

U.S. Department of Transportation Federal Highway Administration- California Division- Title 23 Damage Assessment Form (DAF)		DAF No. <input type="text"/> - NAP <input type="text"/> - 0 2 2 - 0	Sheet # 1 of 3 Federal Project # EO ER - ()
		Disaster No. CA <input type="text"/> 1 4 - <input type="text"/> 1 PR ER - ()	
Applicant Napa County Public Works		County Napa Congressional districts 5	Incident Date (mm/dd/yyyy) Inspection 08/24/2014 09/25/2014
Location of Damage: _____ Per Site <input checked="" type="checkbox"/> or <input type="checkbox"/> Per Mile		Federal-aid Highway? Y for yes, if no, ineligible for ER funds <input type="checkbox"/> Y	
Name of Road/Bridge: Silverado Trail Bridge at Taplin Rd		Map No <input type="text"/> 5K13	
PM Begin: 15.35 PM Length: 10.00 PM End: 15.35 (in feet)		Functional Classification Type: MAJOR COLLECTOR	
Road/Bridge Data:	Bridge No _____ Type: Conc Arch & box, stc	Route # _____	
Traveled Way: Width 45 Type: PCC <input type="checkbox"/> AC <input checked="" type="checkbox"/> Gravel <input type="checkbox"/>	Shoulder: Width 5 Type: PCC <input type="checkbox"/> AC <input checked="" type="checkbox"/> Gravel <input type="checkbox"/>	Forest Hwy? Y/N <input type="checkbox"/> N Interstate? Y/N <input type="checkbox"/> N	
Description of Damage: Cracks, missing mortar between stones, and missing stones on stone barrier, at North side of structure.		Existing ADT: 5,450	

ESTIMATE			
Emergency Opening (EO)	Type of Repair	Description of Work	Cost Summary
	EO- AGENCY FORCES CT Work Order #(s): _____ EA(s): _____		
			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	Replace (E) damaged stone barrier with concrete barrier slab and concrete barrier with stone architectural treatment over barrier.	PE 1,733
	<input checked="" type="checkbox"/> Contract <input type="checkbox"/> FA		CE 2,599
	PR EAs _____		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	PE Total \$1,733
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Local Agency (if applicable): <i>Mallika Ramachandran</i>	4.13.2015	CE Total \$2,599
<input type="checkbox"/> Yes <input type="checkbox"/> No	Caltrans: <i>John Brewster</i>	5-8-15	R/W Total \$0
<input type="checkbox"/> Yes <input type="checkbox"/> No	FHWA*: _____		Construction Total \$21,664
TOTAL ESTIMATE			\$25,996

Agency sig. Name (print): *Far* Mallika Ramachandran, P.E. FHWA Sig. Name (print): _____
 CT signature Name (print): *John Brewster* 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) any BETTERMENT, 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. <input type="text"/>	-	NAP	-	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>
	Sheet # 2 of 3	Federal Project # EO ER - <input type="text"/> ()													
	Disaster No. CA <input type="text"/> <input type="text"/> - <input type="text"/>	PR ER - <input type="text"/> ()													
	Agency EO Calc <input type="checkbox"/>	EO contract <input type="checkbox"/>			PR Calc <input checked="" type="checkbox"/>										

ITEM #19 FROM BRIDGES & CULVERTS SPREADSHEET

SILVERADO TRAIL AT TAPLIN ROAD (REF: District 3, Structure 2) LOP 214; DAF 22 **2/4/2015**

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 unit 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.

PE & CE costs are assumed to be higher than 10% & 15% of construction cost. Due to project size and environmental items and permitting requirements, more preparation and coordination work will be required as well. This will require additional Napa County's engineers time compared to a typical projects, therefore a slightly higher PE costs. It is assumed that each PE & CE cost to be \$5000 minimum.

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.

U.S. Department of Transportation
Federal Highway Administration-
California Division- Title 23
Damage Assessment Form (DAF)

DAF No. - NAP - 0 2 2 - 0
Sheet # 3 of 3 Federal Project # EO ER - ()
Disaster No. CA 1 4 - 1 PR ER - ()

Photos, Sketches, and/or Narrative



Crack at Stone masonry Barrier



Crack at Stone masonry Barrier

Damage Assessment and Recommendations Report
Silverado Trail at Taplin Rd MP 15.35 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 at the North side of the structure.

