

# Dorsey Drive Interchange Improvement

## Initial Study

State Route 20  
Nevada County

03-NEV-20-KP R21.9/R23.8 (PM R13.6/R14.8)  
EA 03- 412400

Prepared by the  
State of California

Department of Transportation



March 2006



Nevada County  
Transportation Commission



# General Information About This Document

## *What's in this document?*

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

## *What should you do?*

Please read this Initial Study. Additional copies of this document as well as the technical studies are available for review at:

Caltrans District 3 Marysville Office  
703 B Street  
Marysville, CA 95501

Grass Valley City Hall  
125 E. Main Street  
Grass Valley, CA 95959

Grass Valley Library  
207 Mill Street  
Grass Valley, CA 95945

Nevada City Library  
980 Helling Way  
Nevada City 95959

We welcome your comments. If you have any concerns regarding the proposed project, please attend the public information meeting on Thursday March 21, 2006 from 4:00 to 7:00 p.m. at the Grass Valley Veterans Building, 255 S. Auburn Street, Grass Valley, CA 95959, or send your written comments to Caltrans by the deadline provided below. Submit comments via U.S. mail at the following address:

Japtej Gill, Environmental Chief  
Branch S-4  
California Department of Transportation  
2389 Gateway Oaks, Suite 100, MS 15  
Sacramento, CA 95833

Submit comments via email to: [japtej\\_gill@dot.ca.gov](mailto:japtej_gill@dot.ca.gov).

- Submit comments by the deadline: 4/3/06.

## *What happens next?*

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

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Gregoria Ponce Garcia, Office of Environmental Management S-174, 2389 Gateway Oaks, Sacramento, CA 95833; 916.274.0565 Voice, or use the California Relay Service TTY number, 1.800.735.2929.

3CH 2006032006

03-NEV-20-KP R21.9/R23.8  
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State Route 20 in Nevada County

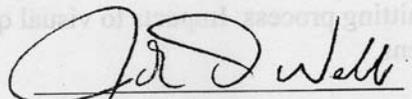
KP R21.9/R23.8 (PM R13.6/R14.8)

INITIAL STUDY

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

THE STATE OF CALIFORNIA  
Department of Transportation

1 March 2006  
Date of Approval

  
John D. Webb, Chief,  
North Region Environmental Services  
California Department of Transportation

## Summary

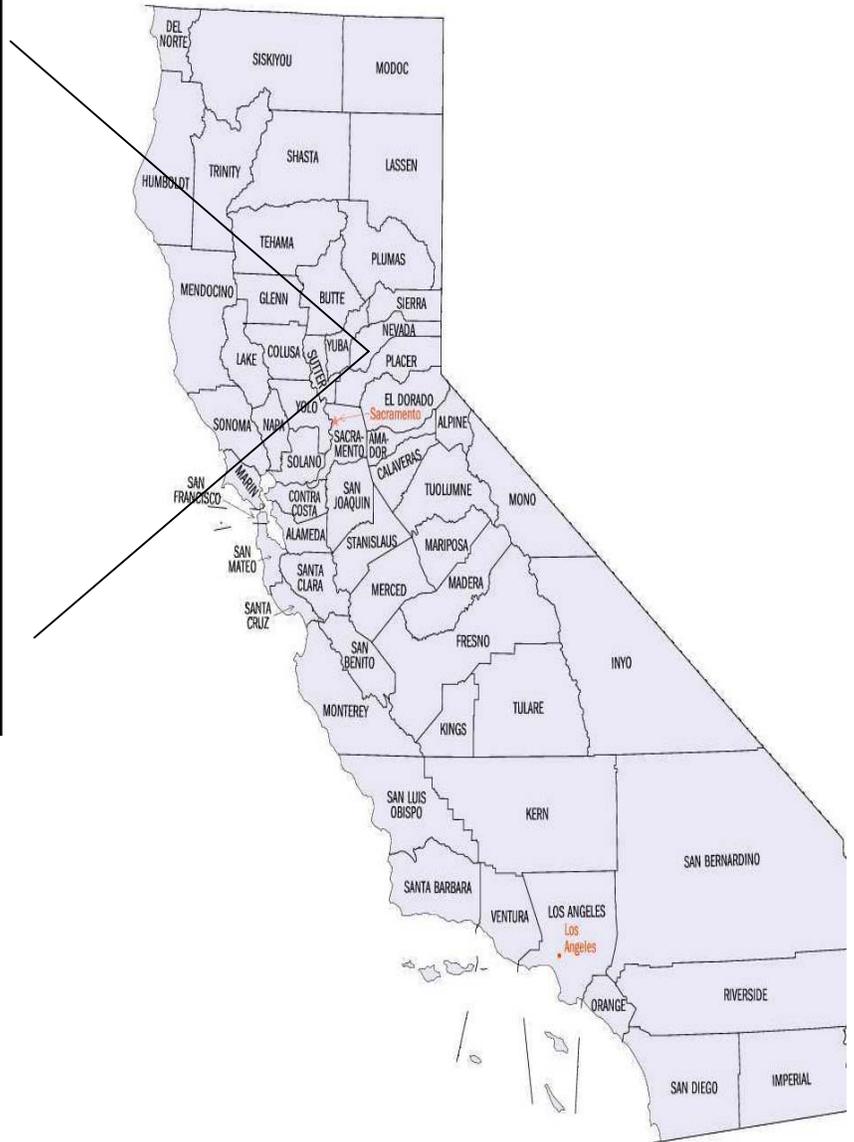
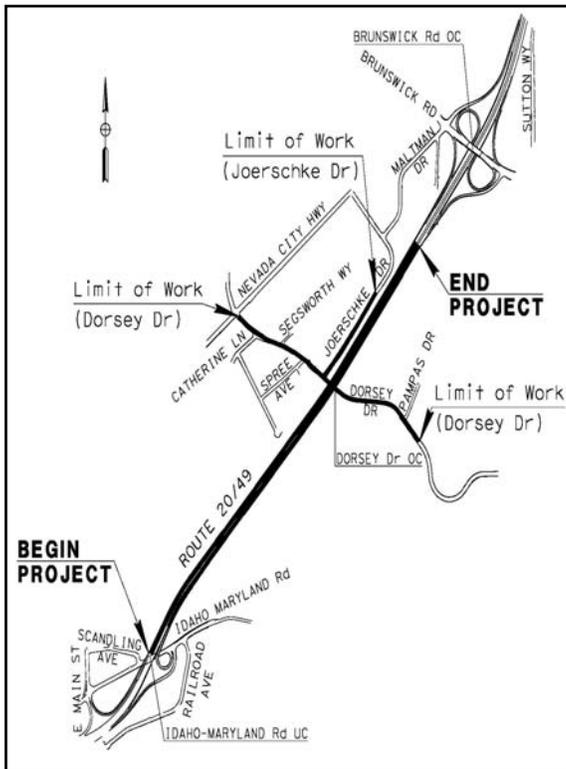
The California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA), in cooperation with the Nevada County Transportation Commission (NCTC), and the City of Grass Valley propose to convert Dorsey Drive Overcrossing (OC) to an interchange and connect it with State Route (SR) 20/49 to improve access to specific high-use sites, relieve operations at adjacent interchanges and provide additional capacity on Dorsey Drive for future planned development in accordance with adopted City and County general plans.

Improvements include modifying or replacing the existing overcrossing with a wider structure; constructing northbound and southbound auxiliary lanes, soundwalls, and retaining walls; and realigning of Joerschke Drive at approximately KP R21.9 (PM R13.6) adjacent to SR 20 within the City of Grass Valley. Due to funding constraints, the proposed project may be built in phases. Full right of way (RW) acquisition and advanced design is proposed prior to any phased construction.

The proposed project will require 2.19 hectares (ha) (5.4 acres) of new RW consisting of purchase or easements along the highway and on Dorsey Drive from private landowners. Utilities will be affected. The proposed project may require a Section 404 Nationwide permit from the U.S. Army Corps of Engineers (USACE) and a Water Quality Certification (401 permit) from the Central Valley Regional Water Quality Control Board (CVRWQCB). As more than one acre of soil will be disturbed, compliance with the National Pollutant Discharge Elimination System (NPDES) permit and subsequent Storm Water Pollution Prevention Plan (SWPPP) will also be required.

Impacts to federal and state threatened or endangered species shall be minimized or eliminated through use of environmentally sensitive areas as well as limiting construction to seasonal windows when fewer species are in the area. Permanent impacts to wetlands will be mitigated at a ratio of 1:1 via wetlands creation within or near the project or by purchasing credits at an established mitigation bank. Temporary impacts to wetlands will be minimized by establishing environmentally sensitive areas (ESA), identifying non-entry for the remaining portion of any wetlands, and restoring work areas upon completion of the project. Additional wetland mitigation and avoidance requirements may be provided by resource agencies during the permitting process. Impacts to visual quality shall be minimized through use of visual screens.

## Project Location



## Summary of Environmental Consequences from Alternatives

Potential Impact		Project Alternative	No-Build Alternative
Land Use	Consistency with the Nevada County General Plan	All work on main line is consistent with the Nevada County General Plan.	No Impacts
Coastal Zone		The project lies outside the coastal zone.	No Impacts
Parks and Recreation		There are no parks or recreation areas within or adjacent to the project area.	No Impacts
Growth		Project does not promote unplanned growth. Proposed work decreases congestion and improves access to high-use sites along mainline. Long-term impact is reduced congestion and improved ingress/egress. No cumulative impacts identified.	No Impacts
Farmlands/Timberlands		There are no farmlands or timber lands identified in the project area.	No farmland will be acquired
Community Character and Cohesion		Affects 25 parcels consisting of strip takes on SR 20 and Dorsey Drive including 3 full property acquisitions within the project limits. Approximately 5.4 acres of new right of way (R/W) is needed to achieve the proposed project.	No Impacts
Relocation	Business displacements	One commercial building consisting of several small medical offices will be relocated. Additionally, 12 parking spaces within a senior health facility will be impacted. All affected parcels will be eligible for compensation at fair market value. Measures to reduce any net loss of parking will be developed during right of way negotiations.	No Impacts
	Housing displacements	Approximately 2 houses will be displaced. Those affected will be eligible for relocation benefits. Please see Appendix B for relocation benefits.	No displacements. No ingress/egress improvements will be made.
	Utility service relocation	Pacific Bell, PG & E, Comcast Cable TV, and City of Grass Valley Water and Sewer Services within the project footprint will undergo utility relocation.	No relocation of utilities.
Utilities/Emergency Services		Existing electrical lines, telephone lines, and water lines will be relocated. Existing drainage ditches will be replaced. Traffic controls will be in place during construction with priority given to emergency services. Project will be constructed to have minimal impacts on the public's access to local public service facilities. Long-term impacts include improved access to emergency and public services. No cumulative impacts identified.	No relocation of utilities. No improved access.
Traffic and Transportation/ Pedestrian and Bicycle Facilities		During construction hours, all traffic (motorized and non-motorized) will be limited to movement under the proposed traffic management plan. The long-term impact is that the widened overcrossing will accommodate existing bike and pedestrian traffic. No cumulative impacts identified.	No temporary traffic control measures or widening.
Visual/Aesthetics		All slope work will be done to contour to existing ground, where feasible. No substantial adverse impacts to scenic vistas or resources. No long-term or cumulative impacts identified. Vegetative screens or buffers shall be provided to address visual impacts.	No Impacts
Cultural Resources		No cultural resources identified in project area.	No impacts
Hydrology and Floodplain		No encroachment on to 100-year floodplain. No impacts to existing hydrology will occur. No long-term or cumulative impacts identified.	No Impacts
Water Quality and Stormwater Runoff		No new water, wastewater, or storm water facilities will be constructed or existing system expanded that will cause significant environmental effects. Exposed soils during construction will be addressed through erosion control measures. All drainage work will conform to water pollution control measures.	No changes or improvements to drainages.

