light rail extension is beyond the scope of this document. However, preliminary analysis shows that opportunities to construct a viable rail system consistent with the limited funds available are limited. Within the project area the grade is steep, making construction of light rail facilities difficult and expensive. Furthermore, current congestion

demands an immediate solution to facilitate the movement of traffic, and construction of a light rail line would require several years to accomplish.

At this time, the El Dorado County Transportation Commission has commenced a study of U.S. 50 improvements between El Dorado Hills and Camino, and the Folsom-El Dorado Joint Powers Agency is sponsoring a study of light-rail extensions between Folsom and Shingle Springs.

3.0 Relevant Environmental Issues

This chapter discusses the project setting and the existing conditions of the various resources that may be affected by or that may affect the proposed project alternatives.

3.1 Land Uses and Zoning

Urban land uses in El Dorado County are concentrated generally in the project area at El Dorado Hills, Bass Lake and Cameron Park. The predominant land uses in the project area are medium and high-density residential, commercial, light industrial, and grazing land. The current combined number of housing units in these communities is approximately 15,244. Given an adequate water supply, development in these areas is expected to increase significantly the number of housing units to over 55,198 by year 2022. In nearby Placerville, housing units are expected to grow from 8,925 in year 1997 to 13,983 in year 2022. The abundance of undeveloped land offering one acre and larger home sites near the Sacramento job market makes this area attractive for bedroom community development. The proposed development from El Dorado Hills to east of Placerville would result in significant cumulative traffic impacts to U.S. 50.

The El Dorado County Planning Department estimates that the primary changes in development patterns in this area will occur as large tracts of undeveloped land are converted to urban land uses. Such changes will occur, for example, in the planned communities located within the El Dorado Hills and Bass Lake Road areas. Within these communities urban/suburban development patterns will intensify and expand.

The core area around the intersection of El Dorado Hills Boulevard and U.S. 50 is planned to be the future hub of economic development in western El Dorado County. Existing land uses in this area include golf courses, fire station, schools, commercial and several residential subdivisions north of the El Dorado Hills Interchange. A commercial center is located to the east of El Dorado Hills Boulevard between Park Drive and U.S. 50. South of the El Dorado Hills Interchange, construction has begun on two other planned commercial developments. A business park is located south of White Rock Road between Latrobe Road and the County line. Currently, it has reached 15 percent buildout.

3.1.1 Jobs-Housing Balance in the Study Area

Compared to El Dorado County as a whole, the study area shows population, housing and employment more than doubling from 1997 to 2022 (Table 8). Sacramento County shows a fairly stable jobs/housing balance from 1997 through 2022. However, El Dorado County as a whole and the study area in particular show a widening gap between jobs and housing units. In

the study area, the disparity between jobs and housing grows from 1,985 in 1997 to 7,247 in 2022. While job growth is increasing in western El Dorado County, a major percentage of the population is still expected to be employed in Sacramento County, placing an extra burden on the existing freeway system in El Dorado County.

Table 8. Population, Employment and Housing Growth for El Dorado County and Project Area (1997 and 2022)

County/Community	1997	2022	Percent Change
El Dorado County*			
Population	112,917	217,204	92.4%
Employment	27,845	58,241	109.2%
Housing	47,310	88,385	86.8%
Study Area**			
Population	49,514	121,946	146.3%
Employment	17,005	38,498	126.4%
Housing	18,990	45,745	140.9%
Sacramento County			
Population	1,139,504	1,646,283	44.5%
Employment	501,859	766,182	52.7%
Housing	452,961	655,427	44.7%

Source: Sacramento Area Council of Governments, 1999.

*Excludes the Tahoe Basin portion of the County.
**The "Study Area" combines data from Regional Analysis Districts: El Dorado Hills, Cameron Park-Shingle Springs, and Placerville.

3.2 Air Quality

The proposed project is located in El Dorado County, which lies within the Mountain Counties Air Basin. The U.S. Environmental Protection Agency (EPA), pursuant to the National Ambient Air Quality Standard, has designated El Dorado County as an "attainment" area (the area has attained the air quality standard) for carbon monoxide (CO) and PM-10 (particulate matter 10 microns or less in diameter). EPA also has designated the County a "severe non-attainment" area (the area has not attained the air quality standard) for ozone. Under the California Ambient Air Quality Standards (CAAQS), El Dorado County is currently designated as in "attainment" for CO and "non-attainment" for both Ozone and $PM_{10.}$

3.3 Noise

A Type I project is defined by 23 CFR (Code of Federal Regulations), Section 772 as "a proposed Federal or Federal-aid highway project for the construction of a highway on a new location, or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment, or increases the number of through-traffic lanes." FHWA has clarified their interpretation in the following excerpts from the FHWA Highway Traffic Noise Analysis and Abatement – Policy and Guidance (June 1995): "…a Type I project is any project that has the potential to increase noise levels at adjacent receivers. Such a project specifically

creates a totally new noise source, or increases the volume or speed of traffic or moves the traffic closer to the receivers…" The addition of an interchange/ramp/auxiliary lane/truck-climbing lane, etc. to an existing highway is considered to be a Type I project.

This project meets the definition of a Type 1 project. For Type 1 projects, traffic noise must be analyzed for all alternatives under consideration and traffic noise impacts identified. If noise impacts are identified, noise abatement must be considered when reasonable and feasible.

Traffic noise impacts are identified when one or more of the following occur: 1) a substantial noise increase; or 2) the Noise Abatement criteria is approached or exceeded:

1) Substantial Noise Increase: A noise increase is substantial when the predicted noise exceeds existing noise levels by 12 dBA, Leq(h).
2) Noise Abatement Criteria approached or exceeded: A traffic noise impact will also occur when the predicted noise level(s) approach (within 1 dBA) or exceed the Noise Abatement Criteria (Table 9). The Noise Abatement Criteria for residences is 67 dBA, Leq(h).

Table 9. Activity Categories and Noise Abatement Criteria (NAC)

Activity Category	NAC, Hourly A-Weighted Noise Level, dBA $L_{eq}(h)$	Description of Activities
A	57 Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 Exterior	Picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 Exterior	Developed lands, properties, or activities not included in Categories A or B above.
D	--	Undeveloped lands.
E	52 Interior	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

The noise environment in the project area is dominated by noise from traffic traveling on U.S. 50. Sound walls and berms have been constructed at the newer subdivisions west of Cambridge Road to reduce noise from the highway. However, older subdivisions north and west of Cameron Park Drive along Country Club Drive are directly adjacent to U.S. 50 and do not have intervening sound walls.

Table 10 summarizes the noise modeling results for existing conditions. The measurement and modeling results indicate that existing worst-hour traffic-noise levels behind the existing sound walls and berms are typically less than 67 dB-Leq(h). At residences adjacent to the highway where there are no sound walls, existing sound levels are in the range of 61 dB-Leq(h) to 69 dB-Leq(h). (Appendix A shows measurement locations for existing noise.)

Table 10. Summary of Existing Traffic Noise Levels

Receiver	Location	Type of Development	Activity Category Noise Abatement Criterion (dB-L_{eq}[h])	Existing Worst-Noise-Hour Noise Level (dB-L_{eq}[h])
8	residential subdivision	residence	B (67 dB)	62
9	residential subdivision	residence	B (67 dB)	68
10	residential subdivision	residence	B (67 dB)	68
11	residential subdivision	residence	B (67 dB)	66
12	residential subdivision	residence	B (67 dB)	61
13	residential subdivision	residence	B (67 dB)	69
A	residential subdivision	residence	B (67 dB)	65
B	residential subdivision	residence	B (67 dB)	69
C	residential subdivision	residence	B (67 dB)	69
D	residential subdivision	residence	B (67 dB)	69
E	residential subdivision	residence	B (67 dB)	69
F	public land	fire station	C (72 dB)	63
G	residential subdivision	residence	B (67 dB)	63
H	residential subdivision	residence	B (67 dB)	69

3.4 Hazardous Materials

A hazardous waste evaluation consisting of an Initial Site Assessment (ISA) included a field inspection and hazardous waste records searches. The ISA concluded that no hazardous waste is

expected to be encountered within the project limits. However, three fuel stations in the vicinity are known to have ground and surface water contamination.

Table 11. Existing Listed Hazardous Waste Sites

Address	Type of Site
Exxon, 4051 Cameron Park Drive, Shingle Springs	Groundwater contamination – gasoline, CRWQCB* active case
Shell, 3405 Coach Lane, Shingle Springs	Groundwater contamination – gasoline, CRWQCB active case
ARCO, 3969 Cameron Park Drive, Shingle Springs	Groundwater contamination – gasoline, CRWQCB active case

*CRWQCB - California Regional Water Quality Control Board

The California geologic map shows ultramafic rock, which may contain asbestos-bearing serpentine rock, in the vicinity of the project. However, Caltrans geologists conducted site visits to these areas and from their observations, concluded that asbestos-bearing serpentine rock does not occur in the site vicinity.

In addition to a Hazardous Waste Evaluation, and as part of the Clean Air Act, and the National Emission Standards for Hazardous Air Pollutants (NESHAP), Caltrans had a site investigation performed for asbestos-containing materials (ACM) and lead-based paint at each bridge location. The laboratory analyses found ACM in the following structures: the Latrobe Road Undercrossing, Clarksville Road Undercrossing, Bass Lake Road Undercrossing and Cameron Park Undercrossing.

The potential for hazardous waste may exist in the form of Aerially Deposited Lead (ADL). Also, the yellow traffic stripe in the existing portion of the roadway may contain heavy metals such as lead and chromium, which may exceed hazardous waste thresholds established by the California Code of Regulations (CCR) and may produce toxic fumes when heated.

3.5 Biological Resources

The project area is at the base of the Sierra Nevada foothills. The dominant vegetation types are non-native grassland, interspersed with oak woodland. The eastern portion of the project area is dominated by chaparral vegetation. The non-native grassland is composed of typical species such as wild oat (*Avena* sp.), ripgut brome (*Bromus diandrus*), soft chess (*B. hordeaceous*), as well, as non-native forbs such as yellow star thistle (*Centaurea solstitialis*). The oak woodland areas are composed of black oak (*Quercus kellogii*), Valley oak (*Q. lobata*), and interior live oak (*Q. wislizenii*). The chaparral vegetation composed of manzanita (*Arctostaphylos viscida*), chamise (*Adentstoma fasciculata*), buck brush (*Ceanothus* sp.), as well as, several of the rare species including Stebbin's morning glory (*Calystegia stebbinsii*), Pine Hill ceanothus (*Ceanothus roderickii*), El Dorado bedstraw (*Galium californicum* ssp.*sierrae*), Layne's ragwort (*Senecio layneae*), and El Dorado County mule ears (*Wyethia reticulata*).

3.5.1 Sensitive Plants and Animals

SENSITIVE PLANTS. The California Natural Diversity Data Base (CNDDB) was consulted for sensitive plant species that occur or potentially occur in the project's geographic area. Seven sensitive plant species are known to occur in the project area on ultramafic, gabbroic, or serpentine soils (Table 11). During field surveys, five of these species were observed within the project area.

Table 12. Sensitive Plants that Occur or Potentially Occur in the Project Area

Common Name	Scientific Name	Federal/State/CNPS Status
*Stebbin's morning glory	*Calystegia stebbinsii*	E/E/1B
*Pine Hill ceanothus	*Ceanothus roderickii*	E/R/1B
Red Hills soaproot	*Chlorogalum grandiflorum*	SC/--/1B
Pine Hill flannelbush	*Fremontodendron decumbens*	E/R/1B
*El Dorado bedstraw	*Galium californicum* ssp.s*ierrae*	E/R/1B
*Layne's ragwort	*Senecio layneae*	T/R/1B
*El Dorado County mule ears	*Wyethia reticulata*	SC/--/1B

* = observed within project area
E = listed as endangered under the federal and California Endangered Species Acts.
T = listed as threatened under the federal and California Endangered Species Acts.
R = rare under the California Native Plant Protection Act
1B = rare, threatened, or endangered in California and elsewhere

SENSITIVE ANIMALS. The CNDDB was consulted also for sensitive animal species that have the potential to occur in the project vicinity. Nineteen birds, two bats, two mammals, four amphibians, one reptile, and three invertebrate animal species were identified by searching the CNDDB and the list generated by the U.S. Fish and Wildlife Service for the project area. Those with moderate to high potential for occurrence are discussed below.

Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), a federally threatened species, is associated with elderberry shrubs throughout the Central Valley. Several elderberry shrubs occur within the project area. Each shrub was mapped and inspected for evidence of the Valley elderberry longhorn beetle. No evidence was observed.

Sacramento splittail (*Pogonichtys macrolepidotus*), a federally threatened species, is associated with slow moving river sections and dead end sloughs. The drainages within the project area are within the watershed of the Cosumnes River. Because the Cosumnes is connected to the Sacramento River, the drainages potentially provide suitable habitat for the spittail. However, no work is proposed in any of the creeks or drainages.

Western spadefoot (*Scaphiopus hammondii*), a federal species of concern and a State species of special concern, occur within shallow streams with riffles, as well as, seasonal wetlands. The creeks and drainages within the project area provide suitable habitat for the spadefoot. However, no work is proposed in any of the creeks or drainages.

California red-legged frog (*Rana aurora draytonii*), a federally threatened species and State species of concern, and the foothill yellow-legged frog (*Rana boylii*), a federal and State species of concern, are known to occur in aquatic areas in the foothills. There are no known occurrences within five miles of the project area. U.S. 50 crosses several drainages that provide suitable habitat for the frogs. However, no work is proposed in any of the creeks or drainages.

