

U.S. Department of Transportation Federal Highway Administration- California Division- Title 23 Damage Assessment Form (DAF)		DAF No. _____ - NAP _____ - 0 2 4 - 0	Sheet # 1 of 3 Federal Project # EO ER _____ ( )
Disaster No. CA 1 4 - 1 PR ER _____ ( )		Applicant Napa County Public Works	County Napa Congressional districts 5
Location of Damage: _____ Per Site <input checked="" type="checkbox"/> or <input type="checkbox"/> Per Mile		Incident Date (mm/dd/yyyy) 08/24/2014	Inspection 09/23/2014
Name of Road/Bridge: Silverado Trail Box Culvert		Federal-aid Highway? Y for yes, if no, ineligible for ER funds <input type="checkbox"/> Y	
PM Begin: 0.16 PM Length: 14.00 PM End: 0.16 (in feet)		Map No 5K13	
Road/Bridge Data: Bridge No _____ Type: Conc Box Culvert		Functional Classification Type: MAJOR COLLECTOR	
Traveled Way: Width 38 Type: PCC <input type="checkbox"/> AC <input checked="" type="checkbox"/> Gravel <input type="checkbox"/>		Route # _____	Forest Hwy? Y/N <input type="checkbox"/> N Interstate? Y/N <input type="checkbox"/> N
Shoulder: Width 7 Type: PCC <input type="checkbox"/> AC <input checked="" type="checkbox"/> Gravel <input type="checkbox"/>		Existing ADT: 5,450	
Description of Damage: Vertical crack at deck & ext. wall connection (at Northwest side of structure). Vertical crack at deck & int. wall connection (at Southwest side of structure). Transverse crack at roadway.			

COST ESTIMATE					
Emergency Opening (EO)	Type of Repair	Description of Work	Cost Summary		
	EO- AGENCY FORCES CT Work Order #(s): _____ EA(s): _____			PE	0
		CE	0		
		Construction	0		
EO- CONTRACT EO EA(s): _____		PE			
		CE			
		Construction			
<b>NOTE: Environmental documentation for EO is required. It is generally started after work has begun.</b>			R/W		
			<b>Subtotal Emergency Opening</b>	<b>\$0</b>	
Permanent Restoration (PR)	PR- CONSTRUCTION FA requires an approved PIF <input checked="" type="checkbox"/> Contract <input type="checkbox"/> FA PR EAs _____	Remove (E) damaged culvert and replace with 5' segment new box culvert.	PE	8,318	
			CE	12,478	
			Construction	103,981	
<b>NOTE: PRIOR AUTHORIZATION (APPROVED E-76) IS REQUIRED TO PROCEED WITH PERMANENT RESTORATION R/W &amp; CONSTRUCTION</b>			R/W		
<b>NOTE: Environmental clearance for permanent restoration is conducted through normal Federal-aid procedures</b>			<b>Subtotal Permanent Restoration</b>	<b>\$124,777</b>	
<b>Eligible</b>		<b>Signature</b>	<b>Date</b>	<b>PE Total</b>	<b>\$8,318</b>
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Local Agency (if applicable):	<i>[Signature]</i>	4.13.2015	CE Total	\$12,478
<input type="checkbox"/> Yes <input type="checkbox"/> No	Caltrans:	<i>[Signature]</i>	5-8-15	R/W Total	\$0
<input type="checkbox"/> Yes <input type="checkbox"/> No	FHWA*:			Construction Total	\$103,981
<b>TOTAL ESTIMATE</b>					<b>\$124,777</b>

Agency sig. Name (print): 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.**



### 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.

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.

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

Photos, Sketches, and/or Narrative



Shear crack at header on northwest side of culvert



Crack width measurement

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

DAF No.

- NAP

-

0

2

4

-

0

Sheet # 4 of 4

Federal Project # EO ER - \_\_\_\_\_ ( )

Disaster No. CA

-

PR ER - \_\_\_\_\_ ( )



