U.S. Department of Transportation Federal Highway Administration- California Division- Title 23 Damage Assessment Form (DAF)	DAF No. - NAP - 0 2 3 - 0 Sheet # 1 of 3 Federal Project # EO ER - ( ) Disaster No. CA 1 4 - 1 PR ER - ( )

Applicant	County	Incident Date (mm/dd/yyyy)	Inspection
Napa County Public Works	Napa Congressional districts 5	08/24/2014	09/26/2014

Location of Damage: Per Site [✓] or [ ] Per Mile

Name of Road/Bridge: Silverado Trail Bridge

PM Begin: 26.50 PM Length: 6.00 (in feet)

PM End: 26.50

Federal-aid Highway? Y for yes, if no, ineligible for ER funds: Y

Map No: 5K13

Functional Classification Type: MAJOR COLLECTOR

Route #

Road/Bridge Data: Bridge No Type: Conc Arch.& Box,Stc

Traveled Way: Width 38 Type: PCC [ ] AC [✓] Gravel [ ]

Shoulder: Width 8 Type: PCC [ ] AC [✓] Gravel [ ]

Forest Hwy? Y/N: N Interstate? Y/N: N

Existing ADT: 5,450

Description of Damage: Cracks, missing mortar between stones, and missing stone on existing stone masonry barrier.

COST ESTIMATE

	Type of Repair	Description of Work	Cost Summary	
Emergency Opening (EO)	EO- AGENCY FORCES CT Work Order #(s): EA(s):		PE	0
			CE	0
			Construction	0
	EO- CONTRACT EO EA(s):		PE	
			CE	
			Construction	
	NOTE: Environmental documentation for EO is required. It is generally started after work has begun.		R/W	
		Subtotal Emergency Opening		$0
Permanent Restoration (PR)	PR- CONSTRUCTION FA requires an approved PIF [✓] Contract [ ] FA PR EAs	Replace (E) damaged stone masonry barrier with concrete barrier slab and concrete barrier with architectural stone veneer.	PE	1,733
			CE	2,599
			Construction	21,664
	NOTE:PRIOR AUTHORIZATION (APPROVED E-76) IS REQUIRED TO PROCEED WITH PERMANENT RESTORATION R/W & CONSTRUCTION		R/W	
	NOTE: Environmental clearance for permanent restoration is conducted through normal Federal-aid procedures	Subtotal Permanent Restoration		$25,996

Eligible		Signature	Date		
[✓] Yes	[ ] No	Local Agency (if applicable):	4.13.2015	PE Total	$1,733
[ ] Yes	[ ] No	Caltrans:	5-8-15	CE Total	$2,599
[ ] Yes	[ ] No	FHWA*:		R/W Total	$0
				Construction Total	$21,664
			TOTAL ESTIMATE		$25,996

Agency sig. Name (print): For Mallika Ramachandran, P.E.

CT signature Name (print): John Brewster

FHWA Sig. Name (print):

DAF Prepared by (print): Yoliana Swenson, P.E., BCA

Original: Caltrans District **Copies**: FHWA, Division of Local Assistance(local roads), Federal Resources (state hwy), HQ Major Damage Engineer (state hwy)
*Write "N/A" in FHWA signature block if the project has no Federal ER funding or Federal ER funding delegated to the State.
FHWA Signature: REQUIRED for all Federal Funded State projects. REQUIRED for any Local Agency projects with 1) [illegible], 2) more than 2 ROW takes or 3) when paving is more than 50% of the Total Estimated Cost. **Reminder: This DAF must be accompanied by photos of the damage.**

U.S. Department of Transportation Federal Highway Administration- California Division- Title 23 Damage Assessment Form (DAF)	DAF No. [ ] - NAP - 0 2 3 - 0 Sheet # 2 of 3 Federal Project # EO ER - _____( ) Disaster No. CA 1 4 - 1 PR ER - _____( ) Agency EO Calc [ ] EO contract [ ] PR Calc [X]

ITEM #20 FROM BRIDGES & CULVERTS SPREADSHEET

SILVERADO TRAIL MPM 26.50 (REF: District 3, Structure 8) LOP 215; DAF 23 **3/9/2015**