Northwestern pond turtle (*Clemmys marmorata marmorata*), a federal species of concern and a State species of special concern, occupies ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation in woodlands, grasslands, and open forests. The creeks and drainages within the project area provide suitable habitat for the turtle. However, no work is proposed in any of the creeks or drainages.

Giant garter snake (*Thamnophis gigas*), a federal and State threatened species, occupies sloughs, canals, and other small waterways. The creeks and drainages within the project area provide suitable habitat for the snake. However, no work is proposed in any of the creeks or drainages.

White faced ibis (*Plegadis chihi*), a federal species of concern and a State species of special concern, occupies freshwater marshes with tules, cattails, and rushes. The creeks and drainages within the project area provide suitable habitat for the ibis. However, no work is proposed in any of the creeks or drainages.

Long-eared Owl (*Asio otus*), a State species of special concern, nests in abandoned crow, hawk, or magpie nests, within dense riparian stands. The creeks and drainages within the project area potentially provide nesting habitat for the owl. However, no work is proposed in any of the creeks or drainages.

Purple Martin (*Progne subis*), a State species of special concern, nests within oaks, cottonwoods, and other deciduous trees. Also nests in vertical drainage holes under elevated freeways and highway bridges. Suitable habitat occurs near Bass Lake Road and at bridges. No nests were observed at highway bridges.

Yellow Warbler (*Dendroica petechia brewsteri*), a State species of special concern, nests in riparian areas and chaparral. Suitable habitat occurs near creeks and drainages and within the chaparral near Cameron Park. However, no work within these areas is proposed.

Tricolored blackbirds (*Agelaius tricolor*), a federal species of concern and a State species of special concern, nest colonially in the vicinity of fresh water and marshy areas. Colonies prefer heavy growths of cattails and tules, and will utilize blackberry thickets, as well. The thick growths of cattails in the drainage just east of El Dorado Hills Boulevard potentially provide suitable nesting habitat. Tricolored blackbirds were not observed during field surveys.

3.6 Historic and Cultural Resources

The foothill location of the project area was attractive historically not only as a transportation corridor, but for mining activities and agricultural pursuits. The Placerville Road, a main thoroughfare that connected Sacramento and Placerville, provided access to opportunities for settlement, businesses, and mining. Clarksville, established along Carson Creek, and the

Mormon Tavern provided early way stations along the Placerville Road and flourished through the 1850s and 1860s as a service center for travelers.

Mining began early throughout the project vicinity, but was not large-scale. Carson and Deer Creeks and the Shingle Springs mining district were placer mined in the late 1840s through the 1850s. Larger mining concerns occurred within the Shingle Springs mining district, and several mines, including the Gray Mine and the Pyramid Mine, were successful. Mining was conducted not only for gold but also for silver, copper, and marble. During the late 1800s and early 1900s, mining activities lapsed for the most part in the project vicinity. However, by the 1930s, several dragline dredge concerns were present on Deer Creek, the lower reaches of Carson Creek, and at Shingle Springs.

By the early 1870s, the project vicinity supported road systems, homesteads, and ranches. Many of the ranches were primarily dairy operations, although poultry, small amounts of grain, and subsistence crops also were raised. Many of the area ranchers transferred herds to higher mountain pastures during the summer to exploit the richer forage, returning the herds to the foothills for the winter season. This pattern of seasonal grazing continues to occur within the project vicinity (Fernandez and Fryman 1999; El Dorado County 1895, 1922; Peak & Associates 1987a; Rood 1992).

In addition to the Placerville Road, which was a branch of the Carson Emigrant Trail established in 1849, the Mormon Hill Toll Road and the Tong Toll Road contributed to the economy and regional settlement in the project vicinity.

The Sacramento Valley Railroad was extended from Folsom to Shingle Springs in 1865, providing freight a more expedient mode of transportation than the Placerville Road. Because of the concomitant decrease in traffic along the Placerville Road, business to the way stations and hotels along the road was drastically reduced. However, in the early 1900s, with the expanding population in the foothill region, traffic increased between Sacramento and Placerville. Road clubs, such as the Placerville and Sacramento Pioneer Road Club, lobbied for wider and less circuitous routes.

State Route 11 was the first paved route through the project vicinity. In 1940, a new section of the route, then renamed U.S. Highway 50, was opened. Until 1955, the remainder of the section of U.S. Highway 50 (State Route 11) continued along the 1917 route. In October 1955, the five-mile section between 2.4 miles east of Clarksville to Shingle Springs was realigned and widened and was opened to public traffic.

The project Area of Potential Effects (APE) was subject to pedestrian survey by two archaeologists on February 27 and 28, 2000. A literature and records search was made of the proposed project area prior to conducting the field inventory. The record search also included an examination of files at the California Historical Resources Information System maintained at the Northeastern Information Center, California State University, Sacramento. Six prehistoric sites, 48 historic sites and/or isolated resources, and seven multi-component historic/prehistoric sites were identified within a 0.8 km (0.5 m) radius of the project area. The prehistoric sites consist

primarily of bedrock mortar sites, a few of which have associated midden. The historic resources consist of dry-laid rock wall remnants, historic road segments, mining-related shafts, tailings, prospects, and ditches, ranch/homestead remains, and historic cemeteries. The multi-component sites comprise prehistoric bedrock mortar features associated with historic debris, cemeteries, mining features, and/or homestead remains. These results are indicative of the sensitive nature of the project area for cultural resources.

Letters were sent to the Native American Heritage Commission, numerous local Native American representatives, the El Dorado County Pioneer Cemeteries Commission, the El Dorado County Historical Museum, the El Dorado County Historical Society, and the El Dorado County Planning Department in order to solicit information about cultural resources located within the project APE. Responses were received from the El Dorado County Historical Society and the United Auburn Indian Community of the Auburn Rancheria. Neither indicated any concerns with historic or Native American issues. The El Dorado County Pioneer Cemeteries Commission provided detailed information concerning historical resources within and adjacent to the project APE.

3.7 Scenic Resources/Visual Impacts

The project area is located along the western margin of the Sierra Nevada foothills at an elevation ranging from 200 m to 350 m (656 ft to 1,148 ft) above mean sea level. Most of the median and right-of-way along U.S. 50 in the vicinity of the project area is highly modified and disturbed, and is either barren of vegetation or is dominated by weedy, disturbance-tolerant species.

3.8 Environmental Issues Eliminated from Further Impact Evaluation

Farmland: Because this project proposes to add lanes within the median of the existing roadway, it will not impact farmland or Williamson Act Contract land.

Geology and Soils: Based on the Alquist-Priolo Earthquake Fault Zoning Map, the project area does not present any hazards with regard to earthquake fault rupture. In addition, no known surface rupture has been observed in recent years. Hence, the project would have little to no exposure for people or structures to potential adverse effects resulting from earthquake fault rupture. Caltrans' Preliminary Geotechnical investigation concluded that the project area is capable of supporting the proposed project.

Floodplain: The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map for Sacramento County indicates that the proposed project is within Zone X, a designation for areas that lie outside the 500-year floodplain. District Flooding Records show no recorded instances of flooding within the limits of the proposed project. Therefore, the project would have no effect upon the base flood elevation.

Community Impact: The proposed widening within the median of an existing roadway would not physically divide an established community, nor would it impact any minority, disadvantaged, or low-income community.

Public Services and Utilities: The project is not expected to require relocation of any buried telephone and aerial electric utilities. However, if utilities were encountered, they would be relocated in conformance with the procedures outlined in the "Manual on High and Low Risk Underground Facilities Within Highway Rights of Way." Project engineers would coordinate with utility companies to minimize any interruption of service. El Dorado County or utility and service companies would notify affected properties in advance of any service disruption. Caltrans would coordinate with El Dorado Irrigation District regarding any water and wastewater infrastructure located within the project area.

No impacts to public services would occur as a result of the project. Improved traffic flow on U.S. 50 should improve response times for fire protection, emergency, and law enforcement services. Pre-construction contacts with service agencies would notify them of construction schedules, and a Traffic Management Plan would minimize potential delays during construction.

4.0 ENVIRONMENTAL EVALUATION

The following technical studies were prepared to assist in the environmental evaluation of the proposed project.

- Natural Environmental Study Report
- Traffic Operations Study Report
- Noise Study Report
- Community Impact Assessment
- Air Quality Analysis Report
- Preliminary Geotechnical Report
- Preliminary Drainage Report
- Hazardous Waste Evaluation
- Visual Impact Assessment
- Historic Property Survey Report and Finding of Effect

These studies are available for review at:

Caltrans District 3, Office of Environmental Management
2800 Gateway Oaks Drive, Suite 100
Sacramento, CA 95833
Attention: Nancy MacKenzie (916) 274-5809

5. ENVIRONMENTAL CHECKLIST

One of the basic purposes of CEQA is to inform state, regional and local governmental decision makers and the public of impacts of proposed activities, and in particular, those impacts that are either significant or potentially significant.

Determining and documenting whether an activity may have a significant effect on the environment plays a critical role in the CEQA process. The following CEQA Environmental Significance Checklist is a device that was used to identify and evaluate any potential impacts from the proposed activity on physical, biological, social and economic resources. This checklist is not a NEPA requirement.

Differences do exist in the way impacts are addressed in CEQA environmental documents as compared to NEPA environmental documents. While CEQA requires that environmental documents state a determination of significant or potentially significant impacts, as has been done in the following CEQA checklist, NEPA does not. It can be seen that having to address significant or potentially significant impacts in joint CEQA and NEPA environmental documents can be confusing especially in those instances where the two laws and implementing regulations have different thresholds of significance.

Under NEPA, the degree to which a resource is impacted is only used to determine whether a NEPA Environmental Impact Statement (EIS) or some lower level of NEPA documentation would be required. Under NEPA, once the federal agency has determined the magnitude of the project's impacts and the level of environmental documentation required, it is the magnitude of the impact that is evaluated in the environmental document and no judgment of its degree of significance is deemed important in the document text. For the purpose of the impact discussion in this document, determination of significant or potentially significant impacts is made only in the context of CEQA. Although not explicitly identified in this document, impacts in the context of NEPA can be assumed to be minimal or non-existent.

The following checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Responses to the checklist questions are included in Section VI following the checklist. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, thresholds.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	X	☐
b) Substantially damage scenic resources, including, but	☐	☐	☐	X

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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?	☐	X	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	X	☐	☐
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. 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?	☐	☐	☐	X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	X
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	X
III. AIR QUALITY -- 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. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	X	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	X	☐
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)?	☐	☐	X	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	X

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
e) Create objectionable odors affecting a substantial number of people?	☐	☐	X	☐
IV. BIOLOGICAL RESOURCES -- 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?	☐	X	☐	☐
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 US Fish and Wildlife Service?	☐	X	☐	☐
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?	☐	X	☐	☐
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?	☐	X	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	X
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?	☐	☐	☐	X
V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	X	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	X	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	X

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
d) Disturb any human remains, including those interred outside of formal cemeteries?		X		
VI. GEOLOGY AND 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.				X
ii) Strong seismic ground shaking?				X
iii) Seismic-related ground failure, including liquefaction?				X
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?		X		
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				X
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?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
VII. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		X		
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?				X
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within		X		

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
one-quarter mile of an existing or proposed school?				
d) Be located on a site that 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?	☐	☐	☐	X
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?	☐	☐	☐	X
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?	☐	☐	☐	X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	X
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?	☐	☐	☐	X
VIII. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	X
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)?	☐	☐	X	☐
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?	☐	☐	X	☐
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?	☐	☐	X	☐

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	X	☐
f) Otherwise substantially degrade water quality?	☐	X	☐	☐
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?	☐	☐	☐	X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	X
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?	☐	☐	☐	X
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	X
IX. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?	☐	☐	☐	X
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?	☐	☐	☐	X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	X
X. MINERAL RESOURCES -- 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?	☐	☐	☐	X
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?	☐	☐	☐	X
XI. NOISE – 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?	☐	X	☐	☐

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?		X		
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?		X		
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		X		
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?				X
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?				X
XII. POPULATION AND HOUSING -- 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)?			X	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X
XIII. PUBLIC SERVICES a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?				X
Police protection?				X
Schools?				X

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Parks?	☐	☐	☐	X
Other public facilities?	☐	☐	☐	X
XIV. RECREATION –				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	X
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?	☐	☐	☐	X
XV. TRANSPORTATION/TRAFFIC -- Would the project:				
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☐	X
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	X
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?	☐	☐	☐	X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	X
e) Result in inadequate emergency access?	☐	☐	☐	X
f) Result in inadequate parking capacity?	☐	☐	☐	X
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	X
XVI. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	X

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	X
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?	☐	☐	☐	X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	X
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?	☐	☐	☐	X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	X
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	X
XVII. MANDATORY FINDINGS OF SIGNIFICANCE –				
a) Does the project have the potential to 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, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	X	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	X	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	X

6.0 DISCUSSION OF ENVIRONMENTAL EVALUATION

This Initial Study/Environmental Assessment evaluates the environmental issues that could affect the planning, scheduling, design, and cost of the proposed median widening on U.S. 50 from El Dorado Hills Boulevard to South Shingle Road in El Dorado County. The following discussion responds to each question in the Environmental Significance checklist.

I. AESTHETICS. Would the project:

a) Have a substantial adverse effect on a scenic vista?

