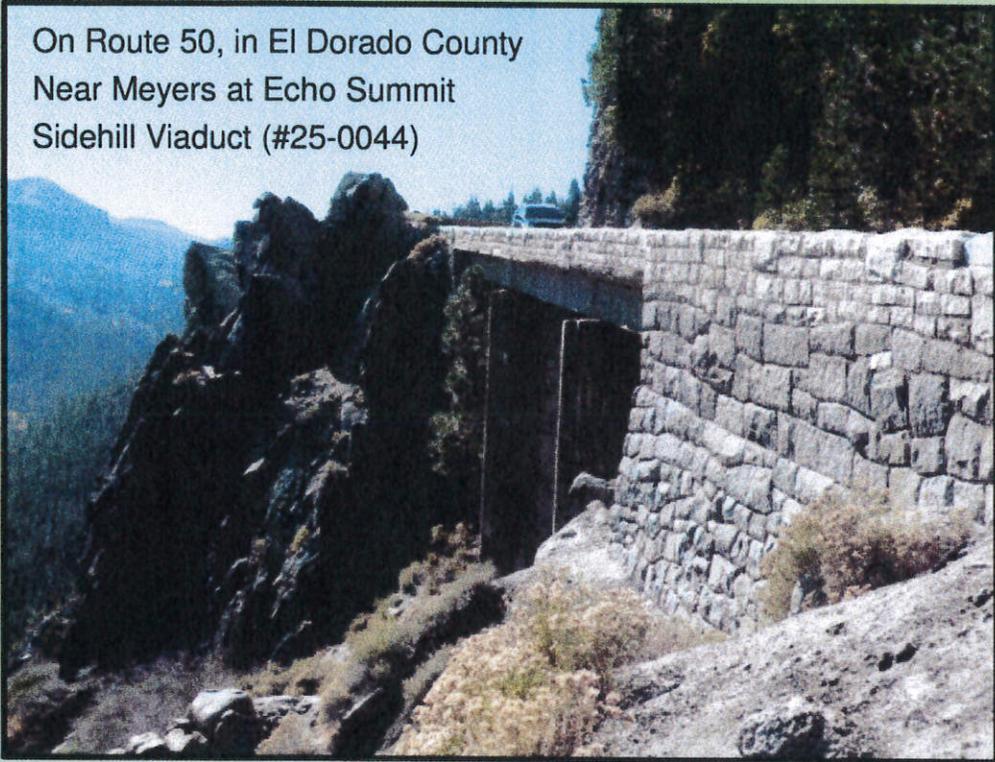


DRAFT PROJECT REPORT BRIDGE REPLACEMENT



I have reviewed the right of way information contained in this Draft Project Report and the R/W Data Sheet attached hereto, and find the data to be complete, and accurate:

John Ballantyne 10-4-16
JOHN BALLANTYNE Date
Chief, North Region Right of Way

Approval
Recommended:

Clark A. Peri 10-3-16
CLARK A. PERI Date
Project Manager

Approved By:

Amarjeet S. Benipal 10/4/16
For AMARJEET S. BENIPAL Date
District Director, District 3