BRIDGE REPAIR

Item	Description	Unit	Quantity	Unit Price	Estimated Cost
1	Mobilization	LS	1	$ 1,102.40	$ 1,102.40
2	SWPPP Implementation, Erosion and Sediment Control (BMP)	LS	1	$ 551.20	$ 551.20
3	Clearing, Grubbing and Misc. Demolition	LS	1	$ 1,102.40	$ 1,102.40
4	Traffic Control	LS	1	$ 551.20	$ 551.20
5	Remove Barrier	LF	20	$ 65.00	$ 1,300.00
6	Structural Concrete for Barrier Slab	CY	10	$ 650.00	$ 6,500.00
7	Permanent Concrete Barrier	LF	20	$ 110.00	$ 2,200.00
8	Architectural Treatment for Conc. Barrier	SF	128	$ 8.00	$ 1,024.00
9	Right of Way Analysis/Appraisal/Acquisition/TCE	LS	1	$ -	$ -
10	Environmental Process, Permitting & Fees, Environmental Mitigation, Environmental Monitoring & Reporting	LS	1	$ 3,000.00	$ 3,000.00
	Subtotal				**$ 17,331.20**
	25% Contingency (Planning Level)				$ 4,332.80
	Total Construction				**$ 21,664.00**
	PE 10% of Total Construction				$ 1,733.12
	CE 15% of Total Construction				$ 2,599.68
	Total Estimated Cost				**$ 25,996.80**
				ESTIMATED PROJECT COST	**$ 26,000.00**

Justifications/comments

All quantities are estimated, the actual limits of work can only be determined in preliminary engineering phase. The sizes of structure and pavement sections are estimated. Actual structure type and size and pavement section will be determined by hydraulic, geotechnical and other studies. Items of work are broken down to the extent feasible for budgetary estimate. The items will be further defined and itemized in preliminary engineering phase.

Unit price of $8/SQFT for item no. 8 'Architectural Treatment for Concrete Barrier' is the one of the lowest unit price from Caltrans Contract Cost Data, Item Code: 511035-Architectural Treatment, Range: 0-10000, Top 3, 2012-2014. Unit prices range from $3/SQFT to $50/SQFT. Using $8/SQFT unite price, the total amount for item no. 8 is approximately 5% of the Total Construction. It is highly likely that the unit price will be higher than the unit price used in the estimate, especially with only 128 SQFT quantity.

25% of contingency is used for unforeseen expenses or unknown factors encountered during construction, which are typical with this repair type of project.

In general the following items are included in the Environmental Process, Permitting & Fees, Environmental Mitigation, and Environmental Monitoring & Reporting:

- Environmental Process – CEQA/NEPA Process required coordination with the following agencies: CDFWL, ACOE, RWQCB, NOAA, USFWL, FEMA, SHPO, etc.
- Permitting & Fees - For permits from RWQCB and CDFWL, on an average is approximately $2,000 each, plus another approximately $2,000 for CDFWL to review Initial Study/MND (if one is required).
- Environmental Mitigation – depending on the complexity of the project and impact ranges from roughen channel, riparian restoration at a 3:1 ration to habitat structures and fish passage and scour measures a 3: 1 ratio to habitat structures and fish passage and scour measures.
- Environmental Monitoring and Reporting: Includes construction phase monitoring and post construction monitoring which is a minimum 5 years of maintenance, monitoring and reporting.

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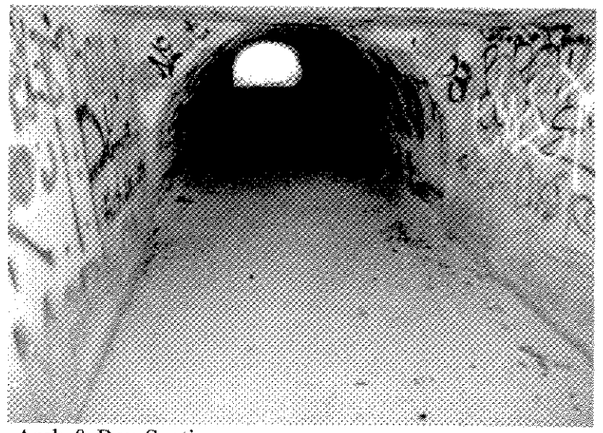
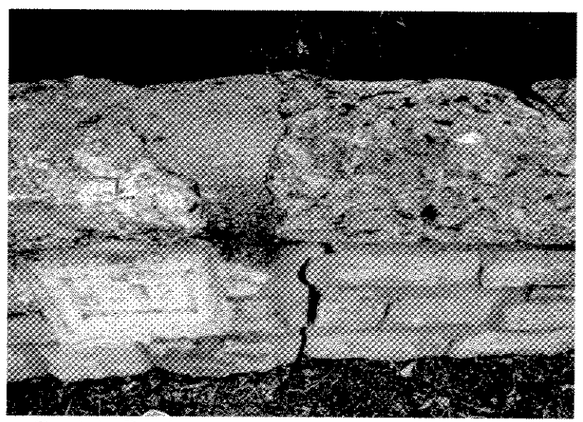
Roadway Surface