No. U.S. 50 is a major east/west corridor connecting the cities of Sacramento and South Lake Tahoe. The route becomes an increasingly significant visual corridor as it traverses eastward toward Lake Tahoe. The proposed project would not alter the visual corridor considerably, particularly since its location is at the more urbanized western edge of El Dorado County. Two lanes of traffic and shoulders would be added in the median, rather than on the outside, so the project would not result in a larger "footprint" that might impact the scenic vista of roadway users or sensitive receptors adjacent to the roadway. With the addition of two lanes and shoulders, some earthen median would remain to provide visual separation between eastbound and westbound traffic.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No. This portion of U.S. 50 is not a designated State Scenic Highway. The proposed lane additions would be placed within the existing right of way and highway median. No scenic resources, rock outcrops or historic buildings would be removed. Any exposed rock outcroppings are a result of the previous highway excavations. No significant natural rock outcroppings are seen within the project limits. See response to IV(b) regarding tree removal and replacement and Section 9, Summary of Mitigation Measures.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

The proposed lane additions within the existing earthen median would not substantially degrade the visual character or quality of the site and its surroundings. The visual character of the highway would remain and some of the earthen median would be preserved.

The noise study report for this project has determined that noise abatement (sound walls) is reasonable and feasible on the north side of U.S. 50, beginning at an area east of Cambridge Road and ending west of Cameron Park Drive (Appendix A). Preliminary information on the physical characteristics of potential soundwalls (e.g., physical location, length, and height) is provided in Section XI. Noise, below. Soundwalls would separate adjacent homes visually from the highway. Views of the highway from homes on higher elevations would be limited since the

distances are far and trees provide a buffer. Any visual impacts of soundwalls for the roadway user would be reduced by incorporating visual enhancements and grafitti prevention, such as landscaping. The final design of soundwalls (if included) would be based on final project design. Refer to Section XI. Noise, below, for further information.

d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

No. The highway alignment includes both horizontal and vertical curves as it traverses the rolling topography that is typical of the area. Although the highway is at grade near the El Dorado Hills Boulevard Interchange, it is lower for the most part than the surrounding lands, and homes are situated generally on higher hillsides away from the highway. Furthermore, the proposed project is intended to relieve peak-hour traffic; nighttime traffic would not be expected to increase as a result of the project. If soundwalls are constructed, appropriate materials and landscaping would minimize potential glare.

II. AGRICULTURE RESOURCES. 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?

No farmland would be impacted by the proposed project. The project would construct new lanes entirely within the existing median except for a three-foot sliver in the vicinity of the eastbound Bass Lake Grade. All construction is within Caltrans right of way.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

The proposed project would not conflict with existing zoning for agricultural use or impact lands in Williamson Act contract.

c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

The project would not directly involve other changes in the existing environment that would convert farmland to non-agricultural use. However, the project could indirectly result in converting farmland to non-agricultural use. The land adjacent to the project area is zoned for residential and commercial use. Despite the planned development of the study area, an argument could be made that the proposed project would remove a barrier to build-out of approved developments along the corridor. Such a scenario is speculative, and further, build-out of residential and commercial zoned areas adjacent to the project would be consistent with County goals. Therefore, this possible indirect effect by the proposed project would not be considered an impact.

III. AIR QUALITY. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

No. Before adopting the Metropolitan Transportation Plan (MTP) and Metropolitan Transportation Improvement Program (MTIP), the Sacramento Area Council of Governments (SACOG) performed a quantitative analysis to determine if implementation of the projects included in these documents would result in violations of the ozone air quality standard. Based on their analysis, SACOG concluded that implementing those projects, included in the MTP and MTIP, would not result in a violation of the ozone standard. The proposed project is a component of the set of projects included in the MTP and MTIP and conforms to the State Implementation Plan for regional air quality.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

No. A project-level impact analysis was performed to predict the carbon monoxide (CO) concentration at the sensitive receptor locations for both Build and No-Build scenarios for years 2002, 2015, and 2025. Under peak traffic volume and worst-case meteorological conditions, the predicted project CO contribution, when combined with the background CO level, does not exceed the Federal and State ambient CO standards at the receptors. Thus, the proposed project would have insignificant local air quality impacts. The predicted maximum CO concentrations, in parts per million (ppm), for years 2002 and 2025, and the Federal and State ambient CO standards are listed in Table 13.

Table 13. Predicted Maximum CO Concentrations

	2002			2025			**CO Standards**	
	HOV	Mixed Use	No Build	HOV	Mixed Use	No Build	**State**	**Federal**
1-HR	6.0	6.5	4.8	3.2	4.0	2.8	**20**	**35**
8-HR	4.2	4.6	3.4	2.2	2.8	2.0	**9.0**	**9.0**

The proposed project would result in the generation of short-term construction-related air pollutant emissions. Exhaust emissions from construction equipment would contain reactive organic gases (ROG), nitrogen oxides (NOx), CO, and $PM_{10.}$ However, the largest percentage of pollutants would be windblown dust (also referred to as fugitive dust or PM_{10}) generated during excavation, grading and hauling activities. Dust and odors could annoy nearby businesses, residents and traveling public. However, these impacts would be temporary and transitory. The provisions of Caltrans Standard Specifications, Section 7-1.01F, "Air Pollution Control" and

Section 10, "Dust Control" require the contractor to comply with El Dorado County Air Pollution Control District and other local jurisdiction rules, regulations, ordinances and statutes, and should effectively reduce and control temporary construction related emission impacts.

Also, see response to III(a) above.

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 that exceed quantitative thresholds for ozone precursors)?

The proposed project could contribute to cumulative air quality impacts during its construction. Foreseeable future development and transportation improvement projects in the project vicinity, if constructed concurrently, would result in an increase in exhaust, dust, and other miscellaneous short-term emissions associated with construction activity. However, compliance with Caltrans Standard Specifications (Response to III(b) above) would reduce short-term air quality impacts to less-than-significant levels. Therefore, the project's incremental contribution to cumulative short-term emissions would be minor since the project is implementing its fair share of mitigation measures designed to reduce cumulative impacts.

d) Expose sensitive receptors to substantial pollutant concentrations?

No. See response to III(a) and (b) above.

e) Create objectionable odors affecting a substantial number of people?

No. See response to III(a) and (b) above.

IV. BIOLOGICAL RESOURCES. 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?

The proposed project would not adversely affect, either directly or through habitat modifications, any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or identified by the California Department of Fish and Game (DFG) or U.S. Fish and Wildlife Service (USFWS).

Several elderberry shrubs occur within the project area along the shoulder of the highway. Elderberry shrubs are the primary host plant of the federally threatened Valley elderberry longhorn beetle. Because the widening in areas adjacent to the elderberry shrubs is to the inside

median, there will be no effect on the Valley elderberry longhorn beetle. The Caltrans project biologist contacted the USFWS, which agreed that the project would have no effect on the species as long as the elderberry shrubs are noted as Environmentally Sensitive Areas (ESAs) with a 6.09 m (20 ft) setback around each shrub.

Construction of a soundwall may require removing one elderberry shrub. Caltrans and FHWA have initiated formal consultation pursuant to Section 7 of the Endangered Species Act as amended (1973) with USFWS to address the potential effects and required conservation measures. The Section 7 consultation also considers the elderberry shrubs along the shoulder of the highway. USFWS will issue a Biological Opinion (BO) that describes required mitigation for the elderberry shrub(s). The BO will be attached to the final environmental document for this project (Negative Declaration/Finding of No Significant Impact).

- The area containing several elderberry shrubs will be designated an Environmentally Sensitive Area (ESA) on project plans with a 6.09 m (20 ft) setback or to the paved shoulder, whichever is further. This setback is required around each shrub to avoid the area. The contractor will be instructed to avoid this area.

- USFWS will provide additional mitigation measures with its BO which could include: 1) transplanting the affected elderberry plant to a USFWS-approved compensation area and 2) planting additional elderberry seedlings or cuttings and associated native species at a USFWS-approved compensation area, or purchasing credits in a USFWS-approved mitigation bank.

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?

The project would not impact any riparian habitat or 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 or National Marine Fisheries Service (NMFS).

This project would result in impacts to three oak trees in the median just west of Bass Lake Road. The proposed soundwalls may impact 40 oak trees. These oak trees are remnants of oak woodlands.

Senate Concurrent Resolution 17 states that State agencies should make every effort to avoid impacts to oak woodlands. As final design of the project is completed, additional design modifications may result in a reduction in the numbers of oak trees impacted by construction of this project. Because the impacts to oak trees are primarily associated with proposed soundwalls, any associated landscaping would incorporate oak plantings to replace those impacted.

- Pursuant to DFG's Oak Protection Guidelines, Caltrans will plant acorns or oak seedlings at a replacement ratio of 5:1 for oak trees > 2 inches diameter at breast height (dbh) impacted

and 1:1 for oak trees < 2 inches dbh. Per DFG guidelines, Caltrans will maintain the oak plantings for a period of five years and Caltrans will complete a five-year Maintenance and Monitoring Plan. A minimum of 80 percent success rate (survival rate) at the end of the five-year monitoring period is recommended. Any trees planted as remedial action, for failure of initial planting, will be monitored by Caltrans for five years in a similar fashion to the initial planting.

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?

The project would impact approximately 0.01 ha (0.03 ac) of perennial wetland and 0.05 ha (0.13 ac) of seasonal wetland where soundwalls would be constructed. These areas are protected by Section 404 of the Clean Water Act and will require a Section 404 permit prior to project construction. Caltrans will mitigate these wetland impacts at the Caltrans Beach Lake Mitigation Bank, adjacent to Stone Lakes National Wildlife Refuge, if soundwalls are constructed.

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?

The project would not 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. The widening would occur within the median of an existing highway facility. The median is highly disturbed and does not represent wildlife habitat. At Clarksville Road Undercrossing and Bass Lake Road Undercrossing, where bridge widening would occur, there is evidence of Cliff Swallow nests.

- Cliff Swallow nests at Clarksville Road Undercrossing and Bass Lake Road Undercrossing will need to be removed prior to construction. The nests will be removed outside of the nesting season, prior to March 1 and after September 15, and continually removed during the nesting season to prevent nesting.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The proposed project does not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Because the project is within State right of way, local ordinance jurisdiction is not applicable.

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?

An adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan does not exist within the project area.

V. CULTURAL RESOURCES. Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in Sec. 15064.5?

The State Office of Historic Preservation concurred with FHWA's finding that implementation of the undertaking, as presently designed, would have no adverse effect on historic properties as long as certain protective measures are imposed pursuant to 36 CFR Sec. 800.5(b) (Appendix B).

- At certain culturally sensitive areas adjacent to the project area, all construction and related activities will take place within the highway median only. No parking, staging, or construction will occur outside the median area in this location. These instructions will be added to the Resident Engineer's Pending File and included on the contractor's plan and profiles.

- If previously undetected subsurface materials (e.g., bones, artifacts including arrowheads, bottles, etc.) are encountered during project construction, it is Caltrans policy (Environmental Handbook, Volume 2, Chapter 7) that work temporarily cease in the area of the find and that the contractor contact the Caltrans District Environmental Branch immediately. A qualified archaeologist will assess the significance of the finds and determine an appropriate course of action in consultation with the State Historic Preservation Officer.

- If human remains are unearthed during construction, State Health and Safety Code Section 76050.5 states that no further disturbance shall occur until the county Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. The District 3 Environmental Planning Branch shall be notified immediately (Environmental Handbook Section 1-2.2 and 7-8).

- Should project plans change to include any unsurveyed property, additional investigation will be necessary.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Sec. 15064.5?

The project will not cause a substantial adverse change in the significance of an archaeological resource, as long as the protective measures discussed in Section V(a) above are followed.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

There are no unique geologic features in the project area that would be affected by the project. It is not known whether paleontological resources or sites occur in the project area.

d) Disturb any human remains, including those interred outside of formal cemeteries?

The likelihood of the project disturbing any human remains is minimal. No remains were encountered during survey procedures and all known cemeteries occur outside the established right of way for U.S. 50. The protective measures discussed in Checklist item V (a), above, will be followed and will avoid or minimize any disturbance to previously undiscovered human remains. In addition:

- If human remains are unearthed during construction, State Health and Safety Code Section 76050.5 states that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. The District 3 Environmental Planning Branch shall be notified immediately (Environmental Handbook Section 1-2.2 and 7-8).

VI. GEOLOGY AND 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.

Based on the Alquist-Priolo Earthquake Fault Zoning Map, the project area does not present any hazards with regard to earthquake fault rupture. In addition, no known surface rupture has been observed in recent years. Hence, the project will have little to no exposure for people or structures to potential adverse effects resulting from earthquake fault rupture.

ii) Strong seismic ground shaking?

The Caltrans California Seismic Hazard Map, dated 1996, indicates that faults near the project area -- the Prairie-Creek-Spenceville-Dentman Fault (PSD), Bear Mountain Fault (BWM), Foresthill Fault (FHM) and Grass Valley Fault (GMT) -- could produce a maximum credible earthquake (MCE) of magnitude 6.5 on the Richter Scale. An MCE for a site is defined as the maximum earthquake that appears possible based on presently known geologic evidence. A Richter magnitude of 6.5 can be destructive in areas up to about 62 miles across where people live. The map indicates that the maximum credible earthquake in the project area would result in peak ground-shaking intensities of less than 1 on the Richter Scale, a magnitude that generally is not felt, but recorded. The proposed improvements would not increase existing potential geotechnical hazards.

iii) Seismic-related ground failure, including liquefaction?
Soil within this project is mainly low plastic, silty clay soils (ML/CL soils) based on the Unified Soil Classification System. Depth to bedrock is about 3 m or less. The water table was not observed in the soil during the preliminary geotechnical investigation. Hence, it is unlikely the soil would liquefy or ground failure would occur under the potential MCE shaking.

iv) Landslides?
The project proposes to add lanes within the median of an existing roadway and may include soundwalls. At the time of the preliminary geotechnical report, no active landslides were identified within the project area. It is unlikely that landslides would impact the project.

b) Result in substantial soil erosion or the loss of topsoil?