This project report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

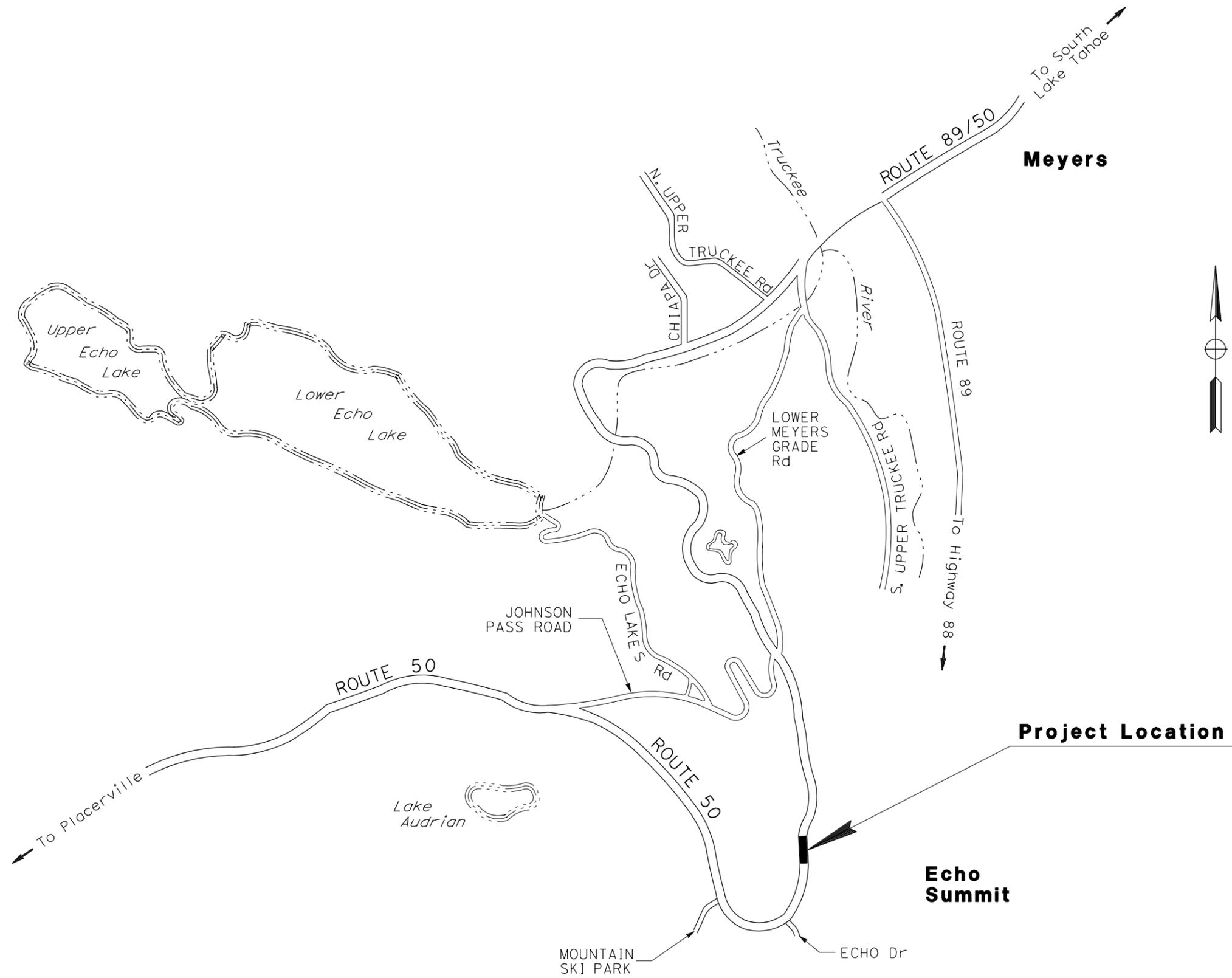


10-3-2016

REGISTERED CIVIL ENGINEER

DATE





Meyers

Project Location

Echo Summit

NO SCALE

Vicinity Map

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1. INTRODUCTION

Project Description: This project proposes to replace the Echo Summit Sidehill Viaduct (Bridge # 25-0044) in El Dorado County, 7 miles west of South Lake Tahoe along United States Highway 50 (US 50). See *Attachment A*, Title Sheet/Location Map and *Attachment B*, Layouts.

Project Description

Project Limits	03-ED-50 PM 67.3					
Number of Alternatives	4 (Including No-Build)					
	Alternative 1		Alternative 2		Alternative 3	
	Current Cost Estimate:	Escalated Cost Estimate:	Current Cost Estimate:	Escalated Cost Estimate:	Current Cost Estimate:	Escalated Cost Estimate:
Capital Outlay Support	\$4,618,000					
Capital Outlay Construction	\$6,000,000	\$6,450,000	\$7,510,000	\$8,050,000	\$7,615,000	\$8,158,000
Capital Outlay Right-of-Way	\$55,000	\$59,500	\$55,000	\$59,500	\$55,000	\$59,500
Funding Source	SHOPP; 20.xx.201.110 Bridge Rehabilitation Program					
Funding Year	2017/2018 Fiscal Year					
Type of Facility	Bridge; 2-lane Conventional Highway					
Number of Structures	1					
SHOPP Project Output	1 Bridge					
Environmental Determination or Document	Initial Study/Mitigated Negative Declaration (IS/MND)					
Legal Description	"In El Dorado County Near Meyers at Echo Summit Viaduct"					
Project Development Category	4B					

See the Preliminary Cost Estimate, *Attachment C*, for specific work items included in this project.

2. RECOMMENDATION

California Department of Transportation (Department) recommends approval to publicly circulate the Draft Environmental Document (DED) and to proceed to the public outreach phase of the project development process, based on the viable alternatives developed.

3. BACKGROUND

3A. Project History

Echo Summit Viaduct, constructed in 1939, is a 3-span reinforced concrete girder structure 112.8-ft in length and founded on bedrock. The bridge rail consists of aesthetic unreinforced masonry. This structure had extensive rehabilitation in 1974 and again in 1986 to repair unsound concrete. This bridge replacement project was initiated on July 19, 2012. The Project Scope Summary Report (PSSR) was signed on June 20, 2013.

3B. Community Interaction

Caltrans is working with the community, interested local parties, and agencies during the development of this project. Caltrans issued a news release in May 2015, to announce the public outreach meeting. This public informational meeting was held on May 21, 2015 in Meyers at the California Conservation Corps offices to inform the public of the upcoming project studies. Prior to this meeting, a public outreach meeting was held in February 2015 at the City of South Lake Tahoe City Council Chambers.

These meetings provided interested individuals and agencies an opportunity to review the project maps and information displays and to comment on the scope of the project. These meetings also helped identify the concerns of the public. Detours, road closures, and traffic delays were major concerns of the public and businesses in the area.

A public meeting will be held during the circulation of the Initial Study/Mitigated Negative Declaration (IS/MND) for this Bridge Replacement project.

3C. Existing Facility

US 50 is a major west-east connector that begins at Interstate 80 (I-80) in West Sacramento and traverses portions of Yolo, Sacramento, and El Dorado Counties before passing into the State of Nevada on its way to Ocean City, Maryland. The California portion of US 50 falls entirely within District 3 and ranges in function from a multilane freeway serving interregional, regional, commercial, commuter, and recreational traffic to a conventional highway serving recreational, long-distance commuter, and resort community traffic. It is an Officially Designated Scenic Highway from Placerville to South Lake Tahoe.