Depth of crack



Close up of shear crack on SouthWest side of culvert



General view looking east toward culvert

10

2556 Greenwood Ct.

Dist 2 2012

COUNTY OF NAPA  
ROAD DEPARTMENT  
CULVERT INVENTORY

LOCATION	M.P.	SIZE	APPROX. LENGTH	TYPE OF PIPE RCP, CAP, CSP	TYPE OF HEADWALLS INLET OUTLET	CONDITION OF PIPE	WORK NEEDED / COMMENTS
DyCrk (01.43)		12"	35'	CSP/Cap	0		inlet silted 5" bank old trash
DyCrk (09.43)		12"	50'	CSP	0	fair	outlet needs little dig
DyCrk (09.50) of 404 Hwy 35 N. of AD 9.50		12"	35'	CSP/Cap?	0	fair	outlet dripping & needs
DyCrk (09.61) 1/4 N. of 4067 Hwy		10"	32'	RCP	0	poor	inlet is restricted to 4" kin. to inlet. 4" to kin. to inlet. 4" to kin. to inlet. 4" to kin. to inlet.
DyCrk (09.73) 365 ft		18"	36'	CAP	0	good	bottom badly rusted through
DyCrk (10.05) of 609 Hwy 122 N. of 09.75		24" x 22"	40'	CSP (59 wash)	0	good	bottom needs it undermining
DyCrk (09.92)		15"	50'	AP	0	good	could use riprap under outlet
DyCrk (10.02) of 625 of		12"	36'	CSP	0	good	outlet 4" silted
DyCrk (10.27)		24"	30'	CSP	0	poor	outlet mostly covered
DyCrk (10.29) side of 6165 Hwy		18"	52'	CAP	0	good	just starting to rust
DyCrk (10.35)		15" or 16"	42'	CAP	0	good	inlet a little bent
DyCrk (10.42) N. side of 6140 Hwy		12"	40'	Steel	0	good	could use riprap under outlet
DyCrk (10.43)		12"	40'	CSP	0	good	outlet silted down to 12"
DyCrk (10.48) 865 of		24"	48'	CSP	0	poor	could use riprap under outlet
DyCrk (10.50) of		24"	50'	CAP/CSP	0	good	inlet has 5" silt
DyCrk (10.51) 50 N. of		36"	50'	CAP	0	good	can't see in inlet bottom
DyCrk (10.57)		24"	40'	CAP	0	good	inlet has 5" silt
DyCrk (10.62)		15"	42'	CAP	0	good	thick rust starting in inlet
DyCrk (10.70)		15"	42'	CAP	0	good	leaves are 6" deep in outlet
DyCrk (10.75)		18" or 19"	40'	CAP	0	good	limbs need cutting back
DyCrk (10.87) 105 N. of 6186 Hwy		18" or 19"	40'	CAP	0	good	limbs need cutting back
DyCrk (10.92) 765 of 6491 Hwy		24"	40'	CAP	0	good	limbs need cutting back
DyCrk (11.03) 656 Hwy 66 N. of 11.14		18"	35'	CSP	0	good	limbs need cutting back
DyCrk (11.26) 225 of 655 Hwy 66 N. of 11.14		24"	40'	CSP/CAP	0	good	limbs need cutting back
DyCrk (11.28) 225 of		18"	40'	CAP	0	good	limbs need cutting back
DyCrk (11.43) side of Wall Rd.		30"	60'	ADS	0	good	limbs need cutting back
Silverado Trail	00.16	24" x 26"	47'	double box (ent)	0	good	limbs need cutting back
Silverado Trail	01.47	24" x 26"	47'	quad box (ent)	0	good	limbs need cutting back



Silted Log. who silt in middle (just water). E. end needs baby trees & brush against

10

DAF 24

**Damage Assessment and Recommendations Report**  
**Silverado Trail Rd MP 0.16 Culvert**  
**03/16/15**

**Damage Assessment**

Silverado Trail Culvert at MP 0.16 consists of 2 cells concrete box culverts. The existing cell is 60" tall by 72" wide.

Vertical crack at deck and exterior wall connection were observed at Northwest side of structure. Vertical crack at deck and interior wall connection at Southwest side of structure were also observed. Transverse crack was observed at roadway surface.

**Recommendations**

Culvert repairs include replacing 5' section of the existing concrete box culvert with new reinforced concrete box culvert. Excavation, backfill, and existing culvert removal will be required prior of placing the new concrete box culvert. Drill and bond dowels will be used to connect the new concrete box culvert to the existing culvert.

Cracks at roadway surface will be repaired by applying hot mix asphalt concrete.

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

<b>LOCATION</b>		
County <u>Napa County</u> Division <u>Public Works</u> District <u>2/ Item #53 &amp; #54</u>		
On Route <u>Silverado Trail</u> at Milepost <u>0.16</u> or Miles From _____		
<b>TYPE OF CULVERT</b>	<b>BARRELS</b>	
Shape <u>Box</u>	Size <u>60"x72"</u>	inlet Northing: 38.32756
Material <u>Concrete</u>	Number <u>2</u>	inlet Westing: -122.27809
Coating _____		
<b>CONDITION</b>		
Channel & Channel Protection	<u>Remarks</u>	
Channel Scour		
Embankment Erosion		
Drift		
Silt		
Vegetation		
Culvert & Retaining Walls	<u>Remarks</u>	
Barrel		
Headwall	vertical crack at ends of headwall/deck	
Wingwall		
Settlement		
Adequacy of Cover		
Roadway	<u>Remarks</u>	
Shoulders	Transverse crack across shoulder over one barrel	
Embankment		
Pavement	Transverse crack over one of the barrel	
Miscellaneous Comments		
Vertical seismic cracks located at ends of 12" wide headwall where it meets inside face of culvert wall. Approx depth, width, and length of crack measured.		

**Initial Summary of Findings:**

- Vertical crack at deck to wall connections.
- Cracks at asphalt roadway surface.

These initial findings 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.

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 24 Silverado Trail MP 0.16

PPNO: \_\_\_\_\_

Bridge No.: \_\_\_\_\_

"P" or "L"*	TOTAL COST OF WORK	FEDERAL PARTICIP. COST	FEDERAL FUND TYPE (1)	FEDERAL FUND TYPE (2)	STATE MATCH FUNDS	LOCAL MATCH FUNDS	OTHER FUNDS
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PRELIMINARY ENGINEERING							
P	\$0	\$0	100%			\$0	
P	\$8,318	\$8,318		\$7,364		\$954	
RIGHT OF WAY (R/W)							
CONSTRUCTION:		EO	PR				
Contract Items		\$0	\$83,184.75				
Utilities							
Supplemental Work			\$20,796				
Contingencies							
Trainees							
Agency/State Furn. Mat.							
Contract Total:		\$0	\$103,981	\$0	\$92,054	\$11,927	\$0
CONSTRUCTION ENGINEERING							
P	\$103,981	\$103,981				\$11,927	
CONSTRUCTION ENGINEERING							
P	\$0	\$0		\$0		\$0	
P	\$12,478	\$12,478		\$11,047		\$1,431	
TOTALS:		\$124,777	\$124,777	\$0	\$110,465	\$14,312	\$0

\* "P" = Pro Rata, "L" = Lump Sum  
 For questions regarding finance letter, contact:  
 Printed Name: MALLIKA RAMACHANDRAN, P.E.  
 Telephone No.: 707-259-8194

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 0.16, NAPA COUNTY  
 Remarks:

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