<b>Geology/Soils/Seismic/ Topography</b>	Does not expose people or structures to potential substantial adverse effects from rupture of known earthquake faults, strong seismic ground shaking, seismic-related ground failure, or landslides. There are no known mineral resources affected by the project. Seismic testing will occur to locate any subsurface voids (mines) on the southwest quadrant.	No Impacts
<b>Hazardous Waste/Materials</b>	Yellow thermoplastic striping and asbestos containing materials may be considered hazardous waste or materials. Any encountered during construction will be disposed of according to all Federal, State and Local laws. No long-term or cumulative impacts identified.	No Impacts
<b>Air Quality</b>	During construction, the proposed project will generate air pollutants that would vary each day as construction progresses and will be minimized through air pollution and dust control measures in addition to compliance with County and Air Quality Management District ordinances. No long-term or cumulative impacts identified.	No temporary impacts
<b>Noise and Vibration</b>	Soundwalls are under consideration at 3 locations. See Appendix E. Noise generated during construction will be minimized through Department sound control measures that direct all work to comply with all local sound control and noise level rules, regulations and ordinances. No long-term or cumulative impacts identified.	None
<b>Natural Communities</b>	No fragmentation or lower functions or values of foothill woodlands adjacent to the area will result from this project. Recommend planting 5 trees for every oak tree greater than 1" dbh removed.	No Impacts
<b>Wetlands and other Waters</b>	A portion of the drainages (0.057 ac) identified as USACE wetlands will be impacted. Mitigation will be at a 1:1 ratio. Total fill would be 115 m <sup>3</sup> . Proposed compensatory mitigation will be required by moving drainage ditch back (if possible) 1-5 m. Any additional mitigation that cannot be recreated onsite will be mitigated at an approved USACE location. Orange barrier fencing will be installed to protect adjacent resources in project area.	No impacts to wetlands.
<b>Plant Species</b>	Up to 15 oak trees may be impacted with a majority occurring along Joerschke Drive and SR 20/49. Recommendation is to plant 5 trees for every tree greater than 1" dbh removed. Additional compensation may be incorporated as part of the permitting approvals.	No construction-related impacts to plants.
<b>Animal Species</b>	No federal or state threatened or endangered species or habitats identified. Surveys will be conducted prior to construction as part of the Migratory Bird Treaty Act.	No surveys or construction related impacts.
<b>Construction</b>	Temporary construction impacts of noise, dust, delayed traffic, and erosion at drainages. Best management practices for controlling air, noise, and traffic management will be employed. Erosion control measures at drainages will be employed. Access to side streets will be maintained.	No temporary construction impacts.

# Table of Contents

Summary .....	ii
List of Abbreviated Terms .....	viii
<b>Chapter 1</b> Proposed Project.....	1
Introduction .....	1
Purpose and Need.....	1
1.1.1 Purpose.....	2
1.1.2 Need .....	3
Alternatives .....	3
1.1.3 Build Alternative.....	4
1.1.4 No-Build Alternative .....	4
1.1.5 Alternatives Considered and Withdrawn .....	5
<b>Chapter 2</b> Affected Environment, Environmental Consequences, and Avoidance, Minimization and/or Mitigation Measures .....	6
Human Environment .....	8
2.1.1 Land Use .....	8
2.1.2 Community Impacts.....	10
2.1.3 Community Character and Cohesion .....	11
2.1.4 Utilities/Emergency Services.....	13
2.1.5 Traffic and Transportation/Pedestrian and Bicycle Facilities.....	14
2.1.6 Visual/Aesthetics .....	16
Physical Environment .....	21
2.1.7 Hazardous Waste/Materials .....	21
2.1.8 Geology / Soils / Seismic / Topography .....	25
2.1.9 Noise and Vibration .....	27
Biological Environment .....	30
2.1.10 Natural Communities.....	30
2.1.11 Wetlands and Other Waters .....	31
2.1.12 Plant Species .....	34
2.1.13 Animal Species .....	37
2.1.14 Listed animal species, or species with special consideration .....	37
Construction Impacts.....	39
Cumulative Impacts.....	41
<b>Chapter 3</b> Comments and Coordination.....	43
<b>Chapter 4</b> List of Preparers .....	45
<b>Chapter 5</b> Distribution List .....	46
<b>Appendix A</b> CEQA Checklist.....	47
<b>Appendix B</b> Summary of Relocation Benefits .....	58
<b>Appendix C</b> Title VI Policy Statement.....	60
<b>Appendix D</b> Design Plans.....	61
<b>Appendix E</b> Receptors.....	66
List of Technical Studies that are Bound Separately .....	67

## List of Figures

Project Location ..... iii

## List of Tables

Summary of Environmental Consequences from Alternatives ..... iv  
Table 2.1 Noise levels of typical activity ..... 28

## List of Abbreviated Terms

AC	Asphalt Concrete
ac	Acres
APE	Area of Potential Effect
AQMD	Air Quality Management District
BMP	Best Management Practices
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHP	California Highway Patrol
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CVRWQCB	Central Valley Regional Water Quality Control Board
CNPS	California Native Plant Society
dbh	Diameter At Breast Height
CDFG	California Department of Fish and Game
DOT	Department of Transportation
EA	Expenditure Authorization
EP	Edge of pavement
ESA	Environmentally Sensitive Areas
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
ft	foot/feet
ha	hectares
ISA	Initial Site Assessment
km	kilometer(s)
KP	kilometer post
m	meter(s)
m <sup>3</sup>	cubic meter
mi	mile(s)
NCTC	Nevada County Transportation Commission
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OC	Overcrossing
PM	post mile
RTP	Regional Transportation Plan
R/W	Right of Way
RSP	Rock Slope Protection
RWQCB	Regional Water Quality Control Board
SHOPP	State Highway Operation and Protection Plan
SR 20	State Route 20
STAA	Surface Transportation Assistance Act of 1982
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCE	Temporary Construction Easement
TMP	Traffic Management Plan
USACE	U.S. Army Corps of Engineers.
USGS	United States Geological Survey
WPCP	Water Pollution Control Program

# **Chapter 1**      Proposed Project

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## **Introduction**

The California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA), in cooperation with the Nevada County Transportation Commission (NCTC), and the City of Grass Valley propose to convert Dorsey Drive Overcrossing (OC) to an interchange and connect it to State Route (SR) 20/49 to improve access to specific high-use sites, relieve operations at adjacent interchanges and provide additional capacity on Dorsey Drive for future planned development in accordance with adopted City and County general plans.

Improvements include modifying or replacing the existing OC with a wider structure, constructing northbound and southbound auxiliary lanes on SR 20, and realigning Joerschke Drive adjacent to SR 20 at approximately KP R21.9 (PM R13.6) within the City of Grass Valley. Because of funding limitations, the project proponents (the City of Grass Valley and/or the County of Nevada) may propose construction in phases (see Appendix D). For the purposes of this Initial Study, the full Build Interchange and the No Build are evaluated.

This project is included in the 2004 Federal Statewide Transportation Improvement Program (FSTIP) for the 2006 - 2009 Fiscal Year (FY), and the 2002 Regional Improvement Program and is proposed for funding from the 2004 State Transportation Improvement Program. It is also included in the Nevada County 2002 Regional Transportation Plan (RTP).

## **Purpose and Need**

SR 20 in the project vicinity was constructed in the 1960's. The facility is a four-lane freeway with a 6.71-m (22-ft) wide median and a minimum right of way width of 43.28 m (142 ft). Dorsey Drive is a two lane arterial, extending from Nevada City Highway in the west to Sutton Way in the east, with the Dorsey Drive OC over SR 20/49. The nearest interchanges are the Idaho-Maryland/East Main Street Interchange approximately 1035 m (3400 ft) to the

south and the Brunswick Road interchange 850 m (2800 ft) to the north, as measured to the control line intersections.

SR 20 is designated as an east-west route, although in the project area the general alignment is north-south. Consequently any references to ‘southbound’ and ‘northbound’ traffic reflect westbound SR 20/southbound SR 49 and eastbound SR 20/northbound SR 49.

SR 20 is an ‘ocean to mountains’ route which begins at SR 1 near Fort Bragg and ends at Interstate 80 near Emigrant Gap. Within central California, the route runs 122 miles west to east through Colusa, Sutter, Yuba, Placer and Nevada counties. SR 20 is mainly a two-lane highway that serves regional, commercial, agricultural, and recreational traffic and interconnects with major routes such as I-5, 99, 70 and I-80. Traveling east through the Sierra foothills the route carries intra-regional traffic and acts as a connector for several small rural communities. In Grass Valley/Nevada City the route serves primarily local and recreational trips. Further east of Nevada City, as the route moves into the mountains, a larger percentage of the travel is recreational.

### **1.1.1 Purpose**

The project purpose is to alleviate the existing delays and general congestion at various access points within and adjacent to Dorsey Drive. Improvements include modifying or replacing the existing 2-lane structure with a 5-lane structure, constructing on- and off-ramps, constructing auxiliary lanes between existing and proposed ramps, and realigning Joerschke Drive. These proposed improvements will:

- Provide direct access to specific high use sites (Sierra Nevada Memorial Hospital and Sierra College)
- Relieve operational problems at the existing interchanges of Idaho-Maryland/East Main Street (to the south) and Brunswick Road (to the north)
- Provide additional capacity on Dorsey Drive for future planned development in accordance with adopted city and county general plans (Circulation Goal 4 – City General Plan)

### **1.1.2 Need**

The need for this project is due to various delays experienced at access points and general congestion in the interchanges ramp areas.

At this time, the Brunswick Road and Idaho-Maryland/East Main Street Interchanges serve as primary access to Sierra Nevada Hospital and the Sierra College-Nevada County Campus. Hospital emergency access currently uses either the Idaho-Maryland Road/East Main Street Interchange ramps for access from the south, or the Brunswick Interchange for access from the north. Due to lack of a direct route and general congestion in the interchanges ramp areas, these access points delay ambulances and traffic entering the hospital. Additionally, local traffic represents a high proportion of current mainline traffic volumes. Local traffic uses the freeway as an alternate north/south route for East Main Street. The addition of another interchange will provide additional opportunities for local traffic to use SR 20 as an alternative to local streets.