The proposed project would require the removal of existing ground cover, soil, and rock within the median and at proposed sound wall locations. Caltrans would implement measures in compliance with the National Pollutant Discharge Elimination System (NPDES) permit requirements of the Central Valley Regional Water Quality Control Board. The NPDES permit requirements and the Section 404 (Clean Water Act) permit requirements for this project would provide adequate protection of water resources and associated habitats. These measures may include, but are not limited to, temporary erosion control fencing and permanent erosion control measures such as seeding and mulching. Fill slopes would be constructed at 1:2 (Vertical:Horizontal) or flatter. Fill slopes would be constructed according to Sections 19-5 and 19-6 of Caltrans Standard Specifications.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Based on the Unified Soil Classification System, the soils within the project area are classified as low plastic, silty clay soils (ML/CL Soils). The depth to bedrock is 3 m (9 ft) or less**.** Thus, the geotechnical investigation has concluded that the project would not result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. The project area is capable of supporting the proposed improvements.

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?

Based on the soil classification of low-plastic clay soils in the project area, the potential expansion of the soil and rock is expected to be very low to none.

e) *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

This project proposes to add lanes within the median of an existing roadway. There would be no construction related to wastewater disposal systems or that would interfere with existing or future wastewater disposal systems.

VII. HAZARDS AND HAZARDOUS MATERIALS

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The proposed project does not involve routine use of hazardous materials. However, hazardous materials could be encountered on a short-term basis during construction of the project.

A hazardous waste evaluation consisting of an Initial Site Assessment (ISA) included a field inspection and hazardous waste records searches. The ISA concluded that no hazardous waste is expected to be encountered within the project limits. However, three fuel stations in the vicinity are known to have ground and surface water contamination. These areas would require further evaluation during project development if any portion of the parcels were to be impacted, acquired, or used for the project, including any temporary construction easements. The Caltrans ISA recommended avoiding any kind of work adjacent to the three parcels.

The California geologic map shows ultramafic rock, which may contain asbestos-bearing serpentine rock, in the vicinity of the project. However, Caltrans geologists conducted site visits to these areas and from their observations, concluded that asbestos-bearing serpentine rock does not occur in the site vicinity.

In addition to the Hazardous Waste Evaluation, and as part of the Clean Air Act and the National Emission Standards for Hazardous Air Pollutants (NESHAP), an asbestos-containing materials (ACM) investigation was conducted at each bridge location. The laboratory analyses found ACM in the following structures: the Latrobe Road Undercrossing, Clarksville Road Undercrossing, Bass Lake Road Undercrossing and Cameron Park Undercrossing. Removal and proper disposal by a licensed and certified asbestos abatement contractor in conjunction with the planned structure renovation work would be required. No NESHAP notification permit to the local Air Quality Management District would be required because the amounts of asbestos do not exceed this permit's threshold amount.

The potential for hazardous waste may exist in the form of Aerially Deposited Lead (ADL). A preliminary site investigation must be conducted prior to construction to identify if ADL is present and at what levels. If ADL is encountered, the contractor shall prepare and implement a project-specific Lead Compliance Plan to prevent or minimize worker exposure to lead while handling material containing aerially deposited lead.

The yellow traffic stripe in the existing portion of the roadway may contain heavy metals such as lead and chromium, which may exceed hazardous waste thresholds established by the California Code of Regulations (CCR) and may produce toxic fumes when heated. The contractor will be required to comply with Caltrans special provisions for removal of the yellow traffic stripe material and its disposal at a Class 1 disposal facility.

The final project design and construction will be in conformance with all conditions and requirements set forth in the National Pollutant Discharge Elimination System (NPDES) storm water permit adopted by the California Regional Water Quality Control Board, Central Valley Region.

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?

The proposed project would not involve any reasonably foreseeable upset or accident conditions that would include or result in 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?

Two schools, Blue Oak Elementary School and Camerado Springs Middle School, are located within one-quarter mile of the proposed project. See response to Checklist item VII(a), regarding serpentine rock, asbestos-containing materials, heavy metals, and Aerially Deposited Lead.

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?

Three fuel stations in the vicinity are known to have ground and surface water contamination. These areas would require further evaluation during project development if any portion of the parcels were to be impacted, acquired, or used for the project, including any temporary construction easements. The Caltrans ISA recommended avoiding any kind of work adjacent to the three parcels.

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?

The proposed project is not located near a public airport or public use airport.

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?

The proposed project is within two miles of a private airstrip located in Cameron Park. However, the nature of the proposed project (widening of an existing roadway within the median) would not create a safety hazard in relation to the private airstrip.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The proposed project would not impair or interfere with the implementation of any emergency plan. The project would benefit implementation of emergency plans by improving the roadway capacity.

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?

Wildland designated by the County as High Fire Hazard is located adjacent to a portion of the project area. However, construction of the proposed project would not create a risk to people or structures. The existing corridor provides a firebreak and a means of facilitating movement through the area.

VIII. HYDROLOGY AND WATER QUALITY

a) Violate any water quality standards or waste discharge requirements?

The proposed project would not violate or be inconsistent with federal, state, or local water quality standards or waste discharge requirements. The proposed project will comply with Regional Water Quality Control Board (RWQCB) and the Storm Water Pollution Protection Plan (SWPPP) that would be prepared for this project pursuant to Caltrans National Pollution Discharge Elimination System (NPDES) permit.

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)?

The proposed project, which would pave the median area between the northbound and southbound lanes, would not interfere with groundwater recharge because of the minimal area of new paving.

The proposed project is not expected to adversely affect the quality or quantity of surface water, groundwater, or public water supply. The proposed project would not require the use of water

that would deplete groundwater supplies. Standard erosion control practices (i.e., hydro-seeding, applying and incorporating straw, plantings, etc.), in accordance with Caltrans Standard Specifications, Section 20-3, "Erosion Control" will be followed.

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?

The proposed project would not substantially modify the channel of any stream or river. All exposed slopes would require standard erosion control measures to prevent erosion and siltation. See also answers to Checklist items VIII(a) and VIII(b).

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 that would result in flooding on- or off-site?

The proposed project would not alter the channel of any stream or river. While preliminary drainage studies have been performed, Caltrans will conduct more detailed hydraulic studies at the design stage to determine if additional drainage improvements are necessary to prevent 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?

See response to Checklist items VIII(a) and (d).

f) Otherwise substantially degrade water quality?

The project has the potential to impact water quality during construction. Best Management Practices and a Storm Water Pollution Prevention Program will be included in the project plans and specifications. To reduce the potential to adversely affect water quality, the project will implement all practicable mitigation measures, such as:

- Keep disturbed areas as small as possible
- Stabilize and protect disturbed areas from raindrop and runoff energies as soon as practicable
- Keep runoff quantities and velocities low
- Protect disturbed area from runoff from adjacent areas
- Retain sediment within the construction site
- Reduce exposure time of disturbed areas

The proposed project would not otherwise substantially degrade water quality. See responses to Checklist items VIII(a) through (d).

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?

The proposed project does not have a housing component.

h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?

A Floodplain Evaluation, including information obtained from District Flooding Records and from Flood Insurance Rate Maps for Sacramento County, confirmed that the project would not encroach into the 500-year flood plain. There is no history of flooding within the limits of the project. The project alternatives would have no impact upon the base flood elevation; thus, there is little likelihood of surface water overtopping the highway or causing damage to existing property.

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?

No. See response to Checklist item VIII.h.

j) Inundation by seiche, tsunami, or mudflow?

The project is not located in an area where seiche, tsunami, or mudflow would occur.

IX. LAND USE AND PLANNING

b) Physically divide an established community?

The proposed widening within the median of an existing roadway would not physically divide an established community.

b) *Conflict with any applicable land use plan, policy, 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 to avoid or mitigate an environmental effect?*

The proposed project does not conflict with any plan, policy, etc. adopted for the purpose of avoiding or mitigating an environmental effect. In fact, the proposed project is listed in the Metropolitan Transportation Improvement Plan (MTIP) (SACOG 1999). Inclusion of a project or program in an approved MTIP signals its conformance with regional and federal air quality standards and thus its eligibility for federal funding and other resources.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No. See response to Checklist item IV(f) above.

X. MINERAL RESOURCES

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

The proposed widening within the median of the existing roadway would not result in the loss of availability of any known mineral resources. Further, the Division of Mines and Geology Mineral Land Classification Map (1983) for the area indicates the existence of no significant mineral resources along U.S. 50 within the project area.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No. See response to Checklist item X(a).

XI. NOISE. Would the project:

a) Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Long-Term Noise Impacts

A noise study was performed in accordance with Caltrans Traffic Noise Protocol, which incorporates state and federal regulations governing noise levels produced by traffic. The study concluded that there is potential for traffic noise impacts to occur at the developed area just west of Cameron Park Drive (Appendix A, positions 9-13).

Table 14 summarizes the traffic-noise modeling results for future 2025 (design-year) conditions under both build alternatives. Traffic volumes under the HOV Lanes alternative are projected to be slightly less than under the Mixed-Use alternative because of greater carpooling. The difference in predicted noise levels under each alternative is 1 dB or less.

Predicted increases in traffic noise under design-year conditions relative to existing conditions are less than 2 dB. These increases are attributed to predicted increases in traffic volumes and are not considered substantial because they are less than 12 dB. Table 14 indicates that predicted traffic noise levels approach or exceed the Noise Abatement Criteria (NAC) of 67 dBA-L_{eq}(h) for activity category B land uses (Table 9), which include:

- Residences in the subdivision near receiver 9,
- Residences in the subdivision located between Garden Circle and U.S. 50 (receivers 10,11, G, and H),
- Residences in the subdivision located between Country Club Drive and U.S. 50 just west of Cameron Park Drive (receivers A–E and 13), and
- Isolated residences on large lots in the project area.

Because traffic-noise impacts are predicted to occur at activity category B land uses, noise abatement must be considered.

Where traffic noise impacts are identified, noise abatement must be considered for reasonableness and feasibility as required by 23 CFR Section 772 and the Caltrans Traffic Noise Protocol. According to the Protocol, to satisfy feasibility requirements, noise at affected receivers must be reduced by a minimum of 5 dB for the proposed abatement to be considered feasible from an acoustical perspective. Other factors that can also restrict feasibility include topography; access requirements for driveways, ramps, etc.; presence of local cross streets; other noise sources in the area; and safety considerations.

The overall reasonableness of noise abatement is determined by considering a number of factors. These include cost; absolute noise levels; change in noise levels; noise-abatement benefits; date of development along the highway; environmental impacts of abatement construction; opinions of affected residents; input from the public and local agencies; and social, legal, and technological factors.

Noise abatement in the form of soundwalls was not considered reasonable at isolated residences on large lots adjacent to the highway because the maximum reasonableness allowance for a single residence ($30,000 to $35,000) would be insufficient for an acoustically feasible soundwall. However, two potential soundwall locations, identified as SW-1 and SW-2 in Appendix A, have been evaluated at residential subdivision locations on the north side of U.S. 50 in the project area. To assess a reasonable range of soundwall heights, soundwalls with heights of 3.1, 3.7, 4.3, and 4.9 m (10, 12, 14, and 16 ft) were evaluated. Table 15 summarizes the results of the analysis for each soundwall.

Table 14. Summary of Traffic Noise Modeling Results

Receiver	Location	Type of Development	Activity Category Noise Abatement Criterion (dB-L_{eq}[h])	Existing Worst-Noise-Hour Noise Level (dB-L_{eq}[h])	Predicted[a] Worst-Noise-Hour Noise Level (dB-L_{eq}[h])		Noise Increase (dB)		Impact Type[b]	
					Mixed Flow	HOV	Mixed Flow	HOV	Mixed Flow	HOV
8	residential subdivision	residence	B (67 dB)	62	63	63	1	1	none	none
9	residential subdivision	residence	B (67 dB)	68	70	69	2	1	A/E	A/E
10	residential subdivision	residence	B (67 dB)	68	70	69	2	1	A/E	A/E
11	residential subdivision	residence	B (67 dB)	66	67	67	1	1	A/E	A/E
12	residential subdivision	residence	B (67 dB)	61	63	63	2	2	none	none
13	residential subdivision	residence	B (67 dB)	69	71	71	2	2	A/E	A/E
A	residential subdivision	residence	B (67 dB)	65	67	66	2	1	A/E	A/E
B	residential subdivision	residence	B (67 dB)	69	71	70	2	1	A/E	A/E
C	residential subdivision	residence	B (67 dB)	69	71	70	2	1	A/E	A/E
D	residential subdivision	residence	B (67 dB)	69	71	71	2	2	A/E	A/E
E	residential subdivision	residence	B (67 dB)	69	71	70	2	1	A/E	A/E
F	public land	fire station	C (72 dB)	63	64	64	1	1	none	none
G	residential subdivision	residence	B (67 dB)	63	64	64	1	1	none	none
H	residential subdivision	residence	B (67 dB)	69	71	71	2	2	A/E	A/E

[a] Predicted for design year 2025

[b] None = no impacts identified
A/E = noise abatement standard threshold approached or exceeded

Table 15. Summary of Soundwall Feasibility and Reasonableness Allowances

Soundwall	Station	Height (meters [feet])	Provides 5 dB of Noise Reduction?	Number of Benefited Residences	Reasonable Allowance per Residence	Total Reasonable Allowance
SW-1[a]	Sta. 91+00 to 96+48	3.1 (10)	Yes	12	$31,000	$372,000
		3.7 (12)	Yes	12	$35,000	$420,000
		4.3 (14)	Yes	12	$35,000	$420,000
		4.9 (16)	Yes	12	$35,000	$420,000
SW-2[b]	Sta. 98+34 to 104+14	3.1 (10)	Yes	16	$31,000	$469,000
		3.7 (12)	Yes	16	$33,000	$528,000
		4.3 (14)	Yes	16	$33,000	$528,000
		4.9 (16)	Yes	16	$33,000	$528,000

[a] Located at edge of shoulder, north side of U.S. 50.
[b] Located along right-of-way line, connects to existing soundwall at sta. 98+34, north side of U.S. 50.