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.: 2 (District #3)		Name: Mt. Silverado Trail
Location: At Taplin Rd.		Dimensions:
Type: Stone w/ Mortar/Concrete		Length: 10'-0"
General Description: Structure divided between: <ul style="list-style-type: none"> • Concrete Arch. • Stone w/ Mortar Arch. • Concrete Rectangular Box 		Width: 60'-0"
		Roadway Width: 60'-0"
Date Constructed: NA	Date of Other Work: NA	
Date of Inspection: 9/25/14	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	Concrete/Stone w/ Mortar/Corrugated Metal Arch	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 barrier at North side of structure.	
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.

Cement bridge on Toyon St. (presently under culverts)

district 3

Bridge Inspection

Road	ADDTL. LOCATION INFO	Description/Type	Date Inspected	Recommended Maintenance	Length
Silverado Trail DAF 25	MPM 10.64 (about down) 0.2 mi North of Oakville Cross Road	Stone Arch w/ cement arch extension, added cement spacers, w/ cement box extension.	5/23/14	E. guard rail has some brush, but it's clear of bike path. Box & labor has minor cracks. Sprayed obstructing bottom of stone arch wall open but bottom of both arch walls protrude is eroding, & could use some cement, especially at outlet. Outlet wing wall has diagonal crack.	16'
Silverado Trail DAF 22	at Taplin Road	Stone Arch w/ added cement floor w/ cement box extension	5/23/14	Vertical cracks on arch stone jacket protruding on E. side of arch w/ going through rail. Stone raising from bottom of inlet headwall, needs repair. Some mortar missing from inlet headwall. Arch's floor is eroded, finished at middle of sides, & needs cement repair in mid-ko.	Stone Arch 8' Cement box 10'
Skinner Lane	at west of Portia Road	Cement bridge (possibly box)	5/23/14	Use stone if box culvert or cast concrete floor w/ probe. Street has a little dry gravel in S. wet. Cracks in headwall at both sides of road.	8'
Pratt Avenue	at Silverado Trail	Cement bridge w/ center embankment	5/23/14	Need washers, or wait till dryer for access to E. bank to see footing. All else looks fine. Center embankment has normal erosion from higher water.	110'
Sanitarium Rd. Stone Arch at foot of Hill	Stone Arch at foot of Hill Canon Creek	Stone Arch	5/29/14	2 limbs wedged in inlet. 2' of large rocks of gravel in inlet sides. Inlet arch wall needs mortar near S. side inlet. Several capstones missing over rail. Berries getting thick in creek after outlet.	9'
Howell Mountain Road	1/2 mi. South of Angwin, or 2 mi. South of Cold Springs Road.	Stone Arch w/ multiple arch w/ cement wall foundations extension	5/29/14	Stone Arch & Multiple plate foundations are built on bedrock. Parts of foundations aren't visible, cause of gravel. 18" tree trunk laying in file.	Stone Arch 20' Multiple foundations 17'4"

re-insp. when dryer

I added this to list



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

DEPARTMENT OF TRANSPORTATION
 DIVISION OF ACCOUNTING
 LOCAL PROGRAM ACCOUNTING BRANCH

ATTN: RACHEL CARPENTER

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 Agrmt No.: _____

Date: 4.13.2015
 Agency: NAPA COUNTY
 Fed Project No.: _____
 Project ID: DAF 22 Silverado Trail at Taplin Rd
 PPNO.: _____
 Bridge No.: _____

"P" or "L" *
 FEDERAL PARTICIPAT. COST
 TOTAL COST OF WORK
 FEDERAL FUND TYPE (1)
 FEDERAL FUND TYPE (2)
 STATE MATCH FUNDS
 LOCAL MATCH FUNDS
 OTHER FUNDS

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

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 15.35, NAPA COUNTY
 Remarks: _____
 Printed Name: MALLIKA RAMACHANDRAN, P.E.
 Telephone No.: 707-259-8194

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