



DEPARTMENT OF TRANSPORTATION  
Structure Maintenance & Investigations

Bridge Number : 55C0176  
Facility Carried: KITTERMAN DRIVE  
Location : 0.1 MI. S/O SLVRDO CYN R  
City :  
Inspection Date : 12/14/2013

## Bridge Inspection Report

Inspection Type

Routine FC Underwater Special Other

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STRUCTURE NAME: SILVERADO CANYON CREEK

### CONSTRUCTION INFORMATION

|                    |                   |
|--------------------|-------------------|
| Year Built : 1970  | Skew (degrees): 0 |
| Year Widened: 1983 | No. of Joints : 0 |
| Length (m) : 9.1   | No. of Hinges : 0 |

Structure Description: Simply supported single span treated timber stringers (8 each) with a timber deck, all supported by masonry rock abutments.

Span Configuration : (S) 1 @ 8.8 m (N) c/c

### SAFE LOAD CAPACITY AND RATINGS

|                                     |                                               |
|-------------------------------------|-----------------------------------------------|
| Design Live Load: MS-18 OR HS-20    | Calculation Method: ALLOWABLE STRESS          |
| Inventory Rating: 19.9 metric tons  | Calculation Method: ALLOWABLE STRESS          |
| Operating Rating: 29.0 metric tons  |                                               |
| Permit Rating : PPPPP               |                                               |
| Posting Load : Type 3: <u>Legal</u> | Type 3S2: <u>Legal</u> Type 3-3: <u>Legal</u> |

### DESCRIPTION ON STRUCTURE

Deck X-Section: (W) 0.2 m br, 3.8 m, 0.2 m br (E)  
Total Width: 4.3 m      Net Width: 3.8 m      No. of Lanes: 1      Speed: 25 mph  
Min. Vertical Clearance: Unimpaired  
Rail Code: 0000      Rail Description: Timber

### DESCRIPTION UNDER STRUCTURE

Channel Description: Natural earth trapezoidal with a cobbled bottom, grouted rock slopes through the site.

### INSPECTION COMMENTARY

#### SCOPE AND ACCESS

The channel was dry, so all substructure elements were visually inspected. Pedestrian access is from any quadrant.

#### REVISIONS

ELI #111 (Timber girders): a quantity of 9 m was moved from state 2 to state 3.  
Element #215(RC Abutment): 4 m was moved from state 1 to state 2.  
Scour flag #361 was removed from ELI list.

#### MISCELLANEOUS

Photo underside of this structure was taken and is included with this report.

#### DECK AND ROADWAY

AC exhibits transverse cracks full width and 1" wide.

INSPECTION COMMENTARY

## SUPERSTRUCTURE

There is a longitudinal horizontal split up to 3 mm wide in the westerly face of the west exterior girder.

## SUBSTRUCTURE

No significant defects were found during this inspection.

| <u>ELEMENT INSPECTION RATINGS</u> |                             |       |     |                             |       |       |       |       |       |
|-----------------------------------|-----------------------------|-------|-----|-----------------------------|-------|-------|-------|-------|-------|
| Elem<br>No.                       | Element Description         | Total |     | Qty in each Condition State |       |       |       |       |       |
|                                   |                             | Env   | Qty | Units                       | St. 1 | St. 2 | St. 3 | St. 4 | St. 5 |
| 32                                | Timber Deck - w/ AC Overlay | 2     | 40  | sq.m.                       | 40    | 0     | 0     | 0     |       |
| 111                               | Timber Open Girder/Beam     | 2     | 70  | m.                          | 61    | 0     | 9     | 0     |       |
| 215                               | Reinforced Conc Abutment    | 2     | 9   | m.                          | 5     | 4     | 0     | 0     | 0     |
| 256                               | Slope Protection            | 2     | 2   | ea.                         | 0     | 2     | 0     |       |       |
| 332                               | Timber Bridge Railing       | 2     | 18  | m.                          | 18    | 0     | 0     | 0     | 0     |