Each soundwall evaluated has been assessed for feasibility based on noise reduction. For each soundwall found to be feasible under these criteria, reasonable cost allowances were then evaluated. The lengths and heights of the soundwalls under consideration are preliminary and subject to change.

Based on the studies so far accomplished, Caltrans proposes to incorporate noise abatement measures in the form of two barriers: Soundwall #1 would be located at approximately PM 5.45 to PM 5.79 and Soundwall #2 would be located at approximately PM 5.86 and PM 6.23. Soundwalls #1 and #2 would have respective lengths of approximately 548 m (0.34 mi) and 580 m (0.36 mi). Heights would range from 3.1 m to 4.9 m (10 ft to 16 ft). Calculations based on preliminary design data indicate that the barriers would reduce noise levels by 5 dBA for 12 residences at Soundwall #1 at a cost of $31,000-$35,000 per residence, and 16 residences at Soundwall #2 at a cost of $31,000-$33,000 per residence.

If pertinent parameters change substantially during the final project design, the preliminary noise mitigation design may be changed or eliminated from the final project design. A final decision of the construction of the noise mitigation will be made upon completion of the project design and the public involvement process. Affected residences will be kept informed of the design and construction of soundwalls.

Short-Term Noise Impacts

The project would result in temporary noise from construction activities. Caltrans may require that construction work be conducted during nighttime hours to avoid commuter traffic delays. Caltrans Standard Specifications Section 7-I.01I, Sound Control Requirements, require that noise levels generated during construction shall comply with applicable local, state, and federal regulations, and that all equipment shall be fitted with adequate mufflers according to the manufacturers' specifications.

Construction equipment operations can vary from intermittent to fairly continuous, with multiple pieces of equipment operating concurrently. Typical construction equipment generates noise levels ranging from 70 to 90 A-weighted decibels (dBA) at a distance of 50 feet; however, multiple pieces of construction equipment operating concurrently can generate peak construction-period noise levels as high as 94 dBA at a distance of 50 feet from the construction site.

During construction, it is possible that noise levels may occasionally exceed 60 dBA at locations within about one-half mile of the site. Construction activities will be temporary; however, nighttime operations or use of unusually noisy equipment could result in annoyance or sleep disruption for nearby residents.

With the implementation of Caltrans Standard Specifications as discussed above, impacts due to construction-related noise would be less than significant.

b) Expose persons to or generate excessive groundborne vibration or groundborne noise levels?

Construction of the proposed project may require blasting if non-rippable rock is encountered in the Bass Lake truck climbing area. The specific type of blasting, if necessary for this project, has not been determined. The noise level from blasting activities is affected by many variables, including the size of the explosive charge, the number of charges, the shot timing between charges, the depth below the ground of the charges, and the time of day or night when the blast occurs. El Dorado County does not have noise-level criteria for evaluating noise impacts associated with blasting activities; however, blasting activities may disturb nearby residents. To reduce impacts related to blasting, blasting will be performed in accordance with Caltrans Standard Specifications (including Sections 7-1.10 and 19-2.03). The specifications and special provisions developed for blasting will address safety issues and avoidance of damage to existing pavement, utilities, subdrains, structures, and other natural and human-made features. With the implementation of Caltrans Standard Specifications and special provisions, short-term impacts due to construction-related noise would be less than significant.

c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

See response to Checklist item XI(a), above.

d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

See response to Checklist item XI(a), above.

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, expose people residing or working in the project area to excessive noise levels?

The proposed project does not expose people to excessive noise levels.

f) For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels?

See response to Checklist item XI(e).

XII. POPULATION AND HOUSING

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)?

The Cumulative and Growth-Inducing Impact Analysis prepared for this project concluded that the proposed project to add lanes within the existing median would not induce population growth directly. Despite the planned development of the study area, an argument could be made that the proposed project would remove a barrier to build-out of approved developments along the corridor. Such a scenario is speculative, and further, build-out of residential and commercial zoned areas adjacent to the project is controlled by county and city general plans and policies.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

The proposed project, which would be constructed only in the median, would not displace any housing.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

The proposed project, which would be constructed only in the median, would not displace any individuals.

XIII. PUBLIC SERVICES

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

Fire protection? Police protection? Schools? Parks? Other public facilities?

The proposed project could be beneficial for public services by providing additional capacity to the roadway and, thus, improved response time for fire protection, law enforcement, emergency and other public services. The No Build Project Alternative would be expected to have negative impacts on public services, including emergency services response times as the Level of Service for this alternative continues to worsen to LOS F by year 2007. The proposed project would not result in the need for additional public facilities, including schools or parks.

During construction of the project, traffic delays could have a short-term impact on emergency response times. Pre-construction contacts would be conducted with the fire department, law enforcement, and ambulance services. The concerned agencies would be notified of the construction schedule and informed of any planned or potential detours or temporary ramp closures, if needed during construction. A Traffic Management Plan (TMP) would be implemented to minimize impacts to roadway users during construction of the project. One lane in direction of traffic will remain open to public traffic at all times. Two lanes in direction of travel will remain open weekdays from 6:00 am to 8:00 pm. Shoulder closures that do not interfere with public traffic will be allowed during the day, but construction may be restricted during peak commute hours. Temporary safety railing will be placed along the edge of the traveled way to separate construction activities and the traveling public. Caltrans will discuss construction-traffic management with members of the public during the public workshop for this project.

Construction of the proposed project may require blasting of non-rippable rock in the Bass Lake truck climbing area. All lanes would be closed during blasts and allowed to proceed between blasts. Generally, 10-15 minutes delays could be expected during blasting. Caltrans will develop a contingency detour plan for the project so that if blasting operations required a more lengthy road closure, traffic would be rerouted temporarily onto local roads.

The project could have temporary impacts to utilities only during the construction phase of the project. Utility conflicts are possible since soundwall footings are below grade. Procedures outlined in Caltrans' "Manual on High and Low Risk Underground Facilities Within Highway Rights of Way" will be followed. Any utility relocations will be performed in conformance with these procedures. Project engineers will coordinate with utility companies to minimize any interruption of service; the County or utility companies will notify affected properties in advance of any service disruption.

XIV. RECREATION

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The construction of additional lanes to relieve existing congestion on the U.S. 50 corridor would not increase the use of recreational facilities in the area.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

The proposed project does not have a recreational facility component.

XV. TRANSPORTATION/TRAFFIC

a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

The project would not lead to a substantial increase in traffic, since it is intended to manage existing traffic demand as well as future traffic demand caused by planned and approved development in the County. Congestion would be reduced with the project. The number of trips would be less with the project since HOV-lane use would be encouraged.

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

Improved level of service, one of the project goals, would be achieved with the project. The Traffic Operations Study Report showed HOV lanes operating at free-flow speeds for all future years (2002, 2015 and 2025). In contrast, the Mixed Flow Lanes Alternative has congestion for all future years, although the congestion in 2002 is minor (refer to discussion in Section 2.2.5 Comparison of Alternatives for more information).

The Add HOV Lanes alternative would increase the efficiency of the freeway by moving more passengers per vehicle, which can reduce congestion along the corridor. Additionally, HOV lanes encourage the use of transit systems and provide a reliable transit alternative to commuting alone.

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?

No air traffic would be affected by the project.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No. The HOV lanes would be designed according to standard Caltrans guidelines.

e) Result in inadequate emergency access?

There should be no effect to emergency access during off-peak times. With the reduction of congestion, emergency access should improve during peak periods.

f) Result in inadequate parking capacity?

The proposed project would not impact existing parking. It is expected to increase use of existing park-and-ride lots by carpoolers and bus passengers, a goal of the El Dorado County Transportation Commission (Park-and-Ride Facilities Master Plan 1999).

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

The proposed project is consistent with the goals of El Dorado County to increase bus ridership and carpooling (Park-and-Ride Facilities Master Plan 1999; Regional Transportation Plan, reaffirmed 1996).

XVI. UTILITIES AND SERVICE SYSTEMS

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

The proposed project would not have a wastewater treatment component.

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?

The proposed project would not result in the construction or expansion of water or wastewater treatment facilities. See response to Checklist item XII(a) above.

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?

No. Design stage hydraulic studies would determine if additional drainage improvements are necessary. Such drainage improvements would be constructed according to Caltrans Standard Specifications and its NPDES permit.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The proposed project would not require the use of any water, except during construction when a minor amount of water would be used to minimize dust impacts.

e) Result in a determination by the wastewater treatment provider that 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?

See response to Checklist item XVI(a).

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

The project would not generate solid waste; project construction would not result in any excess waste that would require use of a solid waste disposal facility, except for asbestos-containing materials at bridge locations, possible heavy metals in the yellow traffic stripe, and aerially deposited lead in earthwork material. Removal and proper disposal by a licensed and certified asbestos abatement contractor in conjunction with the planned structure renovation work (at overcrossings) would be required. See response to Checklist item VII(a).

g) *Comply with federal, state, and local statutes and regulations related to solid waste?*

See response to Checklist items XII(a) and XVI(f).

XVII. MANDATORY FINDINGS OF SIGNIFICANCE –

a) *Does the project have the potential to 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, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

No. The proposed project would not degrade the quality of the environment. Overall, the project is expected to improve air quality locally and to have an incremental effect in improving regional air quality. Mitigation measures have been incorporated into the project design to minimize impacts.

b) *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

No. The "Cumulative and Growth-Inducing Impacts Analysis" prepared for this project concluded that the incremental effects of the proposed project would not be considered cumulatively considerable. The land adjacent to the project area is zoned for residential and commercial use. Despite the planned development of the study area, an argument could be made that the proposed project would remove a barrier to build-out of approved developments along the corridor. Planned development in the project area can proceed, even if the proposed HOV Lanes or Mixed-Use Lanes alternative is not implemented, since final map approval is a ministerial action if the conditions of the tentative map are met. Thus, the proposed project would not foster the vast majority of economic or population growth in the project area. Further, build-out of residential and commercial zoned areas adjacent to the project would be consistent with County goals.

Due to enactment of Measure Y, implementation of the proposed project could remove an obstacle to some planned development. Measure Y added a new policy to the El Dorado County General Plan stating that traffic from residential development projects of five or more parcels of land must not result in LOS F or worse traffic congestion during weekday, peak-hour periods on any highway, road, interchange or intersection in the unincorporated areas of the county. Because the proposed project would lessen congestion on U.S. 50, some planned developments in the project area would be in compliance as long as they also incorporated additional mitigation measures to mitigate traffic impacts on local arterials.

The County of El Dorado has implemented traffic impact fees to mitigate the cumulative impacts of development adjacent to the highway on U.S. 50; the intent of this fee is to help fund projects such as this one.

The HOV lanes alternative would increase the efficiency of the freeway by moving more passengers per vehicle, which can reduce congestion along the corridor and reduce vehicle pollutant emissions.

The project's incremental contribution to 2015/2025 cumulative noise levels is less than significant under CEQA; the difference in noise levels in 2015 with and without project conditions, and in 2025 with and without project conditions, would be imperceptible. However, the overall cumulative 2015/2025 noise impacts are predicted to approach or exceed FHWA noise abatement criteria, but 2015 and 2025 noise impacts are mitigated to below FHWA standards.

The proposed project could contribute to short-term cumulative air quality impacts during its construction. Foreseeable future development and transportation improvement projects in the project vicinity, if constructed concurrently, would result in an increase in exhaust, dust, and other miscellaneous short-term emissions associated with construction activity. However, this project's incremental contribution to cumulative short-term emissions would be minimal since the contractor would be required to comply with Caltrans Standard Specifications noted herein.

The proposed project would have no impact or a less-than-significant impact on biological, water quality, cultural, or visual resources with the implementation of best management practices and mitigation measures included herein. Therefore, there is little to no cumulative contribution by the project to these topical areas.

c) *Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?*

No. The responses to the previous checklist questions provide sufficient evidence that the proposed project would not cause adverse effects to human beings.

7.0 DETERMINATION

On the basis of this initial evaluation, the appropriate environmental document for the proposed project is a Negative Declaration/Finding of No Significant Impact.

Cher Daniels, Chief
Caltrans North Region
Office of Environmental Management (S-1)

Date

Keith Rhodes, Chief
Caltrans North Region
Project Manager

Date

8.0 CONSULTATION AND COORDINATION

Coordination and consultation have been conducted with a number of other entities, including the following:

Biology

Caltrans biologist Jennifer Gillies conducted a jurisdictional wetland delineation in November 1999 that was verified by the U.S. Army Corps of Engineers (ACOE) July 11, 2000. Caltrans has also conferred with CDFG, who has determined that construction activities in the drainages would not require a streambed alteration agreement. Currently, Caltrans and FHWA are consulting with USFWS on the elderberry shrubs within the project area.

Cultural Resources

As part of the cultural resources investigation, Caltrans coordinated with the following parties:

- State Historic Preservation Officer
- Native American Heritage Commission
- Native American representatives
- El Dorado County Pioneer Cemeteries Commission
- El Dorado County Historical Museum
- El Dorado County Historical Society
- El Dorado County Planning Department

Public Workshop

A public workshop will be held during circulation of the public review draft Initial Study/Environmental Assessment.