At the project location, US 50 is a two-lane conventional highway with 11-foot lanes in each direction and one-foot shoulders. Located 7 miles west of South Lake Tahoe (SLT), the Echo Summit Sidehill Viaduct and the adjacent roadway are built into bedrock atop a steep slope. The bridge was built in 1939 with reinforced concrete girders, reinforced concrete, reinforced masonry, seat type abutments in bedrock, and a rubble masonry bridge rail. The existing bridge has a total width of 29 feet (net width of 24 feet).

US 50 is characterized by the geometric information in the table below.

Roadway Geometric Information

	Minimum Curve Radius	Through Traffic Lanes			Paved Shoulder Width	
		No. of Lanes	Lane Width	Type (AC, PCC, or AC over PCC)	Left	Right
Existing	535-ft	2	11 ft	AC over PCC	1 ft	1 ft
Proposed – Alt. 1	535-ft	2	12 ft	PCC	1 ft	1 ft
Proposed – Alt 2 & Alt. 3	535-ft	2	12 ft	PCC	1 ft	5.75 ft

The following table summarizes the structure information for the Echo Summit Sidehill Viaduct.

Echo Summit Sidehill Viaduct (#24-0044)

Structure Name (Alt.No.)	Width Between Curbs (Left EP to Right EP)			Shoulder Width			Replace Bridge Railings (Y/N)	Vertical Clearance (Exist/Std/Proposed)	Work Identified in STRAIN (Y/N)	Replace Bridge Approach Rail and Approach Slab (Y/N)
	Exist	Std	Prop.	Exist	Std	Prop				
Echo Summit Sidehill Viaduct (Alt. 1)	24'	40'	26'	1'	8'	1'	Y	n/a	Y	Y
Echo Summit Sidehill Viaduct (Alt. 2 & 3)		40'	30.75'		8'	1'-5.75'	Y	n/a	Y	Y

With a recent safety project completed in 2011, EA: 03-1E14U4, seven masonry rock wall parapets were installed/upgraded along 1.2 miles of Highway 50, with the Echo Summit Viaduct located within the project limits. Along with the improvements to the rock walls, the damaged metal beam guardrail (MBGR) was repaired and the roadway resurfaced with a 0.17-ft overlay of warm mix hot mix asphalt (HMA-W).

There are two pullouts within this project location large enough to accommodate passenger and maintenance vehicles. Caltrans sand and salt maintenance yard is located 0.55 miles to the west at PM 66.5.

Easements on the National Forest Service land make up the highway right of way. All work will be performed in the existing right of way, which is an easement (150-ft left and right of centerline) through El Dorado National Forest (USFS).

The following information was obtained from the Bridge Inspection Records Information System (BIRIS), and is based on the inspections performed on October 20, 2010: “The overhang area under the bridge rail is heavily scaled with numerous cracks and spalls with exposed corroded reinforcement material throughout. The girders exhibit random and traverse cracking on their bottom flanges throughout the structure. The girders also exhibit bearing-area cracking and spalling at bearing locations, primarily at the pier walls. The diaphragms between the girders, especially the end

diaphragms over the piers, are heavily scaled and exhibit random cracking. The pier walls are in poor condition. The previous areas of rehabilitation featuring air blown mortar have all begun to heavily scale, delaminate, and spall, and rust-evident corrosion of the reinforcement is obvious throughout. The downhill right noses of the pier walls both exhibit heavy spalling, exposing corroded reinforcement material over lengths of up to ten feet.” The structure was again inspected on October 13, 2014 and the Bridge Inspection Report (BIR) states: “This structure has a significant history of scaling, cracking, delaminations, and fractures of the reinforced concrete superstructure and substructure caused by freeze thaw cycles and deicing salt exposure.” The recommendation is to rehabilitate or replace the structure. (See below under subheading “Need.”)

4. PURPOSE AND NEED STATEMENT

Purpose:

The purpose of this project is to replace the Echo Summit Sidehill Viaduct (Br. #25-0044) in El Dorado County on US 50.

Need:

Due to its poor condition and ongoing problems including high corrosive chloride contents in the concrete deck surface and bridge superstructure and substructure, concrete spalling, and severe transverse and longitudinal cracks in the deck, this bridge is in need of replacement. This structure location has been identified on the Structures Maintenance & Investigations (SM&I) list of outstanding work. This structure has been recommended for rehabilitation or replacement in the SM&I’s Structure Replacement and Improvement Needs (STRAIN) report. See Bridge Inspection Records Information System (BIRIS), dated October 13, 2014, **Attachment D**, for more information.

4A. Problem, Deficiencies, Justification

This bridge has been identified in BIRIS reporting as needing a major rehabilitation or replacement, with the most current report recommending replacement over rehabilitation. The structure has a significant history of scaling, cracking, delaminating, and of fractures in the superstructure and substructure caused by freeze/thaw cycles and deicing salt exposure.

4B. Regional and System Planning

Regional Planning: The 2015-2035 Regional Transportation Improvement Plan (RTIP, September 3, 2015), prepared by El Dorado County Transportation Commission (EDCTC) states that “investing in the maintenance of the existing infrastructure is a focus of road projects during the planning period. Roadways, bridges, and the associated infrastructure have a limited useful life, and funding must be available to maintain them.” The objectives that are identified in the RTIP are consistent with the needs of the project.

System Planning: The District System Management and Development Plan (DSMDP) (January 25, 2013), prepared by Caltrans District 3 Planning, states that much of the highway system was built years ago and is reaching the end of its expected useful life. Reconstruction and rehabilitation projects

will be necessary to keep the existing facilities operational. The proposed project is consistent with the DSMDP. This project is also listed in the Transportation System Development Program (TSDP), a component of the DSMDP. The TSDP identifies the specific State Highway projects that are needed to meet the goals of the DSMDP.