WORK RECOMMENDATIONS - NONE

Team Leader : Ashraf Shenouda  
 Report Author : Ashraf Shenouda  
 Inspected By : A. Shenouda/KD. Henderson

*Ashraf Shenouda* 2/10/14  
 Ashraf Shenouda (Registered Civil Engineer) (Date)



STRUCTURE INVENTORY AND APPRAISAL REPORT

## \*\*\*\*\* IDENTIFICATION \*\*\*\*\*

(1) STATE NAME- CALIFORNIA 069  
 (8) STRUCTURE NUMBER 55C0176  
 (5) INVENTORY ROUTE (ON/UNDER)- ON 140000000  
 (2) HIGHWAY AGENCY DISTRICT 12  
 (3) COUNTY CODE 059 (4) PLACE CODE 00000  
 (6) FEATURE INTERSECTED- SILVERADO CANYON CREEK  
 (7) FACILITY CARRIED- KITTERMAN DRIVE  
 (9) LOCATION- 0.1 MI. S/O SLVRDO CYN RD  
 (11) MILEPOINT/KILOMETERPOINT 0  
 (12) BASE HIGHWAY NETWORK- NOT ON NET 0  
 (13) LRS INVENTORY ROUTE & SUBROUTE  
 (16) LATITUDE 33 DEG 44 MIN 48.22 SEC  
 (17) LONGITUDE 117 DEG 38 MIN 15.5 SEC  
 (98) BORDER BRIDGE STATE CODE % SHARE %  
 (99) BORDER BRIDGE STRUCTURE NUMBER

## \*\*\*\*\* STRUCTURE TYPE AND MATERIAL \*\*\*\*\*

(43) STRUCTURE TYPE MAIN:MATERIAL- WOOD OR TIMBER  
 TYPE- STRINGER/MULTI-BEAM OR GDR CODE 702  
 (44) STRUCTURE TYPE APPR:MATERIAL- OTHER/NA  
 TYPE- OTHER/NA CODE 000  
 (45) NUMBER OF SPANS IN MAIN UNIT 1  
 (46) NUMBER OF APPROACH SPANS 0  
 (107) DECK STRUCTURE TYPE- TIMBER CODE 8  
 (108) WEARING SURFACE / PROTECTIVE SYSTEM:  
 A) TYPE OF WEARING SURFACE- BITUMINOUS CODE 6  
 B) TYPE OF MEMBRANE- NONE CODE 0  
 C) TYPE OF DECK PROTECTION- NONE CODE 0

## \*\*\*\*\* AGE AND SERVICE \*\*\*\*\*

(27) YEAR BUILT 1970  
 (106) YEAR RECONSTRUCTED 1983  
 (42) TYPE OF SERVICE: ON- HIGHWAY 1  
 UNDER- WATERWAY 5  
 (28) LANES:ON STRUCTURE 01 UNDER STRUCTURE 00  
 (29) AVERAGE DAILY TRAFFIC 200  
 (30) YEAR OF ADT 2009 (109) TRUCK ADT 1 %  
 (19) BYPASS, DETOUR LENGTH 2 KM

## \*\*\*\*\* GEOMETRIC DATA \*\*\*\*\*

(48) LENGTH OF MAXIMUM SPAN 9.1 M  
 (49) STRUCTURE LENGTH 9.1 M  
 (50) CURB OR SIDEWALK: LEFT 0.0 M RIGHT 0.0 M  
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 3.8 M  
 (52) DECK WIDTH OUT TO OUT 4.3 M  
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 3.8 M  
 (33) BRIDGE MEDIAN- NO MEDIAN 0  
 (34) SKEW 0 DEG (35) STRUCTURE FLARED NO  
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M  
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 3.8 M  
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 99.99 M  
 (54) MIN VERT UNDERCLEAR REF- NOT H/RR 0.00 M  
 (55) MIN LAT UNDERCLEAR RT REF- NOT H/RR 0.0 M  
 (56) MIN LAT UNDERCLEAR LT 0.0 M