9.0 SUMMARY OF MITIGATION MEASURES, STANDARD PRACTICES, PERMITS AND OTHER NECESSARY COORDINATION

The following section details mitigation measures and standard practices that will be implemented to reduce the identified project impacts. Implementation of these measures and standard practices will result in the project having no significant adverse impacts to the human and natural environment.

Visual Quality

- Visual enhancements and grafitti prevention, such as landscaping, will be incorporated into soundwall design.

Air Quality

- Caltrans Standard Specifications (Section 7-1.01F, Air Pollution Control and Section 10.1, Dust Control), a required part of all construction contracts, require the contractor to comply with El Dorado County Air Pollution Control District and other local jurisdiction rules, regulations, ordinances, and statutes.

Biological Resources

- Construction of a soundwall may require removing one elderberry shrub. Caltrans and FHWA have initiated formal consultation pursuant to Section 7 of the Endangered Species Act as amended (1973) with USFWS to address the potential effects and required conservation measures. The Section 7 consultation also considers the elderberry shrubs along the shoulder of the highway. Mitigation measures in the USFWS BO could include: 1) transplanting the affected elderberry plant to a USFWS-approved compensation area and 2) planting additional elderberry seedlings or cuttings and associated native species at a USFWS-approved compensation area, or purchasing credits in a USFWS-approved mitigation bank.

- For all other elderberry shrubs in the project area, an ESA will be designated on project plans with a 6.09 m (20 ft) setback or to the paved shoulder, whichever is further. The contractor will be instructed to avoid these areas.

- Pursuant to CDFG's Oak Protection Guidelines, Caltrans will plant acorns or oak seedlings at a replacement ratio of 5:1 for oak trees > 2 inches dbh impacted and 1:1 for oak trees < 2 inches dbh. Per CDFG guidelines, Caltrans will maintain the oak plantings for a period of five years and Caltrans will complete a five-year Maintenance and Monitoring Plan. A minimum of 80 percent success rate (survival rate) at the end of the five-year monitoring period is recommended. Any trees planted, as remedial action for failure of initial planting, will be monitored by Caltrans for five years in a similar fashion to the initial planting.

- The project would impact approximately 0.01 ha (0.03 ac) of perennial wetland and 0.05 ha (0.13 ac) of seasonal wetland where soundwalls would be constructed. Caltrans will mitigate these wetland impacts at its Beach Lake Mitigation Bank if soundwalls are constructed.

- Cliff Swallow nests at Clarksville Road Undercrossing and Bass Lake Road Undercrossing will need to be removed prior to construction. The nests will be removed outside of the nesting season, prior to March 1 and after September 15, and continually removed during the nesting season to prevent nesting.

Cultural Resources

It is Caltrans policy to avoid cultural resources whenever possible. The following mitigation measures shall be implemented for this project:

- At certain culturally sensitive areas adjacent to the project area, all construction and related activities will take place within the highway median only. No parking, staging, or construction will occur outside the median area in this location. These instructions will be added to the Resident Engineer's Pending File and included on the contractor's plan and profiles.

- If previously undetected subsurface materials (e.g., bones, artifacts including arrowheads, bottles, etc.) are encountered during project construction, it is Caltrans policy (Environmental Handbook, Volume 2, Chapter 7) that work temporarily cease in the area of the find and that the contractor contact the Caltrans District Environmental Branch immediately. A qualified archaeologist will assess the significance of the finds and determine an appropriate course of action in consultation with the State Historic Preservation Officer.

- Should project plans change to include any unsurveyed property, additional investigation will be necessary.

- If human remains are unearthed during construction, State Health and Safety Code Section 76050.5 states that no further disturbance shall occur until the county Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. The District 3 Environmental Planning Branch shall be notified immediately (Environmental Handbook Section 1-2.2 and 7-8).

Water Quality

- The contractor will be required to comply with water pollution protection provisions of Section 7-1.01G of Caltrans Standard Specifications and the NPDES permit for Caltrans, as well as Section 20-3, "Erosion Control" of Caltrans Standard Specifications. As part of the NPDES permit, Caltrans will develop and implement a Storm Water Pollution Prevention Plan (SWPP) for the project. These practices will provide adequate protection of water resources and associated habitats.

Hazardous Materials

- Removal and proper disposal of asbestos-containing materials from structures will be performed by a licensed and certified asbestos abatement contractor in conjunction with the planned structure renovation work.

- A preliminary site investigation will be conducted prior to construction to identify levels of aerially deposited lead (ADL). If ADL is encountered, earthwork involving materials containing ADL shall conform to the provisions in Section 19, "Earthwork," of Caltrans Standard Specifications and of Special Provisions for "Aerially Deposited Lead." Caltrans

will require the contractor to prepare and implement a project-specific Lead Compliance Plan to prevent or minimize worker exposure to ADL while handling material containing ADL. The Lead Compliance Plan will be prepared in compliance with Title 8, California Code of Regulations, Section 1532.1 "Lead." The Plan will include monitoring, and average ADL concentrations shall not exceed 1.5 microgram per cubic meter of air per day. If concentrations exceed this level, the contractor shall stop work and modify the work to prevent release of ADL. The Plan will also include safety training for construction personnel. Excavation, reuse, and disposal of material with ADL shall be in conformance with all rules and regulations of responsible state and federal agencies.

- The contractor will be required to comply with Caltrans standard special provisions for removal of the existing yellow traffic stripe material in the project area and its disposal at a Class 1 disposal facility.

- The final project design and construction will be in conformance with all conditions and requirements set forth in the National Pollutant Discharge Elimination System (NPDES) storm water permit adopted by the California Regional Water Quality Control Board, Central Valley Region for Caltrans projects.

Noise

- Two soundwalls (SW-1 and SW-2 in Appendix A) are recommended to reduce projected noise levels as a result of the project. Soundwall #1 would be located at approximately PM 5.45 to PM 5.79 and Soundwall #2 would be located at approximately PM 5.86 and PM 6.23. Soundwalls #1 and #2 would have respective lengths of approximately 548 m (0.34 mi) and 580 m (0.36 mi). Heights would range from 3.1 m to 4.9 m (10 ft to 16 ft). Calculations based on preliminary design data indicate that the barriers would reduce noise levels by 5 dBA for 12 residences at Soundwall #1 at a cost of $31,000-$35,000 per residence, and 16 residences at Soundwall #2 at a cost of $31,000-$33,000 per residence.

- Temporary construction noise from contractor equipment and construction activities would be regulated by Caltrans Standard Specifications, Section 7-1.01I, Sound Control Requirements. This section requires the contractor to comply with all local sound control and noise level rules, regulations, and ordinances that apply to any work performed pursuant to the contract. Each internal combustion engine used for any purpose on the job or related to the job shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without the muffler.

- If blasting is required, blasting will be performed in accordance with Caltrans Standard Specifications (including Sections 7-1.10 and 19-2.03). The specifications and special provisions developed for blasting will address safety issues and avoidance of damage to existing pavement, utilities, subdrains, structures, and other natural and human-made features.

Public Services and Utilities

- Caltrans will coordinate with utility companies affected by project construction.

- Utility and service companies will notify affected properties in advance of any service disruption.

- Caltrans will notify fire, law enforcement, and ambulance services of the construction schedule and will keep them informed of any planned or potential detours.

Construction Traffic

- Caltrans will prepare a Transportation Management Plan that will be implemented by the contractor.

- Caltrans will prepare a contingency detour plan in the event that blasting operations require traffic to be rerouted temporarily onto local roads.

Permits Required

Unless otherwise noted above, the Office of Environmental Management (Sacramento) will obtain the following permits:

- National Pollution Discharge Elimination System (NPDES) General Construction Permit from State Water Resources Control Board.

- Section 404, Water Quality Act from U.S. Army Corps of Engineers.

- Section 401, Water Quality Act from Regional Water Quality Control Board.

10.0 LIST OF PREPARERS

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James N. Lee, Transportation Engineer, BSc. (Hon.), University of Westminster, London; MPhil, University of Westminster, London; PhD, Civil Engineering, University of Texas at Austin, PE (Texas); seventeen years in pavement and geotechnical engineering and research in Caltrans and the private sector.

Nancy MacKenzie, Associate Environmental Planner/Project Environmental Coordinator, Masters candidate, Anthropology, California State University, Sacramento; B.A. English Literature, minor Archaeology, Austin College, Texas; 10 years experience in environmental analysis and coordination; three years experience preparing community impact assessments.

David Stanek, Transportation Engineer. B.S. Civil Engineering, M.S. Civil Engineering, University of California, Davis. Four years experience in traffic operations analysis and design.

11.0 BIBLIOGRAPHY

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1999 Metropolitan Transportation Plan covering Sacramento, Yolo, Sutter, Yuba, Placer and El Dorado Counties, adopted July 15, 1999.

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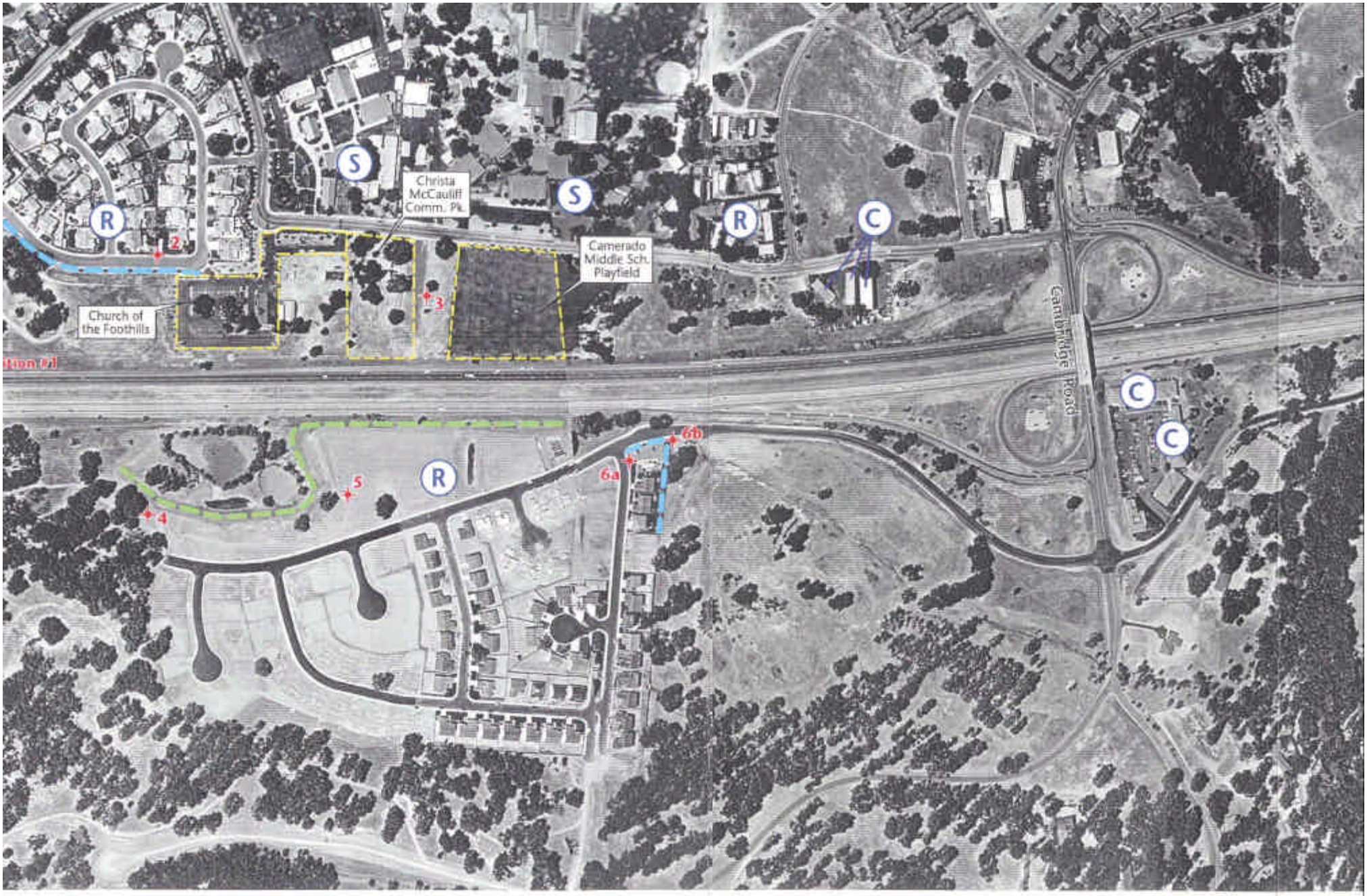
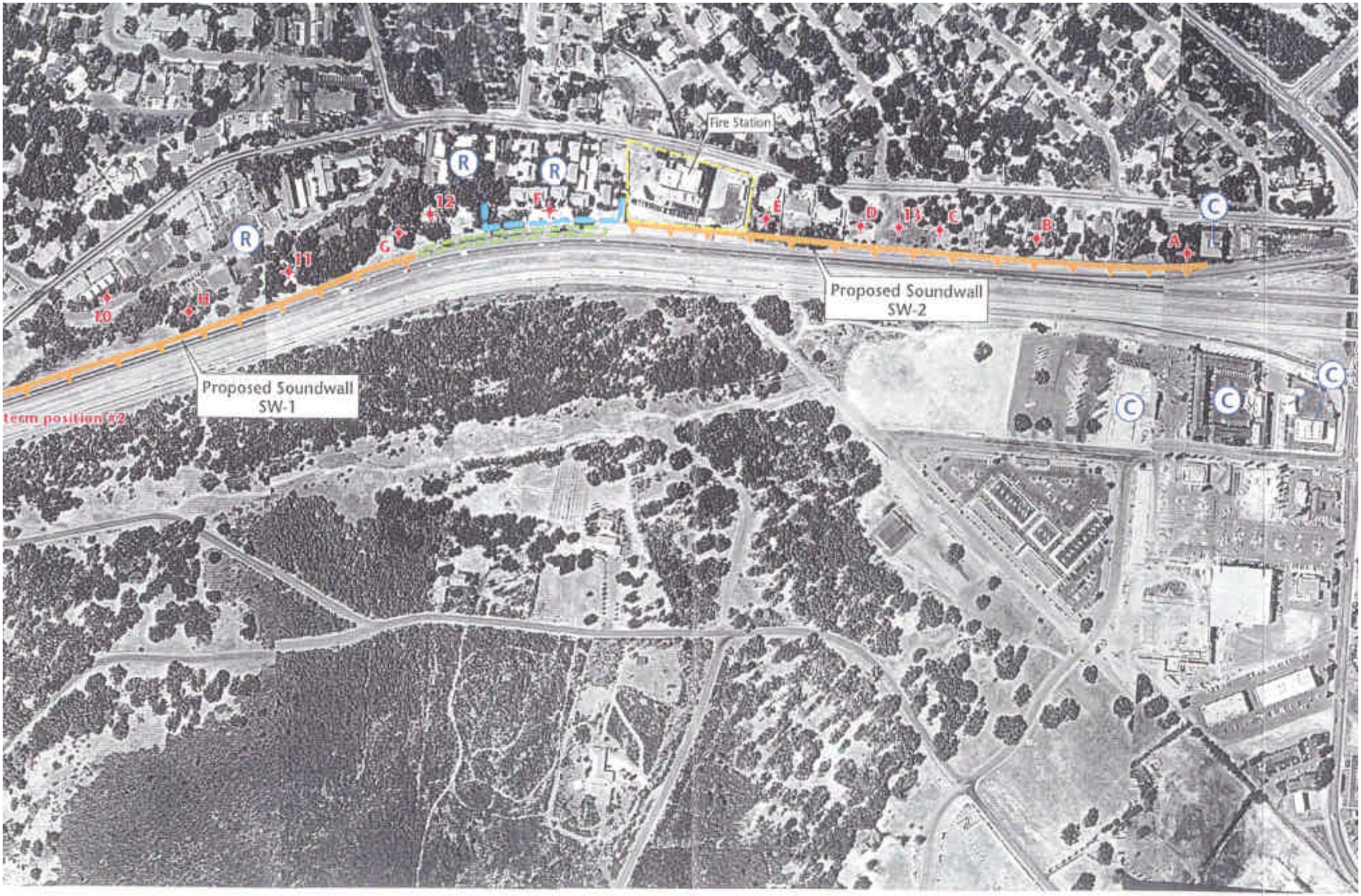
Personal Communications:
Molly Penberth, California Department of Conservation, Land Conservation Unit, October 21, 1999.
Roger Trout, El Dorado County Planning Department, October, 1999.