### **Alternatives**

The project is located in Nevada County on SR 20. The total length of the project is 3.7 kilometers (km) (2.3 miles). Within the limits of the proposed project, the existing roadway is a 4-lane divided conventional freeway. The purpose of the project is to relieve traffic congestion and circulation problems. Because of funding limitations, the project proponents (the City of Grass Valley and/or the County of Nevada) may propose construction in phases (see Appendix D). For the purposes of this Initial Study, the full Build Interchange and the No Build are evaluated. Phased construction may consist of any of the following:

- Single-ramp construction without widening Dorsey Drive
- Single-ramp construction with widening Dorsey Drive
- Double-ramp construction with widening Dorsey Drive
- Triple-ramp construction with widening Dorsey Drive

### 1.1.3 Build Alternative

This interchange design entails a full tight diamond interchange and would include widening for “northbound” and “southbound” ramps and auxiliary lanes from the Idaho-Maryland Interchange to the Brunswick Road Interchange. Dorsey Drive would be widened from two existing lanes to a maximum of five lanes. All ramps would terminate at signalized intersections. The project would also include realigning Joerschke Drive to provide room for the “southbound” off-ramp.

It is currently estimated this alternative would require 5.4 acres (ac) affecting approximately 25 properties consisting of three full property takes in addition to strip takes on both sides of Dorsey Drive. Optional staging and storage will occur within the R/W and utilities will be affected. Approximately five retaining walls are proposed (see mapping) and their locations are as follows:

Station 122 to 122 + 60	Westbound Onramp/right side
Station 123 to 124 + 69	Westbound Onramp/left side
Station 123 + 80 to 124 + 87	Eastbound Offramp
Station 125 + 09 to 125 + 40	Westbound Offramp
Station 125 + 60 to 126 + 60	Eastbound Onramp

The walls will range in height from approximately 0.6 m (2.0 ft) to 4.3 m (14.1 ft).

Sound walls are also being considered at the following locations:

Station 123+ 60 to 124+60	Soundwall S-2 (approximately 2.4 m [8-ft] high)
Station 125+30 to 129+15	Soundwall N-1 (approximately 3.1 m [10-ft] high)
Station 129+10 to 129+30	Soundwall N-1 on shoulder edge (approximately 3.1 m [10-ft] high)

### 1.1.4 No-Build Alternative

The “No Build” alternative consists of not undertaking any improvements listed under the “Build” alternative. Routine and necessary maintenance will continue on SR 20, however, construction of interchange and operational improvements would not occur. This alternative

would not meet the basic purpose to improve operations by establishing access to specific high-use sites, nor providing additional capacity on Dorsey for planned future development.

**1.1.5 Alternatives Considered and Withdrawn**

One alternative was dropped from further consideration in the project development process due to sensitive environmental resources, not meeting design standards, and take and/or encroachment on a public facility.

Full Tight-Diamond Round-about Interchange: This interchange design would include widening for “northbound” and “southbound” ramps and auxiliary lanes from the Idaho-Maryland Interchange to the Brunswick Road Interchange. Dorsey Drive would be widened from two existing lanes to a maximum of three lanes. All ramps would terminate at roundabout intersections. The project would also include realigning Joerschke Drive to provide room for the “southbound” off-ramp.

The Nevada County Transportation Commission (NCTC) dropped this alternative as a viable alternative in December 2004 because it did not meet design standards, including speed and geometrics.

**Permits and Approvals Needed**

The following permits, reviews, and approvals would be required for project construction:

<b>Agency</b>	<b>Permit/Approval</b>	<b>Status</b>
United States Army Corps of Engineers	Section 404 Permit for filling or dredging waters of the United States.	Application for Nationwide 404 permit anticipated after final environmental document approval.
California Regional Water Quality Control Board- Central Valley Region	Water Quality Permit	Section 401 permit anticipated after final environmental document approval.

## **Chapter 2**      Affected Environment, Environmental Consequences, and Avoidance, Minimization and/or Mitigation Measures

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This chapter combines a discussion of the environment in which the proposed project is to be built, the potential effects of the proposed project alternatives on that environment, and the measures proposed to avoid, minimize, or mitigate potential impacts.

The environmental impacts presented in this Initial Study are based on technical studies conducted for this highway project. The technical studies prepared for this environmental analysis are listed below and are available for review from Caltrans' North Region Environmental Office at 2389 Gateway Oaks, Suite 100, Sacramento, CA 95833. Please contact Gregoria Ponce Garcia at 916-274-0565 or [gregoria\\_garcia@dot.ca.gov](mailto:gregoria_garcia@dot.ca.gov) for more information.

Air Quality and Energy Evaluation, November 2005  
Community Impact Assessment, December 2005  
Floodplain Evaluation, October 2005  
Historic Property Survey Report, December 2005  
Preliminary Geotechnical Report, October 2005  
Natural Environment Assessment, June 2005  
Noise Evaluation, December 2005  
Hazardous Waste Study, November 2005  
Traffic Management Plan 2005  
Traffic Report, October 2003  
Visual Impact Assessment, December 2005  
Water Quality Report, December 2005

As part of the scoping and environmental analysis conducted for the project, the following environmental resources were considered, but no potential for adverse impacts to these resources was identified. Consequently, there is no further discussion regarding these resources in this document:

- Coastal – The project is located outside coastal zone.
- Farmlands/Timberlands – No farmland/timberlands are adjacent to this project.
- Wild and Scenic Rivers — No State wild or scenic rivers are found within project area. Existing scenic views will be maintained through minimal alteration (Landscape studies 12/2005).
- Parks and Recreation — No parks or recreation areas will be impacted. No long-term or cumulative impacts identified (Community Impacts Assessment 12/2005).
- Growth — The project will not induce substantial population growth, displace substantial numbers of existing housing, or displace substantial numbers of people. No growth is expected from interchange improvements and shoulder construction as proposed work improves circulation and ingress/egress to high-use sites for existing movements along SR 20 (Community Impacts Assessment 12/2005).
- Cultural Resources — No cultural resources are affected within project area (HPSR 12/2005).
- Paleontology— No paleontological resources found (HPSR 12/2005).
- Air Quality—Project level air quality analyses shows that there are no current violations of the carbon monoxide (CO) standard in the area substantially affected by the project, nor are any violations expected as a result of the project. Therefore, this project is found to be in conformance with the State Implementation Plan in accordance with the final conformity requirements of the Clean Air Act of 1990 and its Amendments. Implementation of this project will not have any negative impact to the air quality environment (Air Quality Study 12/2005).
- Water Quality/Stormwater Runoff — Project will implement best management practices and incorporate National Pollutant Discharge Elimination System and storm-water pollution minimization measures (Water Quality Report December 2005).

- Floodplain/Hydrology — No Impact. Project does not encroach upon 100-year floodplain nor affect existing hydrology (Floodplain Evaluation, October 2005).

## **Human Environment**

### **2.1.1 Land Use**

#### ***Regulatory Setting***

The Nevada County General Plan sets the boundaries and land use for the area as prepared by the Nevada County Community Development Department and approved by the County Board of Supervisors.

#### ***Affected Environment***

The project area is a mix of land uses, including single- and multiple-family homes, commercial buildings, office space, and medical facilities.

#### **Existing and Future Land Use**

The Grass Valley General Plan's Circulation Element identifies Dorsey Drive as a collector road. The classification is based on the road's traffic volume: approximately 5,500 vehicles daily on two lanes, under free-flow conditions. Arterials, the largest local roads, typically see volumes of about 9,300 vehicles a day (free-flow volume) for a two-lane arterial, and 18,600 vehicles daily (free-flow volume) for a four-lane arterial. The General Plan projects that Dorsey Drive will include a four-lane segment between the project location and East Main Street.

The Grass Valley 2020 General Plan Land Use Plan Map shows the project area transitioning toward more non-residential uses in areas currently used for single-family homes. The area of single-family homes on Dorsey Drive just west of SR 20 is shown as an Office Professional (OP) district on the 2020 Land use Plan Map.

The proposed project is a component of Grass Valley's 2020 General Plan. Construction of this project would not disrupt planning in the project area. However, not constructing this

project may disrupt Grass Valley's plans for growth and traffic movement. The General Plan's Draft EIR puts the Dorsey Drive interchange in a list of traffic improvements that are "necessitated in part by existing development and by proposed development north and east of Downtown."

### ***Impacts***

The proposed project will require 2.19 hectares (ha) (5.4 acres) of new right of way (R/W). R/W takes consist of purchase or easements, along the highway and on Dorsey Drive from private landowners. Included are three full acquisitions consisting of two residences and one commercial building. The proposed project is consistent with the City's General Plan. The cumulative effect of the proposed project in conjunction with other past, present, and planned projects would be to further the City's land use goals, objectives, and policies. Project construction would not affect land use or development patterns in this area. Land use and development are determined by underlying social, political, and economic forces. Temporary construction impacts would not alter the long-term outlook for this area.

### ***Avoidance, Minimization and/or Mitigation Measures***

Property owners who incur permanent impacts to their property due to project implementation may be subject to compensation as set forth in the Federal Uniform Relocation Assistance and Real Properties Acquisition Policies Act, as Amended. See Appendix B for relocation benefits.

### ***Consistency with State, Regional and Local Plans***

This project is included in the 2004 Federal Statewide Transportation Improvement Program (FSTIP) for the 2006-2009 Fiscal Year (FY) and the 2002 Regional Improvement Program and proposed for funding from the 2004 State Transportation Improvement Program. It is also included in the Nevada County 2002 Regional Transportation Plan (RTP).

## 2.1.2 Community Impacts

### ***Affected Environment***

The project area is a mix of land uses, including single- and multiple-family homes, commercial buildings, office space, and medical facilities. The project area is home to 3,800 people, and according to the 2000 US Census, has an unusually high proportion of elderly residents: 23 percent of project area residents were 70 years or older at the time of the 2000 Census. This is likely connected to the concentration of assisted living and convalescent homes in the area. Within the three Census Block Groups that comprise the project area, 86 percent of residents are white. Hispanic residents make up seven percent, American Indians make up three percent of the population, and Asian residents make up one percent. The average poverty rate for the project area is 19 percent, compared to nearly 15 percent in Grass Valley, suggesting the presence of a low-income community.

### ***Impacts***

The project would have a positive effect on commercial property values in the interchange's vicinity since it would mean a substantial improvement in accessibility to businesses. It would also have a positive impact on residences located in the area, with the exception of the homes on Dorsey Drive immediately adjacent to the interchange. These homes would likely see a loss in property values.