State Planning: The proposed scope is consistent with the US 50 Transportation Concept Report and Corridor System Management Plan (TCR/CSMP, June 27, 2014, discussion of Segment 19). The ultimate concept facility for Route 50 is a two lane conventional highway with Intelligent Transportation Systems (ITS), Integrated Corridor Management (ICM), and bike lanes. This segment is currently operating at a Level of Service (LOS) E. The ultimate facility concept for this segment is a LOS D.

The following projects are within or near the project limits:

- 03-0H410, Repair existing Automatic Vehicle Classification (AVC) and Install New AVCs (Programmed in the 2016 SHOPP; delivered in the 2019 fiscal year);
- 03-4F840, Meyers Intersection Improvement (Roundabout) (Programmed in the 2016 SHOPP; delivered in the 2019 fiscal year).

4C. Traffic

Traffic Data

Office of Travel Forecasting and Modeling provided the current and forecasted traffic volumes. Existing (2014) annual average daily traffic (AADT), peak hour volumes (PHV), and project traffic volumes for 2020, 2030, and 2040 are shown in the table below. The highway has a directional split of 65% and 4% truck traffic.

Traffic Data				
Year		Annual ADT	Peak Hour	Traffic Index
Base Year	2014	8,100	1,650	NA
Construction Year	2020	8,970	1,830	NA
10-Year	2030	10,400	2,120	8.5
20-Year	2040	11,900	2,430	9.5

Collision Data

Recent three-year collision rates were obtained from the Traffic Accident Surveillance and Analysis System (TASAS), Table B provided by the Traffic Safety Office.

There were a total of eight (8) collisions for a 3 year period from (1/1/2011 to 12/31/2013) between PM 67.2/67.4. Seven (7) of the eight (8) collisions were property damage only collisions.

Five (5) of the eight (8) collisions occurred when vehicles heading in the EB direction, failed to negotiate the curve, crossed into WB lane and collided with WB vehicle(s). Of these five collisions: one was speeding at 55+ mph; two were in snow/ice conditions; one was when the driver lost consciousness from undetermined medical conditions; and one was when a motorcycle rider crossed into opposing traffic for unknown reasons and collided head-on with a WB vehicle. The motorcycle rider sustained fatal injuries.

The other three (3) collisions occurred in the WB direction: one when falling rocks struck a vehicle; one when a vehicle came to a complete stop due to heavy traffic ahead and got rear ended by another vehicle approaching at 45 mph; and one when a driver at 50 mph, failed to negotiate the curve, veered right and struck the embankment.

This project should have a positive impact on the collision rates since the current 11-foot non-standard roadway lane widths will be increased to the 12-foot standard lane widths.

Collision Data

Location	# of Collisions			Actual Collision Rate ¹			Statewide Average Collision Rate ¹		
	Fatal	Fatal + Injury	Total	Fatal	Fatal + Injury	Total	Fatal	Fatal + Injury	Total
ED-50 PM 67.2-67.4 1/1/11 to 12/31/13	1	1	8	0.550	0.55	4.40	0.032	0.73	1.46

¹Per million vehicle miles

5. ALTERNATIVES

5A. Viable Alternatives

Alternative 1 – Replace with a 26-ft Wide Bridge (overall width – 29.5-ft) and Construct Wing Walls:

Remove the existing 24-ft bridge (between barriers) and replace it with a 26-ft (between barriers) wide bridge using Accelerated Bridge Construction (ABC) Method. This includes widening of 1-ft on each side of the bridge, in order to achieve the 12-ft lane width and 1-ft shoulders. Wing walls will be constructed at the approach and departure of the bridge and connect to the existing retaining walls. The location of the existing centerline will remain unchanged. The original profile and grade of US 50 will remain the same. See **Attachment E**, Typical Cross Sections.

Accelerated Bridge Construction, (ABC), Method is a method of construction that uses precast (PC) or prefabricated members, such as PC girders, steel girders, PC deck, PC columns, PC bent cap, and PC abutments. These elements are then assembled on the job site. This method reduces construction time and traffic delay. For this proposed project alternative, the ABC method will be applied to the superstructure only.

The bridge will be rebuilt with one-lane reversing traffic control and 10-days full closure during demolition and replacement using pre-cast elements. The construction will take approximately 117-

152 working days to complete. Construction work will occur over two (2) separate construction seasons. The foundation work will be completed during the first season and the superstructure work during the second season. US 50 will be fully closed for 10 days in the second season. Once a preferred alternative is identified, Lane Closure Charts (LCC) will be developed based on the traffic volumes during the peak traffic and non-peak traffic seasons. The LCC will show the hours when one-lane closure with reverse traffic control may occur on US 50.

Before and after the road closure, the contractor will be using the time for preparatory, tie-in and clean-up work during the construction of the abutments. This alternative will utilize precast/prestressed (PC/PS) girders.