Arch & Box Sections

Damaged Barrier



Crack in Barrier

Crack in Damaged Barrier Above Headwall

Damage Assessment and Recommendations Report
Silverado Trail Rd MPM 26.50 Bridge
03/09/15

Damage Assessment

Silverado Trail Bridge consists of 3 different segments. The segments include concrete arch, stone masonry arch, and rectangular concrete box segment. No damage is observed at the bridge structure, other than cracks and missing mortar/stone at the stone masonry barrier.

Recommendations

Bridge repair includes replacing the existing stone masonry barrier with concrete barrier slab and concrete barrier. Stone architectural treatment will be applied to the concrete barrier to match the existing stone masonry look.

Please note that the repair solution and cost estimate is based on the assumption that the existing structure meets all current codes, standards and regulations, which are highly unlikely. In the preliminary engineering phase hydraulics, geotechnical, unforeseen site conditions, archeology/historic significance, and other studies, and State and Federal permitting regulations and requirements may show that the proposed repair solution do not meet current code, standards and regulations and the repair strategy will have to be modified to meet current codes, standards and regulations leading to higher repair costs.

PREPARED BY: YOLIANA SWENSON, P.E
BKF/Biggs Cardosa Associates, Inc.

REVIEWED BY: MALLIKA RAMACHANDRAN, P.E., SUPERVISING CIVIL ENGINEER
COUNTY OF NAPA

INITIAL SUMMARY REPORT OF STRUCTURE

Structure No.: 8 (District #3)	Name: Silverado Trail
Location: MPM 26.50	Dimensions:
Type: Stone w/ Mortar/Concrete	Length: 6'-0"
General Description: Structure divided between: • Concrete Arch. • Stone w/ Mortar Arch. • Concrete Rectangular Box	Width: 49'-0" Roadway Width: 49'-0"
Date Constructed: NA	Date of Other Work: NA
Date of Inspection: 9/26/14	Date of Last Inspection: NA
Repair Work Since Last Inspection: NA	

Structure Component	Material	General Remarks
Approaches	NA	
Top Of Deck	Asphalt	
Underside of Deck	NA	
Beams Supporting Deck	NA	
Walls	Concrete/Stone w/ Mortar	No damage visible.
Wingwalls	Stone w/ Mortar	No damage visible.
Arch/Roof	Concrete/Stone w/ Mortar	No damage visible.

Non-Structural Items	General Remarks
Channel/Waterway Adequacy	Debris and vegetation present in streambed.
Barrier, Guardrail and Fence	Cracks and missing stones on stone barriers.
Sidewalk	NA

Initial Summary of Findings:

- Cracks and missing mortar/stone at the stone masonry barrier.

These initial finding are based only on visual observations of existing conditions at the time of the damage assessment. Certain conditions may not be visible or may be affected by the passage of time.