#### *Sierra Nevada Memorial Hospital*

Sierra Nevada Memorial Hospital is the largest community facility in this area. Its access is currently relatively poor: it can be reached from East Main Street by way of an unsignalized intersection with Presley Way and from Dorsey Drive by way of an unsignalized intersection with Catherine Lane.

While the project would not provide a signal at Catherine Lane and Dorsey Drive, it would improve access to the hospital by adding off-ramps from the freeway at Dorsey Drive, about two-tenths of a mile from Catherine Lane. At the same time, the addition of traffic to Dorsey Drive may make it more difficult for non-emergency vehicles to make left-hand turns at the Dorsey Drive/Catherine Lane intersection.

*Sierra College (Nevada County Campus)*

Northwest of East Main Street, Dorsey Drive connects with Sierra College Boulevard, providing access to Sierra College's Nevada County campus. This two-year "commuter" college has an enrollment of 3,500 and plans to expand. A Dorsey Drive interchange would allow easier access to and from the freeway.

*Medical Facilities*

The proposed full-diamond interchange would require demolishing a suite of medical offices at 409 Joerschke Drive. While the business tenants would receive relocation assistance, they may or may not be able to find suitable relocation sites in this neighborhood. As a result, residents of this neighborhood may lose immediate access to the services provided in this office. Most recently, it was occupied by a group of eye surgeons.

No substantial impacts to property tax revenues or current land use patterns are expected. One lane on SR 20 is expected to remain open while construction is actively in progress. Access to side streets and driveways is expected to remain open within the project limits during construction. Construction noise and dust would temporarily impact the residents of the homes adjacent to the project. The implementation of Caltrans' Standard Specifications will reduce noise and dust impacts to less than significant levels.

No permanent adverse impacts to access are expected. Long-term impacts include improved safety as well as enhanced circulation and access points within the project limit. No cumulative impacts are identified.

### **2.1.3 Community Character and Cohesion**

#### **Regulatory Setting**

Under CEQA, an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Since this project would result in physical change to the

environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project's effects.

## **Affected Environment**

The project area is a mix of land uses, including single- and multiple- family homes, commercial buildings, office space, and medical facilities. Community cohesion in the area is low, with the exception of the clusters of single-family homes in the neighborhood. These residents know one another and have lived in their homes for many years, although this is not the norm for this area. Nearly 70 percent of the housing units in the area are in apartment complexes, with a high turnover rate. Additionally, a large apartment complex can be somewhat self-contained; residents may know one another, but have little connection to the larger community.

## **Impacts**

Dorsey Drive is not used by out-of-town traffic currently, other than visitors to the convalescent facilities in the area. Adding freeway on- and off-ramps will change that, as visitors to Grass Valley seek to avoid congestion. Local traffic will be drawn to these ramps for similar reasons. The Build Alternative would require displacing the residents of two of the single-family detached homes in the area, both located on Dorsey Drive. A medical building on Joerschke Drive would also be displaced in order to make way for the Joerschke Drive realignment. The other build phases and the No Build Alternative would not require residential displacements. Sufficient replacement housing is available in the project area for the displaced families. See Appendix B for relocation benefits.

Golden Empire Convalescent Home (GECH), situated on the southwest corner of the proposed interchange, would see reduced access as a result of the proposed project. Left-hand turns in and out of the facility, and right-hand turns out of the facility's Dorsey Drive driveway would be eliminated. Access would continue to be available by way of a half-mile detour along Catherine and Margaret Lanes. The project would reduce staff parking at GECH located adjacent to Dorsey Drive from 25 to 13 spaces. Representatives from this facility have stated that the parking supply is very limited and that parking spaces must be replaced in order for their facility to remain viable.

The two other senior citizen homes in the area would have their access to Joerschke Drive realigned under the Build Alternative.

Overall the neighborhood's character would change given the proposed project, but the changes would be both positive and negative. Traffic volumes would increase but, at the same time, sidewalks and soundwalls would be added. In addition, people living in this area would have much easier access to the freeway.

### **Avoidance, Minimization and/or Mitigation Measures**

Relocation assistance payments and counseling will be provided to persons and businesses in accordance with the Federal Uniform Relocation Assistance and Real Properties Acquisition Policies Act, as Amended, to ensure adequate relocation and a decent, safe, and sanitary home for displaced residents. Sufficient replacement housing is available in the project area for the displaced families. Additionally, Caltrans will work with GECH to minimize and remedy the loss of parking during the R/W negotiations via replacement and/or compensation.

All eligible displacees will be entitled to moving expenses. All benefits and services will be provided equitably to all residential and business relocatees without regard to race, color, religion, age, national origins and disability as specified under Title VI of the Civil Rights Act of 1964.

#### **2.1.4 Utilities/Emergency Services**

The utility companies involved or affected include Pacific Bell, Pacific Gas and Electric, Comcast Cable TV, and City of Grass Valley Water Services District. Emergency Services include law enforcement, fire, and medical services.

### **Affected Environment**

Overhead utilities run along both sides of the highway and cross the highway near the eastern and western project boundaries. Overhead utilities run along both sides of Dorsey Drive and cross the road at both ends of the Dorsey Drive OC. Underground utilities run along both

sides of the highway and along Dorsey Drive. Additionally, there are electrical, telephone and cable poles along both sides of the highway.

## **Impacts**

Ground disturbance within the project footprint will occur as a result of utility relocation. The types of facilities and agreements required include aerial electrical, telephone and cable on wooden poles, buried telephone cables, waterlines and fire hydrants. Temporary impacts include delayed traffic due to traffic controls and construction equipment movement during utility relocation. Long-term impacts include relocated utilities. No other long-term impacts or cumulative impacts identified.

## **Avoidance, Minimization and/or Mitigation Measures**

A traffic management plan (TMP) will be implemented to address circulation of existing motorized and non-motorized traffic and facilitate movement of law enforcement, fire, other emergency services, and County school transportation that could be affected by the project. Additionally, access to side roads, and residences shall be maintained at all times. Measures include, but are not limited to, signage, and noticing to public and emergency services of detour paths and work periods prior to lane detours. The relocation of power, telephone, cable, and water lines will be done in a manner to avoid disruption of services. The relocation of utilities will be carried out in close coordination between service providers and Caltrans to ensure minimal impacts.

### **2.1.5 Traffic and Transportation/Pedestrian and Bicycle Facilities**

#### **Regulatory Setting**

State Route 20 is an ‘ocean to mountains’ route which begins at SR 1 near Fort Bragg and ends at Interstate 80 near Emigrant Gap. Within central California, the route runs 122 miles west to east through Colusa, Sutter, Yuba, Placer and Nevada counties. SR 20 is mainly a two-lane highway that serves regional, commercial, agricultural, and recreational traffic and interconnects with major routes such as I-5, 99, 70 and I-80. Traveling east through the Sierra foothills the route carries intra-regional traffic and acts as a connector for several small rural communities. In Grass Valley/Nevada City the route serves primarily local and recreational

trips. Further east of Nevada City as the route moves into the mountains, a larger percentage of the travel is recreational. The majority of the existing traffic on the mainline is local traffic.

## **Affected Environment**

Within the project area, SR 20 is a four-lane freeway with paved shoulders. At this time local traffic accesses the freeway at the Brunswick ramps and the East Main Street and Idaho Maryland Street ramps. The Dorsey Drive OC currently has one sidewalk on the south side, but there are no bicycle facilities. Shoulders along Dorsey Drive are relatively narrow or non-existent in some locations, and are not well suited to non-motorized traffic. There are 6 existing bus stops within the project limits. Two (one each direction) in front of the AAA building between Segsworth Way and Spree Avenue; two at the corner of Joerschke Drive and Dorsey Drive; and two east of SR 20 at the apartment complex in the northeast quadrant.

## **Impacts**

Future traffic is projected to consist mainly of local traffic on the mainline. Without the Dorsey Drive Interchange, local traffic will be restricted to accessing the freeway at the Brunswick ramps and the East Main Street and Idaho Maryland ramps. The existing ramp volumes will increase significantly. With the Dorsey Interchange, existing ramp volumes will experience some relief. Volumes on the freeway will increase with the Dorsey Interchange, but freeway speeds will not decline with the added auxiliary lanes. Delay per mile and overall freeway delay will improve marginally with the Dorsey Interchange. Based on traffic model results, the greatest benefit of the project is a reduction in overall local network delay. Under the 2027-year No-Build scenario, there will be approximately 356 cumulative hours of local street delay due to traffic congestion. With the full interchange, there will be 323 hours of delay resulting in 9% less traffic delay than the No-Build scenario. Street crossings at the on- and off-ramps, which could provide obstacles for pedestrians on Dorsey Drive, will be improved by signalization and demarcation of crosswalks.

### *Transit*

The project would add eight-foot shoulders to Dorsey Drive, which would be sufficient to allow buses to pull over at these bus stops. Gold Country Stage has recommended that the project include bus shelters.

During construction, all traffic (motorized and non-motorized) will be directed under the proposed TMP. Long-term impacts will be that the widened overcrossing will accommodate existing bike and pedestrian traffic with widened shoulders and sidewalks. This additional widening will improve visibility of existing bicyclists and pedestrians by passing motorists. The auxiliary lanes will improve local and highway circulation to high-use sites. The existing bus stops will remain.

### **Avoidance, Minimization and/or Mitigation Measures**

The project as proposed would provide safe pedestrian crossings at the interchange ramps. Because of the high proportion of elderly residents in this area, one or more of the following (see *Flexibility in Highway Design*) should be included to improve these pedestrian crosswalks:

- Distinguishing materials, such as brick or patterned concrete to make the crosswalk more visible and visually arresting for drivers
- Granite edging
- Colored pavement or solid painting
- Traffic signals at these intersections should include push buttons for pedestrians.

A TMP will be implemented to address traffic circulation and facilitate movement of law enforcement, fire, other emergency services, and County school transportation that could be affected by the project. These measure include, but are not limited to, signage, advance flaggers, noticing to public and emergency services of detour paths and work periods prior to lane detours. A minimum of one lane and shoulder shall remain open for traffic at all times. Additionally, access to side roads and residences shall be maintained at all times. Existing bus stops will be perpetuated.

#### **2.1.6 Visual/Aesthetics**

The project is located in the western slope of the Sierra Nevada in northeast central California at an elevation of approximately 2,600 feet above sea level within the Grass Valley USGS Topographic Quad, T16N R8E Section 23, Mount Diablo Base Meridian (MDBM).

The area has scattered development containing residential, senior and low-income housing, businesses and vacant lots throughout the project limits. The roadsides in Caltrans' R/W are heavily disturbed and primarily consist of non-native annual grassland and ruderal vegetation. In the commercially developed portion, the area is landscaped with ornamental plantings.

### **Regulatory Setting**

CEQA establishes that it is the policy of the state to take all action necessary to provide the people of the state "with...enjoyment of *aesthetic*, natural, scenic and historic environmental qualities." [CA Public Resources Code Section 21001(b)]. SR 20, although not listed as a State Designated Scenic Highway, is listed as Eligible and as such, care must be taken to preserve the existing resources to maintain the visual quality of the highway.