Alternative 2 – Replace with a 30.75-ft Wide Bridge (overall width – 34.25-ft) and Construct Retaining Wall:

Remove the existing 24-ft bridge (between barriers) and replace it with a 30.75-ft (between barriers) wide bridge using Accelerated Bridge Construction (ABC) Method. The road will be demolished and rebuilt with one-lane traffic control and two 5-day closures or one 10-day closure during the demolition and replacement using pre-cast elements. There will be two (2) 12-ft. lanes with a 5.75-ft shoulder on right side and 1-ft shoulder on left side. The eastbound widening by 5.75-ft will result from the need to build enough width during a first stage to have adequate temporary width to accommodate traffic on one lane during second-stage demolition and westbound construction of the new bridge. A retaining wall will be constructed to support the wider bridge. The construction will take approximately 245-268 working days to complete. Construction will occur over two (2) separate construction seasons. The plan is to complete the foundation work during the first season and the superstructure work during the second season. The original profile and grade of US 50 will remain the same.

US 50 will be fully closed for two 5-day closures or one 10-day closure, during the second season for key construction operations such as the delivery and erection of precast girders. The LCC will show the hours when one-lane closure with reverse traffic control may occur on US 50.

Alternative 3 – Replace with a 30.75-ft Wide Bridge (overall width – 34.25-ft) and Construct Retaining Wall:

Remove the existing 24-ft bridge (between barriers) and replace it with a 30.75-ft wide (road width between barriers) bridge and a retaining wall using Conventional Bridge Construction Method. The road will be demolished and rebuilt with one-lane traffic control and two 30-day closures during the demolition and replacement using cast-in-place method. There will be two (2) 12-ft. lanes with a 5.75-ft shoulder on the right side and 1-ft shoulder on the left side. The eastbound widening by 5.75-ft will result from the need to build enough width during a first stage to have adequate temporary width to accommodate traffic on one lane during second-stage demolition and westbound construction of the new bridge. A retaining wall will be built to support the wider bridge. The construction will take approximately 245-268 working days to complete. Construction will occur over two (2) separate construction seasons. The plan is to replace one half of the bridge at a time.

US 50 will be fully closed twice, for 30 days each time. The LCC will show the hours when one-lane closure with reverse traffic control may occur on US 50.

Common Features of the Build Alternatives:

In addition to constructing the new structure, the metal beam guardrail will be replaced with concrete barrier rail. The scope of work also includes grinding the asphalt concrete at the bridge approaches and placing a smooth transition from the approach roadway to the new Portland cement concrete (PCC) deck. See **Attachment E**, Typical Cross Sections and **Attachment F**, Advance Planning Studies (APS).

Traffic control measures will be needed for all alternatives. A detour will be necessary during the full-closure period for construction operations such as delivery and erection of the precast elements. See Section 7C – Transportation Management Plan (TMP) for more information regarding traffic detours. See the Chart below for traffic control and road closures per each season.

Traffic Control and Road Closures Per Season

	Both Construction Seasons	Season 1	Season 2
Alternative 1			
Total Working Days (Includes contract administration)	130-166	72-90	72-90
Days of Construction Work	117-152	58-76	48-66
One-way reversible traffic	81-110	40-55	30-45
10-day full closure	1 – 10-day	0	1 – 10-day
Alternative 2			
Total Working Days (Includes contract administration)	260-300	136-150	136-150
Days of Construction Work	245-268	122-134	102-124
One-way reversible traffic	177-194	88-97	78-87
10-day full closure	1 – 10-day	0	1 – 10-day
Alternative 3			
Total Working Days (Includes contract administration)	260-300	136-150	136-150
Days of Construction Work	245-268	92-104	92-104
One-way reversible traffic	141-158	40-49	40-49
30-day full closure	2 – 30-day	1 – 30-day	1 – 30-day

The working days for Alternatives 2 and 3 are similar, although Alternative 2 is Accelerated Bridge Construction and Alternative 3 is Conventional Bridge Construction. Alternative 2 (ABC) will save time in constructing the superstructure under full bridge closure, but will take more time constructing the substructure without removing the existing superstructure. Alternative 3 will save time constructing the substructure, after removing half of the existing superstructure, but will take more time constructing the cast-in-place superstructure. The major benefit of Alternative 2 comes from the socioeconomic impacts (mobility impact time) of the shorter duration of the full closure (10 days vs. 60 days).

Caltrans encourages the optimization of capital construction cost and time of project completion by using working days and Cost + Time bidding. Cost-plus-time bidding is a method of determining the lowest responsible bidder for projects by requiring contractors to competitively bid the construction cost **AND** the number of working days to complete all work. Contract time is an integral part of every construction project. Cost + Time bidding will be used on this project.

See Advanced Planning Study, *Attachment F*, for structures information.

	Overall Width	Width Between Barriers	Lane Width	Shoulder Width
Existing	28'-8"	24'-0"	11'	1'
Alternative 1	29'-6"	26'-0"	12'	1'
Alternative 2	34'-3"	30'-9"	12'	1 - 5.75'
Alternative 3	34'-3"	30'-9"	12'	1 - 5.75'

Design Standards Risk Assessment:

Design Standards Risk Assessment				
Alternative	Design Standard from Highway Design Manual Tables 82.1A & 82.1B	Design Standard	Probability of Design Exception Approval (None, Low, Medium, High.)	Justification for Probability Rating
1, 2, & 3	HDM 201.6	Stopping Sight Distance	High	Substandard stopping sight distance is an existing condition throughout much of the mountainous terrain on Route 50 and within the project area due to short radius curves and steep slopes. The project is located on a mountainside with steep terrain above and below the existing highway. To increase stopping sight distance to meet the standard, major realignment of the horizontal curve would be needed. Any major realignment would encounter strict physical limitations.
1, 2, & 3	HDM 203.2	Horizontal Curve Radius	High	The project is located on a mountainside with steep terrain above and below the existing highway. Providing standard minimum curve radius for the selected design speed would require a combination of excavating the rock face on the north side and constructing a sidehill viaduct on a 1,000-ft radius curve.
1, 2, & 3	HDM 302.1	Minimum Shoulder Width	High	Realigning the roadway to meet the minimum shoulder width standard would have similar impacts that Design Standard Features mentioned above.
1, 2, & 3	HDM 309.1 (3)(b)	Horizontal Clearance to a Fixed Object	High	This portion of Hwy 50 is in mountainous terrain, constructed between numerous rocky cut slopes along the westbound shoulder and MBGR along a very steep embankment beyond the eastbound shoulder. Widening this length to a consistent 8 ft width for both shoulders would result in significant impacts.

5B. Rejected Alternatives

The alternative to rehabilitate the existing bridge was rejected. The estimated cost of this alternative is nearly more than its replacement. The total estimated cost of this alternative in the Project Initiation Document (PID) Phase was \$6,067,000 of which \$2,860,000 was the structures cost.

No build. This alternative does not address the need to rehabilitate or replace the bridge. The previously mentioned deficient structural component will continue to deteriorate and the associated maintenance costs will increase. The consequences of not completing the proposed work will accelerate deterioration and reduce the life span of the bridge.

6. CONSIDERATIONS REQUIRING DISCUSSION

6A. Hazardous Waste

An Initial Site Assessment (ISA) was completed for this project on May 10, 2016. The treated wood posts removed from existing metal beam guard railing (MBGR) are known to contain hazardous chemicals and should be disposed of in an appropriate landfill (Class 1 facility). The removed yellow traffic stripe material must be disposed of at a Class 1 disposal facility.

6B. Value Analysis

National Highway System (NHS) Designation Act of 1995 mandates a VE/VA study and lifecycle analysis on all federal aid highway projects on the NHS system with an estimated cost of \$50 million or more. This project does not meet the criteria for a full VA study. However, an analysis of bridge construction methods and schedules were conducted in December 2015 using value analysis methodology in order to refine US 50 closure estimate. This analysis was used to develop the current alternatives.

6C. Resource Conservation

The contractor should salvage and recycle when that option is available. Existing material should be salvaged, where practical, and reused or stored for future use. The contractor may recycle the AC grindings. However, no asphalt grindings may be placed in shoulder backing locations where erosion or maintenance operations could result in their deposit into waterways.

6D. Right-of-Way Issues

A Right of Way Data Sheet was prepared based on the scope of work. Although all work is being performed within the right of way, per the Right of Way Data Sheet dated August 31, 2016, Right of Way capital will fund permit fees. The project is within the existing Caltrans Easement and will require USFS notification. Coordination by Right of Way with USFS will be required in the form of a notice letter or permit. The costs for obtaining a Temporary Special Use Permit (SUP) have been included in the Right of Way Data Sheet. Disturbance or relocation of utility services is not anticipated. See Right of way Data Sheet, *Attachment G*, for more information.

6E. Environmental Issues

In order to identify environmental issues, constraints, costs, and resource needs, an Initial Study/Mitigated Negative Declaration (IS/MND) was prepared for this project. The proposed project would have no effect on existing and future land use, the coastal zone, wild and scenic rivers, parks and recreational facilities, growth, farmlands/timberlands, relocations and real property acquisition, environmental justice, utilities/emergency services, cultural resources, hydrology and floodplain, paleontology, natural communities, wetlands and other waters, plant species, animal species, threatened and endangered species, and invasive species. The proposed project would have less than significant effect on visual/aesthetics, community character and cohesion, traffic and transportation/pedestrian and bicycle facilities, water quality and stormwater runoff, geology/soils/seismic/topography, hazardous waste/materials, air quality, and noise. See *Attachment H*, Draft Environmental Document, for more information.

6F. Air Quality Conformity

This project area is not in a nonattainment or maintenance area for ozone, nitrogen dioxide, or carbon monoxide (NAAQS pollutants). This project is exempt from air quality conformity analysis requirements.

6G. Title VI Considerations

The Title VI Policy, referencing Title VI of the Civil Rights Act of 1964, states that the Department will ensure that no person, regardless of race, color, national origin, sex, disability, or age, will be subjected to discrimination under any program or activity that the Department administers.

- *Environmental Justice*: This project is not expected to result in any significant community or socio-economic impacts.
- *Pedestrian and nonmotorized trails*: There are no pedestrian facilities within the project limits.
- *Ramped curbs*: There are no proposed curbs within the project limits.
- *Public transit stops*: There are no transit facilities operating within the project limits.

6H. Noise Abatement Decision Report

This project is not a Type 1 project; therefore, it does not require a project-level noise analysis. A type 1 project is a proposed Federal or Federal-aid highway project on a new location, or the physical alteration of an existing highway, where there is substantial change in vertical or horizontal alignment, or an addition of a through traffic lane, that has a potential to increase noise at the noise source and the receptors (at a land use that is noise sensitive).

7. OTHER CONSIDERATIONS AS APPROPRIATE

7A. Public Hearing Process:

A Public Hearing will not be required, as the environmental document was changed to an IS/MND. A Public Outreach and Participation Meeting will be scheduled during the fall of 2016 to present

alternatives for public comment. This meeting will provide interested individuals, businesses, and agencies an opportunity to review project layout maps and informational displays and to comment on the scope of the project.