APPENDIX A

Noise Monitoring and Modeling Positions and Proposed Soundwall Locations


Christa McCauliff Comm. Pk.
Camerado Middle Sch. Playfield
Church of the Foothills
Cambridge Road
S
S
R
C
R
C
C
R
2
3
4
5
6a
6b
Existing soundwall
Existing berm
Existing hill
Proposed soundwall
Noise monitoring location
Noise modeling location
Specific use area
Commercial use area
Residential subdivision or complex
School


Fire Station
Proposed Soundwall SW-1
Proposed Soundwall SW-2
Existing soundwall
Existing berm
Existing hill
Proposed soundwall
Noise monitoring location
Noise modeling location
Specific use area
Commercial use area
Residential subdivision or complex
School

APPENDIX B

Concurrence Letters
From Office of Historic Preservation

STATE OF CALIFORNIA – THE RESOURCES AGENCY GRAY DAVIS, Governor

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
SACRAMENTO, CA 94296-0001
(916) 653-8624 Fax: (916) 653-9824
calshpo@ohp.parks.ca.gov

February 6, 2001

Reply To: FHWA001204A

Mr. Michael G. Ritchie
Division Administrator
Federal Highway Administration
980 Ninth Street, Suite 400
Sacramento, CA 95814-2724

Project: **03-ED-US.50, 0.9/8.6; P33913; Proposed U.S. Highway 50 Median Widening, El Dorado Hills, El Dorado County, California**

Dear Mr. Ritchie:

The purpose of this letter is to correct several errors that inadvertently appeared in my December 28, 2000 letter to you regarding the above-cited undertaking. This present letter is intended to supercede and replace that previous letter.

In accordance with 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act, the Federal Highway Administration (FHWA) has made findings of National Register eligibility and effect for properties located within the Area of Potential Effects (APE) of the undertaking cited above. You have asked for my comments on these findings.

UNDERTAKING APE AND IDENTIFYING HISTORIC PROPERTIES
FHWA's delineation of the undertaking's APE and its efforts to identify historic properties within this APE are satisfactory.

PUBLIC PARTICIPATION
FHWA's efforts to involve Native Americans and other members of the interested public in the consultation process for the undertaking are satisfactory.

DETERMINATIONS OF NATIONAL REGISTER ELIGIBILITY
P-9—945: In a letter dated March 18, 1999 I agreed that this isolated rock fence segment was ineligible for inclusion in the National Register of Historic Places (NRHP) due to a lack of integrity.

P-9—946: In a letter dated March 18, 1999 I agreed that this segment of 1940 U.S. Highway 50 (State Route 11) was ineligible for inclusion in the NRHP due to a lack of integrity.

I agree that the bridge structures included in the following list, designated Category 5 in the Caltrans Local Bridge Survey (1988), are all NRHP-ineligible because they are all less than 50 years old:

Latrobe Road Undercrossing (#25-0071L/R/S – built 1965)
Clarksville Road Undercrossing (#25-0072L/R – built 1965)
Bass Lake Road Undercrossing (#25-0073L/R – built 1966)
Shingle Springs Overcrossing (#25-0074 – built 1969)
Cambridge Road Overcrossing (#25-0083 – built 1970)
Carson Creek Bridge (#25-0079 – widened 1965)
Cameron Park Undercrossing (#25-0084L/R – built 1970)

Segments A & B of CA-ELD-856 H: I agree that both segments A & B are ineligible for inclusion in the NRHP because of severe loss of historic integrity.

I agree that the properties included in the following list of buildings, all located in Cameron Park, El Dorado County, qualify for treatment under the December 20, 1989 "Memorandum of Understanding Regarding Evaluation of Post-1945 Buildings, Moved Pre-1945 Buildings and Altered Pre-1945 Buildings," updated by Interim Agreement to Post-1950:

3076-78-80-84 Garden Circle	Post-1950 fourplex residence
3088 Garden Circle	Post-1950 triplex residence
3094-96 Garden Circle	Post-1950 duplex residence
3102 Garden Circle	Post-1950 duplex residence
3114 Garden Circle	Post-1950 apartments
3122 Garden Circle	Post-1950 duplex residence
3128 Garden Circle	Post-1950 single-family residence
3132 Garden Circle	Post-1950 single-family residence
3180 Country Club Drive	Country View Villas, post-1950 apartments
3192 Country Club Drive	Post-1950 single-family residence, used as day-care center
3200-02-04 Country Club Drive	Cameron Park Community Services District, post-1950 government facility
3232 Country Club Drive	Post-1950 single-family residence
3240 Country Club Drive	Post-1950 single-family residence
3250 Country Club Drive	Post-1950 single-family residence
3254 Country Club Drive	Post-1950 single-family residence
3278 Country Club Drive	Post-1950 single-family residence
3286 Country Club Drive	Post-1950 single-family residence
3300 Country Club Drive	Post-1950 single-family residence
3306 Country Club Drive	Post-1950 single-family residence
3314 Country Club Drive	Post-1950 single-family residence
3328 Country Club Drive	Lady Bird Care Home, post-1950 commercial
3350 Country Club Drive	Country Club Professional Building, post-1950 offices
Country Club Drive	Inter-County Title Co., post-1950 offices

PROPERTIES IDENTIFIED BUT NOT EVALUATED

CA-ELD-585 H is multi-component site (CA-ELD-585H) that includes a historic family cemetery (the Railroad Cemetery, or Tong Family Cemetery), a tailings pile and mine shaft, a ditch segment, a rock structure, and a bedrock mortar station. The current project survey identified only the tailings pile within the project Area of Potential Effects (APE) and, as stated in the HPSR, the remainder of the site features are situated outside but adjacent to the APE.

As explained in the HPSR, CA-ELD-585 H was not evaluated because it is not within the project's area of direct impact (ADI) and the portion of the site that occurs within the APE and the established right of way (the tailings pile) is situated approximately 7 to 12 meters below the top surface of the traveled way and shoulder of US Highway 50. Along this portion of the project, all construction activities will occur only within the median, and the southern extent of the right of way (within which CA-ELD-585 H is located) will not be utilized since it is so far below the fill grade.

FINDING OF EFFECT

Having considered the foregoing recommendations I find that they are sufficient to warrant my concurrence in your finding that implementation of the undertaking, as presently designed, will have no adverse effect on historic properties. My concurrence in that determination is contingent upon your agreement to impose these protective measures as conditions on the undertaking [36 CFR § 800.5(b)]. Please indicate your agreement by executing the signature block below. My receipt of a copy of this letter bearing your signature will constitute satisfactory evidence of Section 106 compliance by the FHWA for this undertaking.

Your consideration of historic properties in the project planning process is appreciated. If you have any questions, please contact staff archaeologist Charles Whatford at (916) 653 – 2716 or cwhat@ohp.parks.ca.gov

Sincerely,

"Original Signed by"

Dr. Knox Mellon
State Historic Preservation Officer

R Rafat Ghazzaly Date: 11/28/01

Michael G. Ritchie, Division Administrator, FHWA

STATE OF CALIFORNIA – THE RESOURCES AGENCY GRAY DAVIS, Governor

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
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December 28, 2000

Reply To: FHWA001204A

Mr. Michael G. Ritchie
Division Administrator
Federal Highway Administration
980 Ninth Street, Suite 400
Sacramento, CA 95814-2724

Project: **03-ED-US.50, 0.9/8.6; P33913; Proposed U.S. Highway 50 Median Widening, El Dorado Hills, El Dorado County, California**

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3328 Country Club Drive	Lady Bird Care Home, post-1950 commercial
3350 Country Club Drive	Country Club Professional Building, post-1950 offices
Country Club Drive	Inter-County Title Co., post-1950 offices

FHWA001204A

FHWA's efforts to identify historic properties within the project's APE conform to applicable standards and the documentation provided is consistent with the requirements of § 800.11(d) for a finding of "no historic properties affected." Therefore, pursuant to § 800.4(d)(1), because I do not object to this adequately documented finding, your responsibilities under Section 106 are now fulfilled.

Your consideration of historic properties in the project planning process is appreciated. If you have any questions, please contact staff archaeologist Charles Whatford at (916) 653 – 2716 or cwhat@ohp.parks.ca.gov

Sincerely,

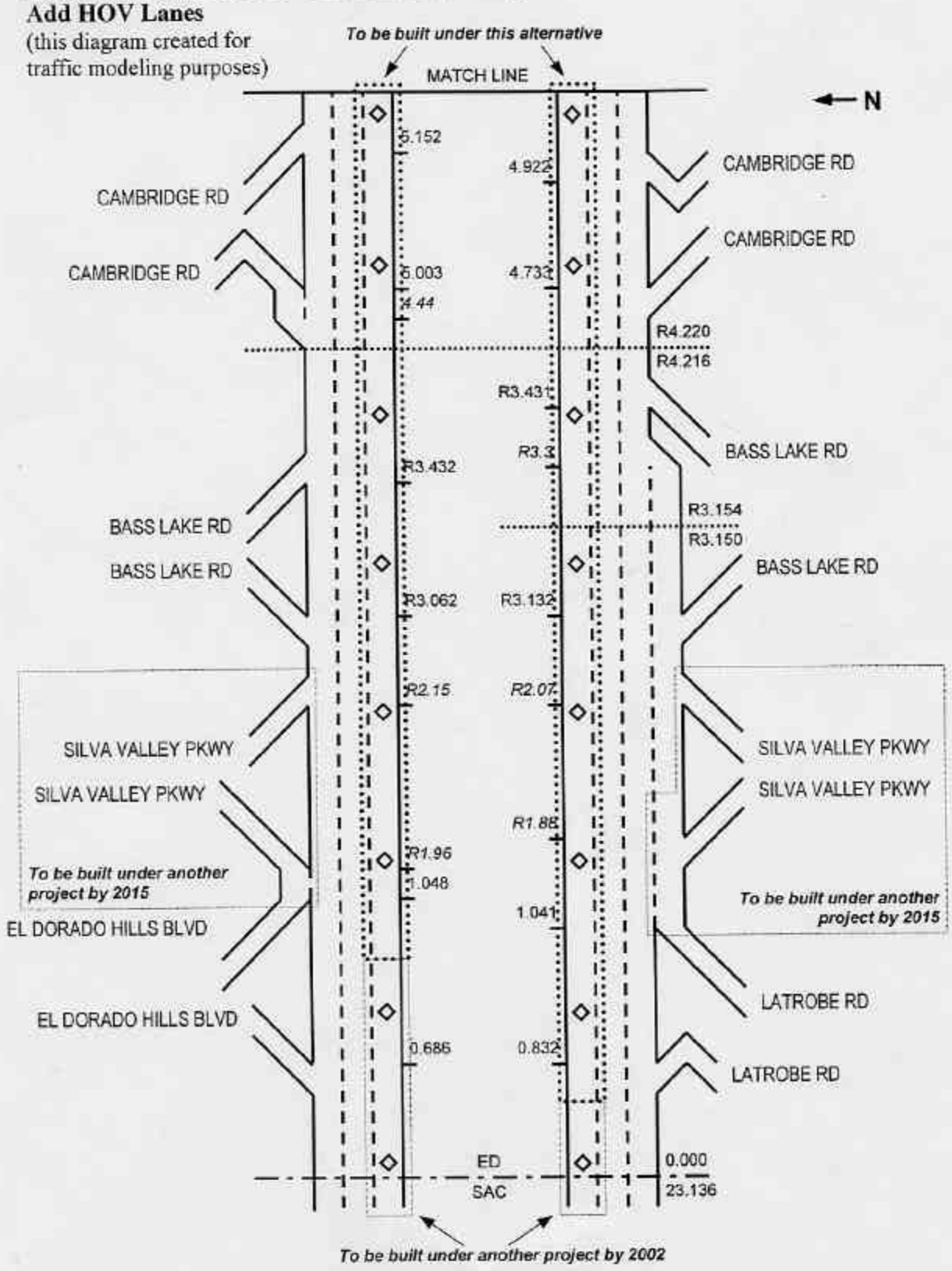
Dr. Knox Mellon
State Historic Preservation Officer