## \*\*\*\*\* NAVIGATION DATA \*\*\*\*\*

(38) NAVIGATION CONTROL- NOT APPLICABLE CODE N  
 (111) PIER PROTECTION- CODE  
 (39) NAVIGATION VERTICAL CLEARANCE 0.0 M  
 (116) VERT-LIFT BRIDGE NAV MIN VERT CLEAR M  
 (40) NAVIGATION HORIZONTAL CLEARANCE 0.0 M

## \*\*\*\*\*

SUFFICIENCY RATING = 52.6

STATUS FUNCTIONALLY OBSOLETE

HEALTH INDEX 90.7

PAINT CONDITION INDEX = N/A

## \*\*\*\*\* CLASSIFICATION \*\*\*\*\* CODE

(112) NBIS BRIDGE LENGTH- YES Y  
 (104) HIGHWAY SYSTEM- NOT ON NHS 0  
 (26) FUNCTIONAL CLASS- MAJOR COLLECTOR RURAL 07  
 (100) DEFENSE HIGHWAY- NOT STRAHNET 0  
 (101) PARALLEL STRUCTURE- NONE EXISTS N  
 (102) DIRECTION OF TRAFFIC- 1 LANE, 2 WAY 3  
 (103) TEMPORARY STRUCTURE-  
 (105) FED.LANDS HWY- NOT APPLICABLE 0  
 (110) DESIGNATED NATIONAL NETWORK - NOT ON NET 0  
 (20) TOLL- ON FREE ROAD 3  
 (21) MAINTAIN- COUNTY HIGHWAY AGENCY 02  
 (22) OWNER- COUNTY HIGHWAY AGENCY 02  
 (37) HISTORICAL SIGNIFICANCE- NOT ELIGIBLE 5

## \*\*\*\*\* CONDITION \*\*\*\*\* CODE

(58) DECK 7  
 (59) SUPERSTRUCTURE 5  
 (60) SUBSTRUCTURE 6  
 (61) CHANNEL & CHANNEL PROTECTION 8  
 (62) CULVERTS N

## \*\*\*\*\* LOAD RATING AND POSTING \*\*\*\*\* CODE

(31) DESIGN LOAD- MS-18 OR HS-20 5  
 (63) OPERATING RATING METHOD- ALLOWABLE STRESS 2  
 (64) OPERATING RATING- 29.0  
 (65) INVENTORY RATING METHOD- ALLOWABLE STRESS 2  
 (66) INVENTORY RATING- 19.9  
 (70) BRIDGE POSTING- EQUAL TO OR ABOVE LEGAL LOADS 5  
 (41) STRUCTURE OPEN, POSTED OR CLOSED- A  
 DESCRIPTION- OPEN, NO RESTRICTION

## \*\*\*\*\* APPRAISAL \*\*\*\*\* CODE

(67) STRUCTURAL EVALUATION 5  
 (68) DECK GEOMETRY 2  
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N  
 (71) WATER ADEQUACY 9  
 (72) APPROACH ROADWAY ALIGNMENT 6  
 (36) TRAFFIC SAFETY FEATURES 0000  
 (113) SCOUR CRITICAL BRIDGES 8

## \*\*\*\*\* PROPOSED IMPROVEMENTS \*\*\*\*\*

(75) TYPE OF WORK- SUP/SUB REHAB CODE 35  
 (76) LENGTH OF STRUCTURE IMPROVEMENT 9.1 M  
 (94) BRIDGE IMPROVEMENT COST \$38,000  
 (95) ROADWAY IMPROVEMENT COST \$7,600  
 (96) TOTAL PROJECT COST \$63,840  
 (97) YEAR OF IMPROVEMENT COST ESTIMATE 2013  
 (114) FUTURE ADT 206  
 (115) YEAR OF FUTURE ADT 2029

## \*\*\*\*\* INSPECTIONS \*\*\*\*\*

(90) INSPECTION DATE 12/13 (91) FREQUENCY 24 MO  
 (92) CRITICAL FEATURE INSPECTION: (93) CFI DATE  
 A) FRACTURE CRIT DETAIL- NO MO A)  
 B) UNDERWATER INSP- NO MO B)  
 C) OTHER SPECIAL INSP- NO MO C)