### **Affected Environment**

The visual environment is divided into 2 viewing groups, residential viewers and roadway viewers. Roadway viewers are defined as a large viewer group traveling along SR 20 and include commuters, local residents, and weekend recreation drivers destined for both locally and for the Sierra Nevada. Residential viewers are defined as mostly residents of the single-family homes in the project area located along Dorsey Drive, and local business visitors.

### **Impacts**

#### *Roadway Viewers*

##### *East Side of SR 20*

At the beginning of the project, near Idaho Maryland Road, there are a number of commercial establishments. Currently, these buildings are visually separated from SR 20 by a tall retaining wall. A new steel structure building and a new frontage road are currently under construction.

The proposed project will create 15 to 50-m (50-164 ft) high fill slopes with a gradient of 2:1 near SR 20. These slopes will require construction of retaining walls. The adjacent landowners are commercial establishments with a lesser sensitivity to visual impacts than

residential viewers. These slopes will create a visual buffer and will be planted with erosion control type seeding. The lands closer to Dorsey Drive Interchange are currently vacant commercial properties. There are apartment buildings at the northeast quadrant of Dorsey Drive and SR 20. Dorsey Drive widening will place the edge of pavement closer to these buildings.

A row of pine trees on the east side of the apartment buildings will be removed and replaced with a soundwall. This will be a negative visual impact for dwellers of the apartment buildings. There is a mobile home park on the north end of the project. There are no windows facing SR 20 and the proposed soundwall will continue along the entire length of the mobile home park. The visual impact will not be adverse for these viewers.

#### *West Side of SR 20*

Sierra Hospital and a convalescent hospital are located between Idaho Maryland Road and Dorsey Drive. Sierra Hospital is currently located at a higher elevation from SR 20. The project will place 30- to 40-m (98-131 ft) cut slopes with retaining walls on the west side of SR 20.

The visual impact will be minimal for the Sierra Hospital and the convalescent hospitals, as the cut slopes on lower elevations would not be visible to them. The visual impact of the project would entail placing these structures closer to the freeway, but on top of the cut slope. A 3.1 m (10-ft) high soundwall is being considered on the westbound onramp near Dorsey Drive, which would provide a visual buffer for the convalescent hospital from SR 20.

North of Dorsey Drive, at Joerschke Drive, there are a combination of single-family homes, apartments, assisted living, convalescent hospital and commercial buildings. Joerschke Drive realignment will improve traffic safety and install a sidewalk in this area. The proposed project will be a visual enhancement for Joerschke Drive.

The proposed widening on SR 20 requires construction of slopes, retaining walls and consideration of soundwalls. After implementation of mitigation measures, the visual impact of walls and slopes would be reduced. Most of the viewers are currently exposed to similar views of the highway. The proposed project would not reduce the eligibility of the highway for Scenic Designation. For the most part, the visual character of SR 20 will remain intact.

### *Residential Viewers*

#### *North Side of Dorsey Drive*

The proposed project's visual impacts to the apartment buildings on the southeast quadrant of Dorsey Drive and SR 20 were previously discussed. There are five structures between SR 20 and Segsworth Way. The structure nearest to SR 20 at 409 Joerschke Drive and a house at 116 Dorsey Drive would be removed to provide for the Dorsey Drive widening and Joerschke Drive realignment. The second house at 118 Dorsey Drive would be removed for construction of Joerschke Drive. The home at 114 Dorsey Drive will be placed closer to the future R/W of Joerschke Drive. The home at 112 Dorsey Drive will not be greatly impacted as it contains an existing shrub hedge, which will remain.

To the north of Segsworth Way, an apartment building would be placed closer to the edge of pavement due to the widening and also lose some of its parking space. Overall, the project results in a reduction in visual quality for homes in this area.

#### *South of Dorsey Drive*

The visual impact of the project will not be adverse for the future viewers of the vacant commercial property at the southeast corner of Dorsey Drive and SR 20. Any future construction will provide visual buffers and plantings in accordance with local requirements.

As a result of Dorsey Drive widening, on the west side of SR 20, the Golden Empire Convalescent Hospital would lose some of their parking space. The visual impact will be minimal at this location, as a proposed soundwall on SR 20 would provide a visual buffer if constructed.

The single-family home at 111 Spree Avenue, a corner lot, would be placed closer to the right of way due to the widening, both on Dorsey Drive and Spree Avenue. The home at the northwest corner of Spree Avenue and Dorsey Drive would be placed 0.9-1.2 m (3 to 4 ft) from the future right of way due to the widening, with an adverse visual impact. Farther west, the AAA parking lot and Spring Pharmacy will be placed closer to the edge of pavement after Dorsey Avenue is widened.

### **Avoidance, Minimization and/or Mitigation Measures**

The following measures will be taken to reduce visual impacts to less than adverse and to improve the visual quality of the highway within the project area.

- Impacts to existing vegetation within the proposed Caltrans' R/W will be minimized where possible.
- Removed or affected yard appurtenances such as fencing, landscaping, and mailboxes will be replaced in kind or the landowners shall be compensated as part of the mitigation. Driveways will be perpetuated.
- Visual screens will be provided in the form of either a planting screen or a garden wall. This will reduce the visual adversity to less than adverse, after implementation.

Additional measures include:

1. Where space permits, provide a planting screen for the single-family homes located on Dorsey Drive.
2. Provide plantings of native trees and shrubs for the new Dorsey Drive Interchange.
3. Incorporate appropriate replanting measures in accordance with the biological requirements due to the removal of approximately 15 valley and blue oak trees.
4. Provide the same species of native pine trees as are being removed nearest to their existing location in the project planting plans to preserve the visual character.
5. At the end of construction all areas used for staging, access or other construction activities shall be contour graded in such a way as to visually integrate them into the surrounding topography.

6. Should a soundwall installation be necessary, the following measures will ensure a minimal visual impact.
  - i. Sound wall design must use materials similar to those placed along other portions of the corridor and must also be compatible with native materials. Similar material, pattern, color and style are recommended to provide continuity and visual interest to the corridor landscape.
  - ii. A landscape plan must be prepared to provide appropriate landscape screening of sound walls to minimize the potential for graffiti and other nuisances. Appropriate landscape materials will be determined based on the placement of the wall and available setbacks. Generally, trees require a 30-foot setback, shrubs need approximately 20 feet and vines can be planted and trained to grow up the wall. A combination of these plantings may be appropriate for this area. The Office of Landscape Architecture can provide a planting design for the project as a part of the sound wall design effort.
7. Appropriate aesthetic enhancements shall be incorporated for the proposed retaining walls and soundwalls.
8. Designs shall be in harmony with the existing highway materials and designs used for SR 20 in Grass Valley and vicinity.

The project landscape architect will be contacted during design phase of NPDES/storm water features in order to facilitate mitigation measures.

## **Physical Environment**

### **2.1.7 Hazardous Waste/Materials**

Many state and federal laws regulate hazardous materials and hazardous wastes. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health and land use.

### **Regulatory Setting**

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976, and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning. Worker health

and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction.

### **Affected Environment**

The area is characterized as urbanized revealing the presence of underground gas lines and other utilities including high voltage cables. There are no *documented* underground storage tanks in the area. Ground formations of serpentine cobbles and veins were also noted throughout the project corridor. This material contains asbestos fibers in varying degrees that may be released when the soil is disturbed. A hazardous waste evaluation was conducted in November 2005 and included a review of available environmental records conducted by “Environmental Data Resources, Inc.”, the study of aerial photographs, and a field review.

### **Impacts**

The project requires surface and sub-surface ground disturbance, demolition of various structures and potentially substructures. Additionally, utilities will be relocated. Based on this initial site investigation, the potential for hazardous waste petroleum hydrocarbons is not expected to exist within the project study limits. The investigation for lead in the yellow traffic stripe, aerially deposited lead (ADL), and a geologic assessment of the site for Naturally Occurring Asbestos (NOA) was performed within the Caltrans existing R/W and City R/W along Dorsey Drive.

#### *Yellow Traffic Stripe*

The yellow traffic stripe typically contains heavy metals such as lead and chromium that exceed hazardous waste thresholds established by the California Code of Regulations (CCR) and may produce toxic fumes when heated.

#### *Aerially Deposited Lead*

Based on the highest reported total ADL concentrations, the maximum level found is below the EPA benchmark for lead in industrial soil. Results for residential analysis found low samples for total lead. Therefore, it is concluded that lead-impacted soil in the areas

investigated does not pose a significant risk to the health of workers performing the construction activities.

#### *Naturally Occurring Asbestos*

Material containing NOA at or above 0.25 percent was not identified at the project site.

### **Avoidance, Minimization and/or Mitigation Measures**

#### *Yellow Traffic Stripe*

The Contractor shall prepare a project specific Lead Compliance Plan to prevent or minimize worker exposure to lead while handling removed yellow thermoplastic and yellow paint residue. Attention is directed to Title 8, California Code of Regulations (CCR), Section 1532.1, "Lead," for specific Cal-OSHA requirements when working with lead. The removed yellow traffic stripe material shall be disposed of at a California hazardous waste Class 1 disposal facility.

#### *Aerially Deposited Lead*

Per the requirements of CCR Title 8, Section 1532.1, the "Lead in Construction" standard, the excavation contractor(s) should prepare a project specific Lead Compliance Plan (LCP) when working with lead to prevent or minimize worker exposure to ADL contaminated soil. The plan should include protocols for environmental and personnel monitoring, requirements for personal protective equipment, and other health and safety protocols and procedures for the handling of ADL contaminated soil.

The Contractor shall prepare a project specific "Lead Compliance Plan" and a lead awareness training to prevent or minimize worker exposure to lead while handling material potentially containing ADL. Handling material containing ADL shall be in conformance with rules and regulations including, but not limited to the following agencies:

- California Division of Occupational Safety and Health Administration (Cal-OSHA)
- California Regional Water Quality Control Board
- Department of Toxic Substances Control (DTSC), Northern California

Before submission to the Engineer, the Lead Compliance Plan shall be approved by an Industrial Hygienist certified in Comprehensive Practice by the American Board of Industrial Hygiene.

*Naturally Occurring Asbestos*

Although material-containing NOA at or above 0.25 percent was not identified on the site, the following conclusions and recommendations are applicable if subsequent work reveals the presence of such NOA containing materials. NOA is a State of California regulated substance. In the event that NOA is discovered at levels exceeding the California Air Resources Board (CARB) regulatory limit of 0.25 percent NOA content, the excavated materials cannot be used as, or in such a way that it could fall under the definition of surfacing material as defined by the CARB Rules.