APPENDIX C

Lane Configuration Diagrams
(Post Mile Locations)

LANE CONFIGURATION DIAGRAMS

Figure 3a (converted from kilometers to miles)
Add HOV Lanes
(this diagram created for traffic modeling purposes)

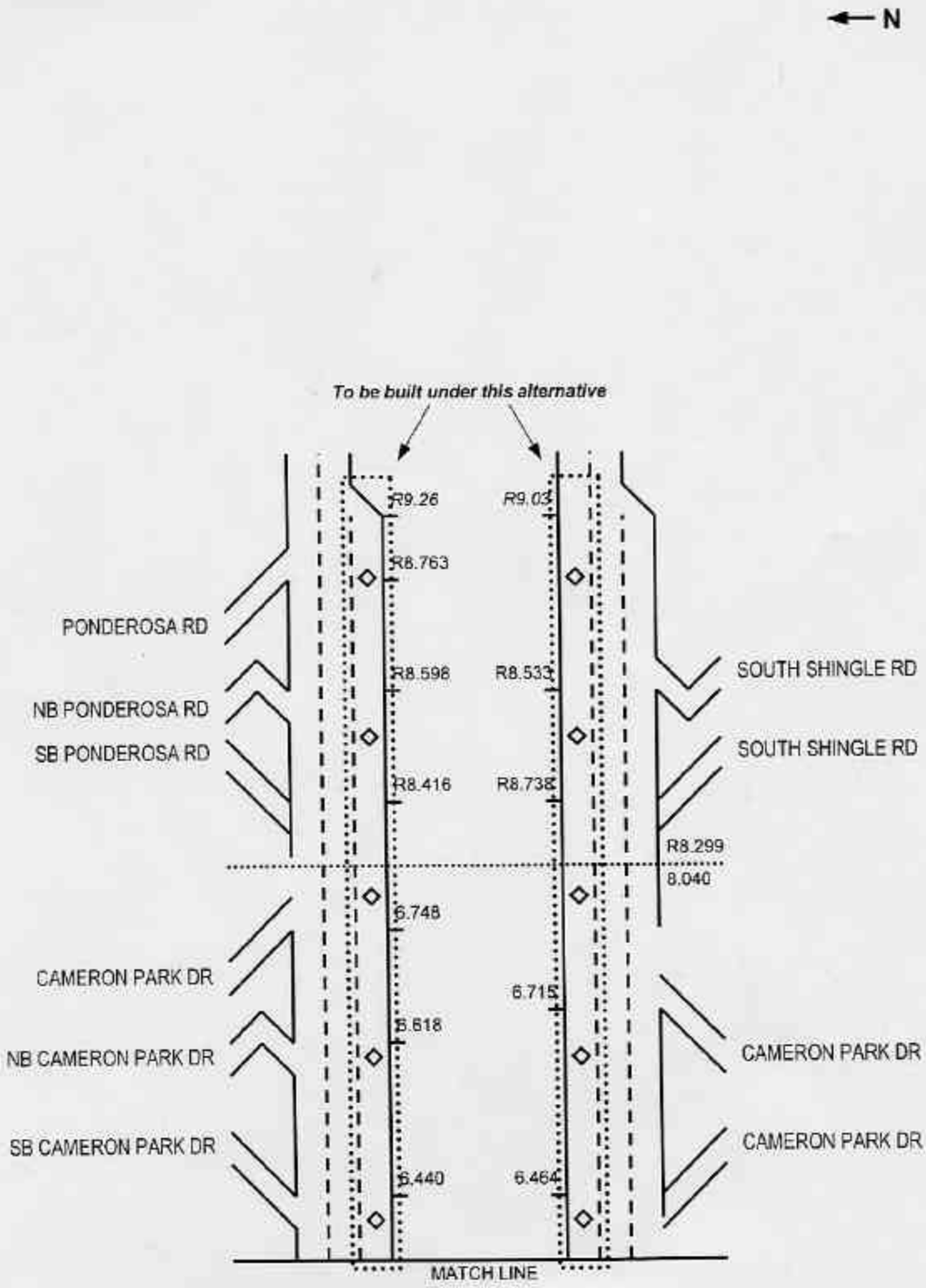


Not to scale. Numbers are Post Mile (PM), or distance in miles from the Sacramento/El Dorado County line
Italics denote estimated post miles.

December 2001

LANE CONFIGURATION DIAGRAMS

Figure 3b
Add HOV Lanes (converted from kilometers to miles), continued
(this diagram created for
traffic modeling purposes)



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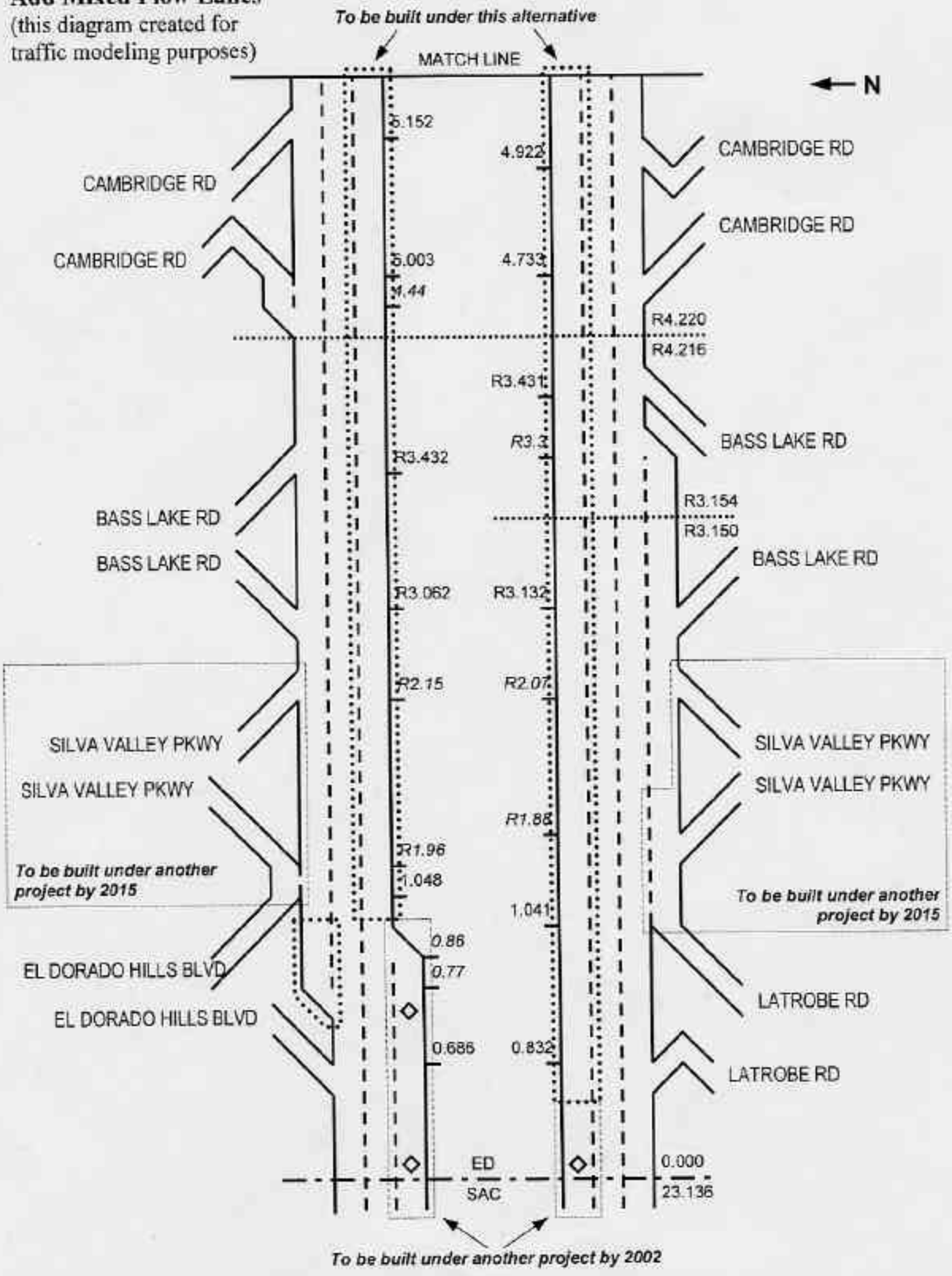
December 2001

LANE CONFIGURATION DIAGRAMS

Figure 4a (converted from kilometers to miles)
Add Mixed Flow Lanes
(this diagram created for traffic modeling purposes)



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December 2001

LANE CONFIGURATION DIAGRAMS

Figure 4b (converted from kilometers to miles), continued
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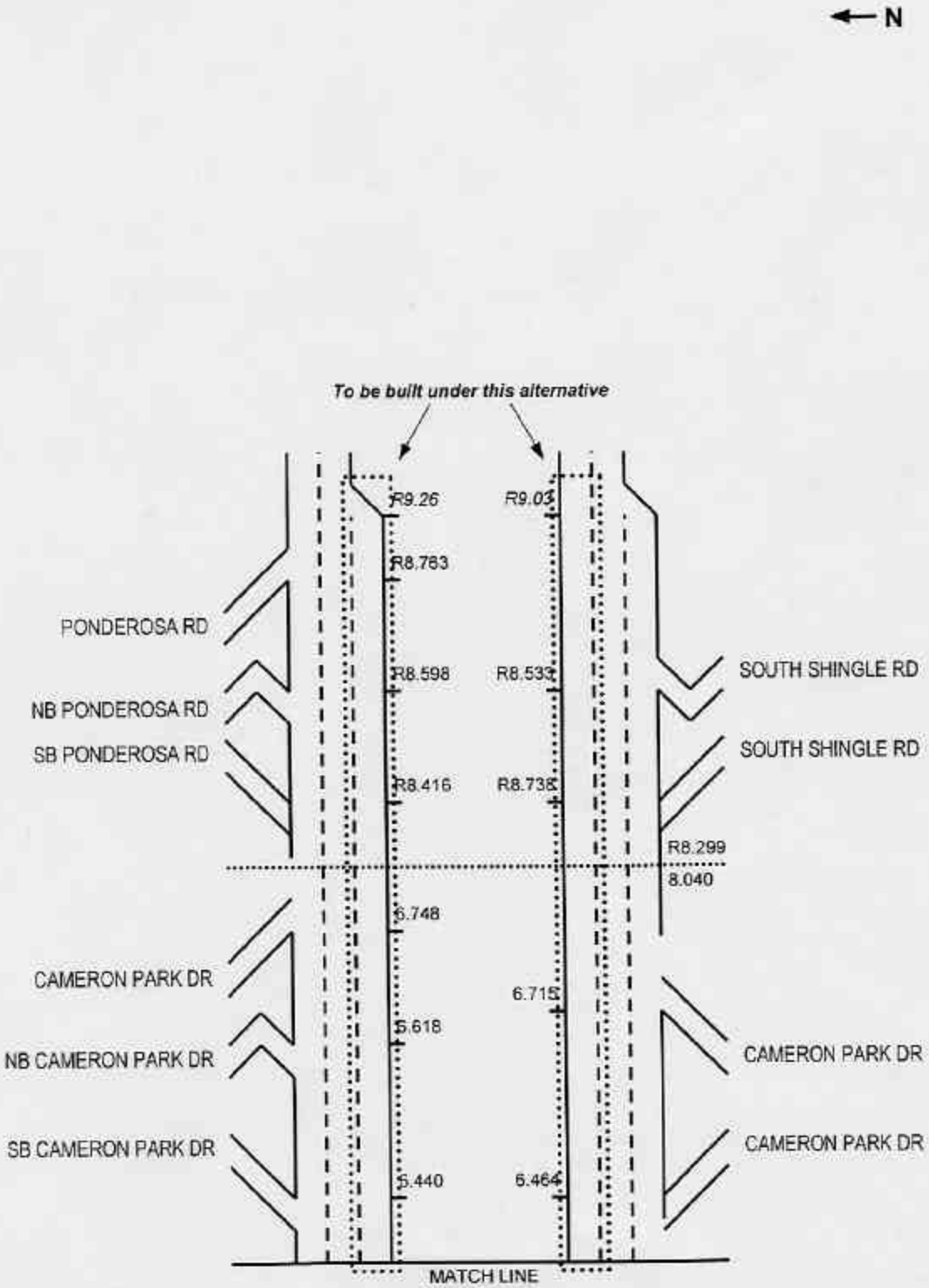

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Italics denote estimated post miles.

December 2001