7B. Permits:

The following environmental permits will be needed for this project:

- Permit from Tahoe Regional Planning Agency for construction activity within the Tahoe Basin
- Approval from the State Historical Preservation Office (SHPO)

7C. Transportation Management Plan:

District 3 Traffic Operations has prepared a Transportation Management Plan (TMP) Datasheet for this project. The TMP recommendations are summarized below.

- All three of the alternatives will require complete roadway closures and a detour plan prepared by the Project Engineer in consultation with Traffic Operations.
- Due to safety considerations, work at this location may require the assistance of Construction Zone Enhanced Enforcement Program (COZEEP).
- Coordinating with El Dorado County is recommended to handle traffic through the construction area and detour route.
- Coordination with projects in District 3, as well as District 10 and local agency jurisdictions, will be required to avoid conflicts with projects in the Tahoe Basin, or along the detour routes.
- In the Tahoe Basin, work will be allowed at nighttime between Memorial Day and Labor Day (Peak Season).

An extensive public information campaign is needed as part of the TMP to insure the motorists and businesses are fully informed about the project. The estimate includes a sum of \$150,000 to be used by the Public Information Office (PIO). The Public Information Office funds are paid for public outreach in the form of fliers, mailers, brochures and other uses as determined by the PIO. See Transportation Management Plan Data Sheet, *Attachment I*, for more information.

Traffic control measures will be needed for all three alternatives during the road closures. A detour will be necessary during the full-closure period for construction operations such as delivery and erection of the steel girders. There will be two (2) official detour routes between the City of Sacramento and the Lake Tahoe Basin. Traveling from the City of Sacramento eastward to the Lake Tahoe Basin, the official detour routes are:

- 1) US 50 east, State Route (SR) 16 east, SR 49 south, SR 88 east, SR 89 north, and US 50, respectively, or,
- 2) US 50 east, SR 49 south, SR 88 east, SR 89 north, and US 50.

Even though Johnson Pass Road is not one of the official detour routes, its proximity to the project area makes the road a viable option for the local residents. However, Johnson Pass Road does not have the geometrics, alignment, safety standards, or strength sufficient for highway-type loading. The increased traffic volume could damage the roadway, therefore the road would become unsafe for travelers. As a result, only the local residents and emergency vehicles would be allowed to use Johnson Pass Road during the full-closure period. The residents will be given passes that will be enforced by the California Highway Patrol. This road will be for passenger vehicles only, used for a limited duration with a light volume of traffic. The gross weight and length of vehicle will be limited and towing of trailers will be prohibited.

7D. Stage Construction:

Stage Construction plans will be developed during the design phase.

7E. Storm Water Compliance:

This project will comply with the Caltrans Statewide National Pollutant Discharge Elimination System (NPDES) permit and Lake Tahoe Hydrologic Unit General Permit, issued by the California Regional Water Quality Control Board, Lahontan Region. It will also comply with the requirements of the Tahoe Regional Planning Agency (TRPA). The Engineer's Cost Estimate includes the costs of Temporary Construction Site Best Management Practices (BMPs) that will be incorporated into the project. The contract will also include requirements for preparation of a Water Pollution Control Program (WPCP) as the total soil disturbance area is less than one acre. A Storm Water Data Report (SWDR) has been prepared for this project and will be finalized in the Final Project Report.

7F. Local and Regional Input:

This project will substantially impact public convenience, so coordination with local and regional authorities is a critical aspect. This requires negotiations with South Shore Traffic Management Association (SSTMA), South Lake Tahoe City Council, Tahoe Regional Planning Agency (TRPA), South Lake Tahoe Chamber of Commerce, El Dorado County, District 10 and District 3 Lane Closure Review Committees, and other stakeholders.

7G. Community Impacts and Emergency Services:

Based on the isolated location of this bridge and the lack of detours in the area, full closure of this bridge will have an effect on the community and visitors to the area. Early and continued outreach and consultation to the community and agencies is recommended. A Community Impact Assessment (CIA) was prepared for this project. It is anticipated that an Informational Public Workshop will be held for proper outreach to the community and other agencies.

7H. Complete Streets

The elements of Complete Streets do not apply to this rural project.

7I. Climate Change

The impacts of climate change and extreme weather events may greatly impact the State Highway System (SHS) and other transportation infrastructure in the state. As the climate continues to change at an increasingly rapid pace, Caltrans must ensure climate change mitigation and adaptation measures are identified and implemented, when appropriate and feasible. To better understand the vulnerabilities along the SHS to extreme weather events, Caltrans is currently conducting statewide vulnerability assessments in each District to identify where the SHS is vulnerable to increased heat, wildfires, precipitation changes, landslides, sea level rise, and storm surge. These assessments will be complete in 2018 and will guide future planning, design, and programming decisions to increase the resiliency of the SHS. Additional climate change efforts underway at Caltrans include new climate change language in the Regional Transportation Planning guidelines, research and support to expand the alternative fuel vehicle infrastructure, research on the urban heat island in the state, and expansion of greenhouse gas reductions from Caltrans' activities.

The proposed project is outside the coastal zone and impacts due to projected sea level rise are not anticipated. Other projected future climate conditions such as extreme heat and potential for change in precipitation rates should be evaluated during final design to ensure materials selected will withstand a range of conditions.