No asphalt concrete (AC) grindings may be placed in shoulder backing at locations where erosion or maintenance operations could result in their deposit into waterways. Surplus excavated soil if any, shall not be disposed of outside the project limits. Caltrans handling procedures for soil must include Dust Control, Spillage Prevention, and Air Quality Monitoring during construction.

If any structures are to be acquired, then they must be tested for asbestos containing materials (ACM), lead-based paint, and underground storage tanks. At this time, presence is undetermined for petroleum hydrocarbons and NOA adjacent or beneath structures.

Currently, regulatory exposure limits and health hazard data are not available for NOA in soils. Federal regulations governing asbestos define it as the asbestiform variety of the amphibole minerals actinolite, amosite, anthophyllite, crocidolite, and tremolite; and the asbestiform variety of serpentine, and chrysotile. Asbestos fibers occurring in industrial materials are considered by the National Institute for Occupational Safety and Health (NIOSH) as potential occupational carcinogens. Therefore, prudence is recommended in dealing with soils potentially containing NOA. Engineering controls such as wet suppression should be utilized to minimize aerial dispersion of NOA fibers in planned work areas during

excavation and road construction activities. Under Title 8 Section 5208 of the California Code of Regulations, disturbance of asbestos containing materials requires wet working methods and possible respiratory protection and air monitoring.

Nevada County has been using the NOA guidelines and regulations that El Dorado County, California has implemented for handling and disposal of NOA containing materials as reference. However, contractors should contact the Nevada County Department of Environmental Health for their current guidelines and regulations for handling and disposal of NOA containing materials. The CARB has established protocols outlined in Title 17, CCR, Section 93105 for the implementation of worker health, safety and monitoring plans for excavation and grading of NOA containing soils. Contractors handling asbestos containing material should also consult Title 17, CCR Section 93105, and contact the California Occupational Safety and Health Administration to establish the appropriate regulatory protocol and actions necessary for excavation and/or disturbance of asbestos-containing soils.

## **2.1.8 Geology / Soils / Seismic / Topography**

### **Regulatory Setting**

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects “outstanding examples of major geological features.” Topographic and geologic features are also protected under the California Environmental Quality Act.

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. The Caltrans’ Office of Earthquake Engineering, in assessing the seismic hazard uses the anticipated Maximum Credible Earthquake (MCE) from young faults in and near California. The MCE is defined as the largest earthquake that can be expected to occur on a fault over a particular period of time.

## **Affected Environment**

Local geology in the area is characterized by Paleozoic-era marine sedimentary, and non-sedimentary sandstone, shale, limestone, dolomite, chert, quartzite, and phyllite; and Mesozoic-era granite, quartz monzonite, grandiorite, quartz diorite, and Franciscan Complex (included Cretaceous and Jurassic sandstone with smaller amounts of shale, chert, limestone, and conglomerate). Three northwest/southeast trending faults, including the Grass Valley Fault pass through the area within or near the project boundaries. The Caltrans California Seismic Hazard Map dated 1996 identifies the Bear Mountain fault located less than one kilometer (0.62 mi) south of the site.

A review of various General Land Office (GLO) maps (1883-1984) revealed that extensive quartz mining had occurred in the general area, mostly between the late 1800's and early 1900's. The most recent plate (1984) also indicated the presence of a number of quartz mines in the project vicinity, including the Spring Hill Mine, which appears to be adjacent to the proposed project corridor. At this time, there is no evidence that any of these mining claims are actively mined. The Spring Hill Mine, although currently inactive, first appeared on the 1904 map, and is depicted on the 1973 United States Geological Survey (USGS) topographic quadrangle for Grass Valley. There were no mines or claims in the project corridor indicated on the 1984 GLO maps, but the USGS quadrangle indicates that at least a portion of the Spring Hill Mine lies in the southeastern quadrant of the project area.

## **Impact**

Soils in the project area are dominated by serpentine (Dubakella complex) outcroppings. Serpentine cobbles and veins are noted in several places throughout the project site. The California Geologic Map and soil surveys for the area confirmed that serpentine is a primary component of the local geology. Serpentine is a rock type that contains natural asbestos fibers that can be hazardous when the material is disturbed. Asbestos fibers are more readily released and contained in greater concentrations in certain types of serpentine; some variations, on the other hand, contain asbestos in negligible amounts. There is also the potential to encounter old mining shafts and/or adits during excavations, which may require significant work to mitigate and to protect the new facilities.

The realignment of Joerschke Drive will take place at or near existing grade. A portion of the realignment falls on and near footprints of existing buildings that may include surface and sub-surface utilities or structures (basement, trenches, and septic systems).

### **Avoidance, Minimization and/or Mitigation Measures**

Further investigation and proper monitoring and handling of serpentine material will occur during the project construction phase as specified pursuant to hazardous waste specifications. Additionally, seismic refraction work is recommended to assist in determining the existence and scope of subsurface voids from old mining operations. Realignment of Joerschke Drive will include locating surface and sub-surface utilities and structures, subsequent removal and properly backfilling the excavations.

## **2.1.9 Noise and Vibration**

### **Regulatory Setting**

The National Environmental Policy Act and the California Environmental Quality Act provide the broad basis for analyzing and abating the effects of highway traffic noise. The intent of these laws is to promote the general welfare and to foster a healthy environment.

For highway transportation projects with Federal Highway Administration involvement, the Federal-Aid Highway Act of 1970 and the associated implementing regulations (23 Code of Federal Regulations 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations contain noise abatement criteria that are used to determine when a noise impact would occur. The noise abatement criteria differ depending on the type of land use under analysis. For example, the criterion for residences (67 decibels) is lower than the criterion for commercial areas (72 decibels). Table 2.1 lists the noise abatement criteria and noise levels of typical activities.

Table 2.1 Noise levels of typical activity

Activity Category	Noise Abatement Criteria, A-weighted Noise Level, Average Decibels Over One Hour	Description of Activities
<b>A</b>	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>B</b>	67 Exterior	Picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals
<b>C</b>	72 Exterior	Developed lands, properties, or activities not included in Categories A or B above
<b>D</b>	--	Undeveloped lands
<b>E</b>	52 Interior	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums

Caltrans Traffic Noise Analysis Manual. 1998. A-weighted decibels are adjusted to approximate the way humans perceive sound

Caltrans' *Traffic Noise Analysis Protocol* sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is basically an engineering concern. A minimum 5-decibel reduction in the future noise level must be achieved for an abatement measure to be considered feasible. Other considerations include topography, access requirements, other noise sources, and safety considerations. The reasonableness determination is basically a cost-benefit analysis. Factors used in determining whether a proposed noise abatement measure is reasonable include: residents' acceptance, the absolute noise level, post-construction versus existing noise, environmental impacts of abatement, public and local agencies' input, newly constructed development versus development pre-dating 1978, and the cost per benefited residence.

### Affected Environment

A project site visit was performed to identify uses in the project area that could be exposed to traffic noise impacts by the project. A residential subdivision, a mobile home park, a hospital, two apartment complexes and a manor care home were identified as noise-sensitive uses potentially affected by the project.

A field noise investigation was conducted to quantify existing noise. TNM 2.5, the Federal Highway Administration's (FHWA) Traffic Noise Model (FHWA-DD-96-009), was used in this analysis to evaluate traffic noise for design year (year 2027) conditions. Traffic noise impacts are predicted to occur at noise-sensitive areas. Because traffic noise impacts have been identified, abatement must be considered. As stated in the Protocol, noise abatement is only considered for areas of frequent human usage that would benefit from a lowered noise level. As a matter of practice, exterior locations are considered areas of frequent human use if people visit them for at least one hour on a regular basis; therefore, impacts are only assessed in detail at locations of frequent human use.

### **Impacts**

With regard to California Environmental Quality Act (CEQA) requirements, the above traffic noise impacts are not considered significant. If the interchange project were constructed, improved traffic flow through the area would result in direct energy savings. This direct savings should offset the indirect energy cost of the site. There is, therefore, no need for additional energy studies.

### **Avoidance, Minimization and/or Mitigation Measures**

Preliminary noise abatement has been evaluated for preliminary feasibility and reasonableness at these use sites. Noise abatement is considered not reasonable at the commercial use sites. Noise abatement in the form of soundwalls have been evaluated for mobile homes, convalescent hospital, apartment complex, and a hospital. A preliminary noise abatement soundwall design is proposed, along with information to be used in assessing the overall feasibility and reasonableness of the noise abatement. Location S-1 shown in Appendix E did not meet the feasibility criteria for soundwalls and therefore no reasonableness analysis was performed. The final decision to include noise abatement such as soundwalls in the proposed project design will be made based on this information and on other pertinent information received during the public review process.

Soundwalls are proposed and being considered for the following locations:

- Station 123+60 to 124+60    Soundwall S-2 (approximately 2.4 m [8-ft] high)
- Station 125+30 to 129+15    Soundwall N-1 (approximately 3.1 m [10-ft] high)
- Station 129+10 to 129+30    Soundwall N-1 on shoulder edge (approximately 3.1 m [10 ft] high)

If during final design, conditions have substantially changed, noise abatement may not be necessary. The final decision of the noise abatement would be made on completion of the feasibility analysis, project design and the public involvement processes.

## **Biological Environment**

### **2.1.10 Natural Communities**

The surrounding natural communities are consistent with foothill woodlands and include such species as pines, oaks, and chaparral species.

### **Regulatory Setting**

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Wetlands and other waters are also discussed in this section of the document.

### **Affected Environment**

The project is located in the western slope of the Sierra Nevada in northeast central California at an elevation of approximately 2,600 feet above sea level within the Grass Valley USGS Topographic Quad, T16N R8E Section 23, Mount Diablo Base Meridian (MDBM).

The area has scattered development containing residential, senior and low-income housing, businesses and vacant lots throughout the project limits. The roadsides in Caltrans' R/W are heavily disturbed and primarily consist of non-native annual grassland and ruderal vegetation. In the commercially developed portion, the area is landscaped with ornamental plantings.

## **Habitats**

### ***Foothill Woodlands***

The habitat surrounding SR 20/49 is primarily foothill woodland, which is dominated by the drought-resistant foothill or grey pine (*Pinus sabiniana*), oak trees (*quercus sp.*) and chaparral species such as white manzanita (*Arctostaphylos*). The vacant lots are dominated by white manzanita, Himalayan blackberry, scrub oak, poison oak, and grey pines. Scrub jays, ground squirrels, quail, small ground-feeding birds, and cottontail rabbits inhabit this area.

Several native oaks are present in and near the right of way. They occur in scattered locations and varying density in the project area, with the majority along the right of way in between Joerschke Drive and SR 20/49.

## **2.1.11 Wetlands and Other Waters**

### **Regulatory Setting**

Wetlands and waters at the State level are regulated primarily by the Department of Fish and Game (CDFG) and the Regional Water Quality Control Boards (RWQCB). Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify DFG before beginning construction. If CDFG determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. The top of the stream or lake banks or the outer edge of riparian vegetation, whichever is wider, usually defines CDFG jurisdictional limits. Wetlands under jurisdiction of the federal Army Corps of Engineers (USACE) may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFG.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The RWQCBs also issue water quality certifications in compliance with Section 401 of the Clean Water Act. Please see the Water Quality section for additional details.