district 3

Bridge Inspection					
Road	ADDT'L LOCATION INFO	Description/Type	Date Inspected	Recommended Maintenance	Length
White Cottage Road	MPM 02.38	Stone Arch w/cement arch extension, & cement box extension	5/29/14	Stone Arch has scour in all areas not covered w/gravel (which is most). Cement arch also getting scour in most areas. Inlet end of box getting scour under middle.	9'9"
Rossi Road	.1mi. North of 00.00	Concrete w/, possibly, added cement floor	5/30/14	42 bolts missing from guardrails. Brush around part of 2 guardrail. Boulders around outlet have rattlesnake den. Mild distortions in road at bridges approaches. Bridge floor has a couple feet of undermining at outlet. Quality of bridges structural concrete work is very poor.	11'10"
☆ Silverado Trail DAF23	MPM 26.50 between Rosedale & Bremen Street	Stone Arch w/partial Stone & cement floor w/ box extensions at both ends	5/30/14	Stone rails have some vertical cracks. Inlet wing wall has some scour. Some mortar eroded in a couple of small areas near water line of arch walls. Uncertain if arch has floor, or not, near W. ends. Some large gravel prohibits checking w/probe, or seeing bottoms of walls.	6'
Toll Road	~~1/4mi. North of Hwy 29~~	~~Large Cement Box~~	~~5/30/14~~	~~Floor & S. wall were poured around rocks. Some of the cement is eroding in floor, & there's some scour on S. wall, & wing wall, where wall was poured over rocks. Gravel prohibits seeing bottom of W. wall.~~	10'6" is culvert.
Tubbs Lane	Napa River ½ mi. West of Hwy 29	Stone Arch w/multiplate arch w/cement walls extension	5/30/14	Need waders, or inspect when dryer. re-inspected when dry (after quake) & is in good condition, but top of outlet wing wall is being pushed by tree.	
Myrtledale Road		Cement Arch Box	5/30/14	Inlet has floor. Can't see floor at outlet, & unsure if there's a stone arch in middle. Need waders, or Insp. when dryer	

insp. when dryer

insp. when dryer

EXHIBIT 3-O SAMPLE LOCAL FEDERAL-AID PROJECT FINANCE LETTER

DEPARTMENT OF TRANSPORTATION
DIVISION OF ACCOUNTING
LOCAL PROGRAM ACCOUNTING BRANCH

ATTN: RACHEL CARPENTER

Date: 4·13·2015
Agency: NAPA COUNTY
Fed Project No.:
Project ID.: DAF 23 Silverado Trail MP 26.50
PPNO.:
Bridge No :

Work on State Highway (Y or N): N If yes, provide following:
Administered by State or Local?
Project Manager Name:
Accounting Program Code(s):
Coop or Contribution Agrmnt No.:

	EO	PR	"P" or "L"*	TOTAL COST OF WORK	FEDERAL PARTICIPAT. COST	100% FEDERAL FUND TYPE (1)	88.53% FEDERAL FUND TYPE (2)	STATE MATCH FUNDS	LOCAL MATCH FUNDS	OTHER FUNDS
PRELIMINARY ENGINEERING										
Preliminary Engineering: EMERGENCY OPENING			P	$0	$0	$0			$0	
Preliminary Engineering: PERMANENT RESTORATION			P	$1,733	$1,733		$1,534		$199	
State Furnished Preliminary Engineering										
Overhead at _____ %										
RIGHT OF WAY (R/W)										
Purchase Costs										
Relocation Assistance /Utility										
CONSTRUCTION:										
Contract Items	$0	$17,331.20								
Utilities										
Supplemental Work										
Contingencies		$4,333								
Trainees										
Agency/State Furn. Mat.										
Contract Total:	$0	$21,664	P	$0	$0	$0			$0	
			P	$21,664	$21,664		$19,179		$2,485	
CONSTRUCTION ENGINEERING										
Construction Engineering: EMERGENCY OPENING			P	$0	$0	$0			$0	
Construction Engineering: PERMANENT RESTORATION			P	$2,600	$2,600		$2,301		$298	
State Furnished Construction Engineering										
Overhead at _____ %										
State Furnished Materials Testing										
Overhead at _____ %, Subjob _____										
Striping by Agency										
Force Account Work by Agency										
TOTALS:			P	$25,997	$25,997	$0	$23,015		$2,982	

* "P" = Pro Rata, "L" = Lump Sum

Federal Participation: _____
Federal Appn. Code(s): _____
Federal Reimbursement Rate(s) for Progress Invoice:

PHASE	FED (1)	FED (2)
PE		
R/W		
CON	100	88.53%
CE		

Distribution: (1) Original + 4 copies-Caltrans DLAE
(2) Copy-Local Agency Project File

Certification

I certify that this Finance Letter accurately reflects the current cost estimate for all phases of the project obligated but not fully expended.

Signature :
Title : SUPERVISING CIVIL ENGINEER
Project location : SILVERADO TRAIL MP 26.50, NAPA COUNTY
Remarks :

For questions regarding finance letter, contact:
Printed Name: MALLIKA RAMACHANDRAN, P.E.
Telephone No.: 707-259-8194