7J. Wildlife Crossings

The Department has recently emphasized the consideration of incorporating wildlife crossings on all projects to facilitate migration of larger animals and reduce animal hits by vehicles. Consideration of this feature has been analyzed and found that there is no habitat of concern in the area.

8. FUNDING, PROGRAMMING AND ESTIMATE

Funding

It has been determined that this project is eligible for Federal-aid funding.

This project is programmed in the 2016 SHOPP Bridge Rehabilitation Program (20.10.201.110) for delivery in the 2017/2018 fiscal year. Construction is anticipated to start in 2019.

Programming

Fund Source	Fiscal Year Estimate								Total
	Prior	16/17	17/18	18/19	19/20	20/21	Future		
Component	In thousands of dollars (\$1,000)								
PA&ED Support	751	1,249	0	0	0	0	0		2,000
PS&E Support		466	585	49	0	0	0		1,100
Right-of-Way Support		1	2	3	3	7			16
Construction Support			437	673	352	40			1,502
Right-of-Way		27							27
Construction			6,000						6,000
Total	751	1743	7,024	725	355	47	0		10,645

The funding source is from the SHOPP 20.10.201.110 Bridge Rehabilitation Program. The support to capital cost ratio is 76.18%.

See Programming Sheet, *Attachment J*, for project support.

9. DELIVERY SCHEDULE

Project Milestones		Milestone Date (Month/Day/Year)	Milestone Designation (Target/Actual)
PROGRAM PROJECT	M015	03/20/2014	Actual
BEGIN ENVIRONMENTAL	M020	11/06/2014	Actual
NOTICE OF PREPARATION (NOP)	M030	02/09/2015	Actual
CIRCULATE DED EXTERNALLY	M120	10/10/2016	Target
PA & ED	M200	12/01/2016	Target
DESIGN SAFETY REVIEW	M310	04/01/2017	Target
60% CONSTRUCTABILITY REVIEW	M313	01/17/2017	Target
PS&E TO DOE	M377	12/01/2017	Target
DRAFT STRUCTURES PS&E	M378	11/15/2017	Target
RIGHT OF WAY CERTIFICATION	M410	04/15/2018	Target
READY TO LIST	M460	04/15/2018	Target
FUND ALLOCATION	M470	06/15/2018	Target
HEADQUARTERS ADVERTISE	M480	07/15/2018	Target
AWARD	M495	11/01/2018	Target
APPROVE CONTRACT	M500	12/01/2018	Target
CONTRACT ACCEPTANCE	M600	12/01/2020	Target
END PROJECT	M800	12/01/2023	Target

10. RISKS

See Project Risk Register/Risk Certification, *Attachment K*, for more information.

11. FHWA COORDINATION

This project is considered to be an Assigned Project in accordance with the current FHWA and Department of Transportation (Caltrans) Joint Stewardship and Oversight Agreement.

Per Fixing America’s Surface Transportation (FAST) Act, this project is eligible for federal-aid funding and is considered EXEMPT under the current FHWA/Caltrans Stewardship Agreement.

12. PROJECT REVIEWS

District Program Advisor	<u>John Welch</u>	Date	<u>August 2, 2016</u>
Headquarters SHOPP Program Advisor	<u>Nancy Bruton</u>	Date	<u>August 3, 2016</u>
District Maintenance	<u>Bill Netto</u>	Date	<u>August 2, 2016</u>
Headquarters Project Delivery Coordinator		Date	
Project Manager	<u>Clark Peri</u>	Date	<u>August 7, 2016</u>
District Safety Review	<u>Johny Tan</u>	Date	<u>August 2, 2016</u>
Constructability Review	<u>Abel Huerta</u>	Date	<u>August 6, 2016</u>

13. PROJECT PERSONNEL

Clark A. Peri	Project Manager	(916) 274-0538
Laura Lewis	Project Management	(530) 741-4471
Ken Keaton	Design Branch Chief	(530) 741-5372
Brenda Harwell	Project Engineer	(530) 741-4192
John Welch	Bridge Program Advisor	(530) 741-4029
Laura Loeffler	Environmental Branch Chief	(530) 741-4592
Gail St. John	Environmental Branch Chief	(530) 741-7116
Napasssakorn Pongsmas	Environmental Coordinator	(530) 741-5387
Nicki Johnson	Landscape Architect	(530) 741-4012
Jason Lynch	HQ Structures	(916) 227-8283
Kyoung-Hyeog Lee	HQ Structures	(909) 598-6161
Jacqueline Martin	Structures Foundations	(916) 227-1051
Lee Martin	Right of Way	(530) 741-4074
Kathy Kent	Right of Way	(530) 741-4290
Gurdeep Bhattal	Hydraulics	(530) 740-4830
Steven Vo	Traffic Forecasting	(530) 741-5177
Nicholas Deal	Traffic Forecasting Chief	(530) 741-5151
Joyce Loftus	Traffic Operations Chief	(530) 741-5411
Sam Batakji	Traffic Operations	(530) 740-4948
Johny Tan	Traffic Safety Branch Chief	(530) 741-5718

14. ATTACHMENTS

- A. Title Sheet/Location Map
- B. Layouts
- C. Preliminary Cost Estimate
- D. Bridge Inspection Records Information System (BIRIS)
- E. Typical Cross Sections
- F. Advanced Planning Study
- G. Right of Way Data Sheet
- H. Draft Environmental Document (DED)
- I. Traffic Management Plan Data Sheet
- J. Programming Sheet
- K. Project Risk Register