## **Affected Environment**

Westbound along SR 20/49 between Brunswick and Dorsey Drive there are roadside drainages that have developed wetlands. The dominant plant species in the wetland area are cattails (*Typha latifolia*), water cress (*Rorippa nasturtium aquatica*), Himalayan blackberry (*Rubus discolor*), curly dock (*Rumex crispus*), water plantain (*Alisma plantago aquatica*), and arroyo willow (*Salix lasiolepis*). Part of the wetland area has developed by the build-up of excess water from the Nevada County Irrigation District's culvert that flows underneath the highway. The other section of wetlands appears to be fed from a combination of sprinklers and an extremely high water table. According to local residents, this area is known as Spring Hill (previously Olympia Lake) and is historically wet, but was drained back in the 1960s to build the current highway and buildings in the surrounding area. The U.S. Army Corps of Engineers (USACE) has taken jurisdiction of the section of wetlands that is not considered roadside drainage. The wetland area itself has little aquatic life. The eastbound area between Brunswick and Dorsey Drive also contains a culvert that flows under SR 20/49. The overflow for this culvert creates ponding of water and the roadside ditch that leads to the cement-lined culvert. These wetlands are not in the project vicinity and should not be affected in any way. No permits are needed for the eastbound wetland. Wetland delineation and mapping can be found in the Natural Environment Study.

## **Impacts**

Work in Waters of the U.S including wetlands is proposed and there will be impacts to approximately 15 oak trees. The proposed project will not result in any significant biological impacts. No State or Federal endangered or threatened species; critical habitat, or sensitive species would be impacted by the project.

The wetland delineation determined that 0.057 of an acre (230m<sup>2</sup>) will be impacted. The total fill into the waters will be approximately 115 m<sup>3</sup>. A Nationwide permit will be obtained from the Army Corps of Engineers. Compensatory mitigation will be required by moving the drainage ditch back (if possible) 1 to 5 meters (3-15 ft). A new wetland will be created in kind as mitigation. A 401 certification will also be needed from the Central Valley Regional Water Quality Control Board (CVRWQCB).

A CDFG 1601 Streambed Alteration Agreement will not be needed. No further contact is needed with the CDFG unless a California listed threatened or endangered plant species is detected during the spring bloom survey.

The wetlands within the eastbound area between Brunswick and Dorsey Drive that contains the culvert flows under SR 20/49 are not in the project vicinity and should not be affected in any way.

### **Avoidance, Minimization and/or Mitigation Measures**

The wetlands that are not considered roadside drainage will be mitigated by recreating the wetlands alongside the new auxiliary lane or at another site near the project boundaries. There is no riparian vegetation associated with the jurisdictional drainage.

The wetland mitigation will be approved per USACE and CVRWQCB but will most likely be a 1:1 replacement in kind for onsite mitigation. The proposed wetland replacement mitigation measures minimize the impacts to waters of the U.S. In addition, construction will be done during the summer months when drainages are dry. Standard Best Management Practices (BMP) will be employed prior to any earthmoving work, including work in drainage areas. All conditions listed in the permits must be followed.

Any additional mitigation that cannot be recreated on-site will be mitigated at a 1:1 ratio at an offsite mitigation area with higher functions and values than the current wetlands provide. Current CDFG guidelines recommend planting 5 trees for every tree greater than 1-inch

diameter at breast height (dbh) removed. Senate Concurrent Resolution 17 states that State agencies should make every effort to avoid impacting oak woodlands.

## 2.1.12 Plant Species

### Regulatory Setting

The U.S. Fish and Wildlife Service (USFWS) and CDFG share regulatory responsibility for the protection of special-status plant species. “Special-status” species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are afforded varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA).

The regulatory requirements for FESA can be found at United States Code 16 (USC), Section 1531, et. seq. See also 50 CFR Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et. seq. Caltrans projects are also subject to the Native Plant Protection Act, found at Fish and Game Code, Section 1900-1913, and CEQA, Public Resources Code, Sections 2100-21177.

### Affected Environment

This section provides information on sensitive plant species that are known or may occur in the project vicinity.

#### Stebbins’s Morning-Glory (*Calystegia stebbinsii*)

The California Morning Glory is listed as a federal and state endangered species and also on the California Native Plant Society (CNPS) list 1B. It is a perennial herb, which flowers in May to June and is found only in dry chaparral areas. It is endemic to the Pine Hill formation in El Dorado and Nevada but there have been fewer than 15 occurrences in Placer County.

Presence on the Site:

Low. There are no known occurrences within the project vicinity; however, a survey will be conducted during the blooming season to verify their presence or absence.

Scadden Flat Checkerbloom (*Sidalcea stipularis*)

The Scadden Flat Checkerbloom is a California endangered species and a federal species of concern as well as a CNPS List 1B. The Checkerbloom is a perennial herb found in marsh and wetland areas and it blooms in July and August. Endemic to Scadden Flat near Grass Valley, it has not been found in any other place (Four Seasons: 20-22 1974). The Scadden Marsh is a restricted open area kept wet by a perennial spring and surrounded by a yellow pine forest characteristic of the lowest border of the Transition Zone on the west slope of the Sierra Nevada.

Presence on the Site

Low. Although the project does impact a seasonal wetland, it was not found to occur in this area.

**Sanborn's Onion** (*Allium sanborni. sanborni*)

The Sanborn's onion is on the CNPS list 1B. It is found in Chaparral, Foothill Woodlands and Yellow Pine Forest, occurs in gravelly soil on serpentine substrate and is native to California. In western Grass Valley there is a population of Sanborn's onions that were dug up before development and replanted in a 750 square foot area, in the proximity of the Dorsey Drive project. This area is now protected from development.

Presence on the Site

Low. Although the population of Sanborn's Onion is in close proximity, it is not documented within the project vicinity. During the blooming season, a rare plant verification survey will be conducted.

### **Valley Elderberry Longhorn Beetle** (*Desmocerus californicus dimorphus*)

Valley elderberry longhorn beetle uses elderberry (*Sambucus* sp.) exclusively as its host plant. It prefers streamside habitats below 915 m in elevation throughout the Central Valley and Western Foothills.

#### **Presence on the Project Site**

The project will not impact the beetle because no elderberry is growing within the project limits.

#### **Impacts**

The Build Alternative could result in impacts to up to 15 native oaks which are present and near the project area.

No further contact with CDFG is needed unless a California listed threatened or endangered plant species is detected during the spring bloom survey. If detected, consultation with the CDFG will be necessary.

#### **Avoidance, Minimization and/or Mitigation Measures**

Current CDFG guidelines recommend planting 5 trees for every tree greater than 1-inch dbh removed. Senate Concurrent Resolution 17 states that State agencies should make every effort to avoid impacting oak woodlands. The City of Grass Valley currently maintains a Heritage Tree Ordinance for protection of outstanding individual trees. The suggested replacement ratio for oaks over 11” dbh is 1:1 (one tree per one inch dbh). If no area exists within the project area for replanting, a location will be found in Nevada County.

To further decrease impacts, surveys for above listed plants will be done prior to construction season during the known blooming periods.

### **2.1.13 Animal Species**

#### **Regulatory Setting**

Special-status species and their habitats were selected for analysis based on information from CDFG, USFWS, and field surveys conducted for the proposed action.

State laws and regulations pertaining to wildlife include the following:

- California Environmental Quality Act
- Sections 1601 – 1603 of the Fish and Game Code
- Section 4150 and 4152 of the Fish and Game Code

#### **Affected Environment**

Special emphasis through research and surveys was placed on the following special-status and protected animal species that were identified as having the potential to occur in the project area.

### **2.1.14 Listed animal species, or species with special consideration**

#### **Northern Goshawk** (*Accipiter gentilis*)

The Northern Goshawk is a USFWS and CDFG species of special concern. Northern Goshawks are birds of mature montane coniferous forests. Nests and roosts are found in older stands of Red and Douglas fir; and Jeffery, Ponderosa, and Lodgepole pines. It prefers stands of intermediate canopy coverage and nests between 18 to 75 feet above ground. Breeding occurs from mid-March to early September with a peak from early May to mid July.

#### **Presence on the Project Site**

Although suitable nesting habitat exists in the project area, no accipiter individuals or nests were detected within the general vicinity of the project area during surveys conducted during the 2000 season.

#### **California Horned Lizard** (*Phrynosoma coronatum frontale*)

The California Horned Lizard is a California threatened species. It seems to occur in several habitat types ranging from areas with an exposed gravel or sandy substrate containing

scattered shrubs, to clearings in riparian woodlands, and even in dry uniform chamise chaparral or annual grassland with scattered perennial seepweed. They have been observed in the Grass Valley area frequenting a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Horned lizards prefer open areas for sunning, bushes for cover, patches of loose soil for burial and an abundant supply of ants and other insects.

### **Presence on the Site:**

Low. The landscape adjacent to Dorsey Drive (the vacant, undeveloped lot) may provide foraging habitat for the California Horned Lizard. Surveys were conducted and there were no California Horned Lizards observed at that time.

### **Impacts**

#### *Northern Goshawk*

No potential accipiter nesting or roosting trees will be removed during the course of the project.

#### *California Horned Lizard*

The project design with the greatest footprint, the full diamond interchange, will not have a significant negative affect upon the environment in this area.

### **Raptors**

Raptors are defined as member of the order Falconiformes (vultures, eagles, hawks, and falcons) and order Strigiformes (owls). It is assumed that non-nesting adult birds would avoid the project area during construction. However, raptors and their nests are protected by the Fish and Game Code of California (§3503.5, 3511, and 3513). The code states that:

“It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird...”

Raptors are also protected by the Migratory Bird Treaty Act, which is discussed below.

### *Nesting Migratory Birds*

The Migratory Bird Treaty Act of 1918 protects migratory birds and their nests and eggs. Most native North American birds are contained on the list of birds protected by the act. Many of these species nest in open woodlands in Nevada County not unlike the project area. The Migratory Bird Treaty Act prohibits the "...take, capture, [or] kill...at any time, or in any manner, [of] any migratory bird...or any part, nest, or egg of any such bird." Accidental take during tree removal would be a violation of the act.

### **Avoidance, Minimization and/or Mitigation Measures**

In order to prevent impacts to migratory birds, trees should be removed between the months of September and February. If this is not feasible, surveys just prior to construction will be conducted to ensure that there are no nesting birds in the vicinity.

### **Construction Impacts**

Temporary construction impacts to noise, air quality, traffic, and drainages are expected.

*Noise:* Noise generated during construction will be controlled as the contractor conforms to the provisions of 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 recommended muffler.

*Air Quality:* During construction, the proposed project will generate air pollutants. The exhaust from construction equipment contains hydrocarbons, oxides of nitrogen, carbon monoxide, suspended particulate matter, and odors. However, the largest percentage of

pollutants would be windblown dust (fugitive dust) generated during excavation, grading, hauling, and various other activities. The impacts from these activities would vary each day as construction progresses and according to the proximity of the receptors to the construction activities. Dust and odors could annoy nearby businesses and residents.

Caltrans' Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction. The provisions of Caltrans' Standard Specifications, Section 7-1.01F, "Air Pollution Control" and Section 10 "Dust Control" require the contractor to comply with all Northern Sierra Air Quality Management District (AQMD) and other local jurisdictions' rules, regulations, ordinances, and statutes.

*Traffic:* Traffic delays will result from construction. To reduce impacts, a traffic management plan will be implemented during construction.

*Water Quality/Drainages:* Work within drainages should occur under dry conditions or the use of a temporary water diversion or sediment basin will be employed. Temporary erosion control measures and water quality measures including but not limited to fencing, straw, straw rolls will be placed prior to any ground disturbing activities. These control measures will be placed down slope of construction activities and above streams or wetlands and will be maintained in functional condition until ground disturbance activities are completed and/or permanent erosion control measures are in place.

*Biological Resources:* To prevent accidental impacts to biological resources that are outside the work area, Environmentally Sensitive Areas (ESAs) will be delineated in the design plans (Appendix D). The boundary of the work area and ESAs indicated on the project plans will be established as the first order of work prior to clearing, grubbing, or grading activities. The ESAs will be identified at the project site with the use of temporary high visibility fencing and maintained until the completion of work. The ESAs are to be off limits to any work including vehicle parking, equipment storage, grading, trenching, vegetation alteration, fill, and stockpiling of any material.

*Hazardous Waste:* Unknown hazardous materials discovered during construction activities may delay construction and project delivery. Hazardous waste that is unknown until exposed during construction will require sampling and testing prior to removal from the site and disposal. Should any hazardous waste be discovered during the course of work, all work will stop and all materials will be disposed of in accordance with all laws, rules, and regulations governing hazardous waste including naturally occurring asbestos.

## **Cumulative Impacts**

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of the proposed project. This cumulative impact assessment examines the collective impacts posed by individual projects. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from the construction of new public services in the project area. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

CEQA Guidelines, Section 15130 describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts, under CEQA, can be found in Section 15355 of the CEQA Guidelines. A definition of cumulative impacts, under NEPA, can be found in 40 CFR, Section 1508.7 of the CEQ Regulations.

## **Growth**

In Grass Valley, questions of growth are frequently tied to proposed developments' impacts on traffic congestion. As a project intended to *relieve* congestion, the Dorsey Drive interchange may be seen as creating opportunities for new development. In fact, this interchange is included in a list of capital improvement projects intended to provide capacity for all new development in the area (see *Loma Rica Ranch Annexation Final EIR*, October 1998).

The proposed development with the greatest likelihood of benefiting from the proposed project (particularly in conjunction with the planned extension of Dorsey Drive beyond Sutton Way) is the Loma Rica Ranch Special Development Area. Loma Rica Ranch is not “unplanned” development. A Specific Plan has been developed for the area, and will be subject to environmental review under CEQA. The cumulative effect of the proposed project in conjunction with other past, present, and planned projects would be to further the City’s land use goals, objectives, and policies.

# **Chapter 3**      **Comments and Coordination**

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## **COORDINATION**

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process to determine the scope of environmental documentation, the level of analysis, potential impacts and mitigation measures, and related environmental requirements. This chapter summarizes the results of Caltrans' efforts to fully identify, address and resolve project-related issues through early and continuing coordination. During the preparation of this study, several agencies and community organizations were contacted. A list of contacts is included below.

### **Coordination and Consultation for Biology**

California Department of Fish and Game  
U.S. Fish and Wildlife Service  
Nevada County Historical Society

### **Coordination and Consultation for Community Impacts**

Nevada County Planning and Community Development Department

### **Coordination and Consultation for Cultural Resources**

Nevada County Historical Society	Placer County Museum
Native American Heritage Commission	Placer County Historical Society
Empire Mine State Historic Park	Malakoff Diggings State Park

Local Native American representatives included:

Colfax – Todd Valley Consolidated Tribe	Todd Valley Miwok-Maidu Cultural
T'Si-akim Maidu	Foundation
Shingle Springs Band of Miwok Indians	
United Urban Indian Community of the Auburn Rancheria	

## Public Involvement

A public scoping workshop was held on October 27, 2005 and publicly noticed in the Grass Valley Union on October 21, 2005. Another public meeting is scheduled for March 21, 2006 at the Grass Valley Veterans Building during the public circulation of the environmental document to discuss community concerns, the decision making process, the schedule, project design features, impacts and mitigation measures.



State of California • Department of Transportation

# PUBLIC NOTICE

## DORSEY DRIVE INTERCHANGE IMPROVEMENTS ON STATE ROUTE 20 IN NEVADA COUNTY

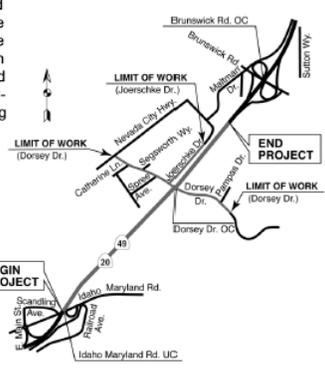
**THE PROJECT**

The California Department of Transportation (Caltrans) and the Federal Highway Administration, in cooperation with the Nevada County Transportation Commission (NCTC) propose improvements at the existing Dorsey Drive overcrossing on State Route 20/49 in Nevada County. Improvements would modify the existing overcrossing to a tight-diamond interchange. This would include widening or replacing the existing 2-lane structure with a 5-lane structure, constructing on- and off-ramps with auxiliary lanes between existing ramps and these proposed ramps, and the realignment of Joerschke Drive.

**WORKSHOP**

A public "drop-in" open house is planned to allow area residents, public officials, other interested groups and department staff to exchange information about the project.

<b>When</b>	<b>Where</b>
Thursday, Oct. 27th 4 p.m. - 7 p.m.	City of Grass Valley Hullender Room 125 E. Main Street Grass Valley, CA 95959



**MAP AND PLANS**

Preliminary maps, plans and the project schedule of the proposed work will be displayed and information concerning costs and environmental issues will be available at the open house. Caltrans and NCTC staff will be present to talk with individuals and answer questions and comments.

Caltrans is in the process of conducting environmental studies. This public information meeting is being offered to give you an opportunity to review and comment on design features and any proposed improvements. Your input may influence the proposed scope of work. There will be no formal presentation and individuals are invited to drop by any time during this event.

**SPECIAL ACCOMMODATIONS**

For individuals with disabilities, we can provide services such as sign language interpreting, real-time captioning, note-takers, reading or writing assistance, or training/meeting materials in Braille, large print, audiocassette or computer disk. To obtain such services or copies in one of these alternative formats, please contact: Mark Dinger, Public Information Officer, Caltrans - District 3, 703 B Street, Marysville, CA 95901, (530) 741-4572 (voice phone) or (530) 741-4509 (TTY).

**COMMENTS**

Please submit your written comments to the Caltrans Office of Environmental Management-Sacramento, Attention: Japtej Gill, 2389 Gateway Oaks, Suite 100, Sacramento, CA 95833 no later than **November 10, 2005**. Your comments will be included as part of the open house record.

Jody Jones, Caltrans District 3 Director  
California Department of Transportation  
P.O. Box 911, Marysville, CA 95901



Nevada County  
Transportation Commission

Grass Valley • Nevada City      Nevada County • Truckee

## Chapter 4 List of Preparers

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The following Caltrans North Region staff prepared this Initial Study:

Aaron McKeon, Associate Environmental Planner; B.A., History, University of Rochester; Master's in Regional Planning, Cornell University; 6 years with Caltrans performing community impact assessments.

Amy Kennedy, Associate Biologist, B.A., Humboldt State University; 5 years of biological experience with the Department, 2 years fisheries experience with USFWS.

Gregoria Ponce Garcia, Associate Environmental Planner. B.S., Environmental Biology/Natural Resources Management, University of California- Davis; 11 years of varied experience in Environmental Compliance.

Jim Brake, PE, Associate Transportation Engineer, BSCE Arizona State University, 20+ Years of Traffic experience.

Maria Alicia Beyer, Hazardous Waste Coordinator, MS, University of Texas at El Paso; BS Civil Engineering, Chihuahua State University, Mexico; 12 years of experience in Urban Development and Construction; 15 years of experience in hazardous waste studies.

Marsha Freese, Landscape Associate. B.L.A. Landscape Architecture, University of Oregon; B.A. Geography, University of Alaska-Fairbanks; 5 years experience in writing visual impacts assessments.

Erick Wulf, Associate Environmental Planner, Archaeology; BA and MA in Anthropology with an emphasis on California Archaeology, California State University, Sacramento; 16 years experience in California Archaeology

Ben Tam, Transportation Engineer, B.S., Civil Engineering San Jose State University; 15 years Caltrans experience, 7 years noise experience.

Sharon Tang, Air/Noise Specialist, A.A. Sacramento City College, Sacramento, CA; Five years experience in preparing and reviewing Air/Noise Studies for environmental documents.

Anmarie Medin, Associate Environmental Planner – Sonoma State University, Archaeologist. Professionally Qualified Staff. PI in Historical Archaeology and Co-PI in Prehistoric Archaeology. M.A. in Cultural Resources Management. 15 years experience, 5 with Caltrans.

Michael L. DeWall, Transportation Engineer, P.E. (Civil); B.S. Civil Engineer, California State University, Chico; M.S. Engineering Management, Air Force Institute of Technology; 23 years of engineering experience in construction management, design, public works, and facility operations and maintenance; with Caltrans Hydraulics Branch for eight years.

Nancy Bruton, PE, Transportation Engineer. B.S., Civil Engineering, CSU Sacramento; 14 years experience in civil engineering.

Samuel Jordan, PE, Transportation Engineer. B.S., Civil Engineering, CSU Sacramento; 16 years experience in civil engineering.

# **Chapter 5**      Distribution List

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## Agencies

### ***Local:***

County of Nevada Community Development Department  
County of Nevada  
    Director of Community Development  
    County Engineer  
    Emergency Services  
    Road Division Superintendent  
    Transportation and Sanitation

Grass Valley City Chamber of Commerce  
Nevada County Transportation Commission

### ***State:***

California Department of Fish and Game  
Central Valley Regional Water Quality Control Board  
California Highway Patrol

### ***Libraries:***

Nevada County Library, Nevada City  
Nevada County Library, Grass Valley Branch

### ***Other:***

Congressional Representative, John T. Doolittle  
Senate Representative, Sam Aanestad  
Assembly Representative, Rick Keene  
Nevada County Commission Member, Patti Ingram