



**DEPARTMENT OF TRANSPORTATION**  
Structure Maintenance & Investigations

Bridge Number : 55C0119  
Facility Carried: TONNER CANYON ROAD  
Location : 400' S/O BREA CANYON BLV  
City :  
Inspection Date : 07/15/2011

**Bridge Inspection Report**

Inspection Type  
Routine ☒ FC ☐ Underwater ☐ Special ☐ Other ☐

**STRUCTURE NAME:** BREA CANYON CHANNEL

**CONSTRUCTION INFORMATION**

Year Built : 1971 Skew (degrees): 0  
Year Widened: N/A No. of Joints : 0  
Length (m) : 11.9 No. of Hinges : 0

Structure Description: Triple 3.7 m W x 3.0 m H x 39.6 m L RC box culvert (non-grade top)  
beneath 2.1 m of earth fill.

Span Configuration : (W) 3 @ 3.7 m (E) clear, normal

**LOAD CAPACITY AND RATINGS**

Design Live Load: MS-18 OR HS-20  
Inventory Rating: 32.6 metric tonnes Calculation Method: NO RATING ANALYSIS  
Operating Rating: 53.5 metric tonnes Calculation Method: NO RATING ANALYSIS  
Permit Rating : PPPPP  
Posting Load : Type 3: Legal Type 3S2: Legal Type 3-3: Legal

**DESCRIPTION ON STRUCTURE**

Deck X-Section: (S) 4.4 m ea, MBGR, 8.0 m ea, 14.6 m, 8.0 m ea, CL fence, 1.8 m ea (N)  
Total Width: .0 m Net Width: .0 m No. of Lanes: 4  
Rail Description: (N) Chain link fence, (S) MBGR Rail Code : 1111  
Min. Vertical Clearance: Unimpaired

**DESCRIPTION UNDER STRUCTURE**

Channel Description: RC rectangular upstream, natural earth trapezoidal downstream with heavy  
bushes and trees in the channel.

**INSPECTION COMMENTARY**

**CONDITION OF STRUCTURE**

There was 200mm of water in the channel; all elements were visually inspected.

There are 2 spalls 300 mm x 300 mm x 50 mm at 3 m of south end of wall #1.

There are 9 vertical cracks 0.5 mm wide in pier wall #3.

There are 2 horizontal cracks 2 m long and 0.5 m apart in the south end of abutment wall  
#1 and 3 horizontal cracks at 10 m from the north end.

There are bushes and trees down stream obstructed the water flow.

**ELEMENT INSPECTION RATINGS**

Elem No.	Element Description	Env	Total Qty Units	Qty in each Condition State				
				St. 1	St. 2	St. 3	St. 4	St. 5
241	Reinforced Concrete Culvert	2	40 m.	40	0	0	0	0

**WORK RECOMMENDATIONS**

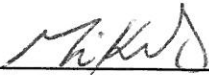
WORK RECOMMENDATIONS

RecDate: 06/05/2001  
Action : Remove Vegetation  
Work By: LOCAL AGENCY  
Status : PROPOSED

EstCost:  
StrTarget: 2 YEARS  
DistTarget:  
EA:

Remove the bushes and trees from the channel bed within 30 meters of the bridge to allow the water to flow properly.

Inspected By : MT.Zaarour/A.Shenouda

  
Mikhael T. Zaarour (Registered Civil Engineer)



STRUCTURE INVENTORY AND APPRAISAL REPORT

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

(1) STATE NAME- CALIFORNIA 069  
 (8) STRUCTURE NUMBER 55C0119  
 (5) INVENTORY ROUTE(ON/UNDER)- ON 1400W4500  
 (2) HIGHWAY AGENCY DISTRICT 12  
 (3) COUNTY CODE 059 (4) PLACE CODE 00000  
 (6) FEATURE INTERSECTED- BREA CANYON CHANNEL  
 (7) FACILITY CARRIED- TONNER CANYON ROAD  
 (9) LOCATION- 400' S/O BREA CANYON BLVD  
 (11) MILEPOINT/KILOMETERPOINT 0  
 (12) BASE HIGHWAY NETWORK- NOT ON NET 0  
 (13) LRS INVENTORY ROUTE & SUBROUTE  
 (16) LATITUDE 33 DEG 56 MIN 20.91 SEC  
 (17) LONGITUDE 117 DEG 52 MIN 39.95 SEC  
 (98) BORDER BRIDGE STATE CODE % SHARE %  
 (99) BORDER BRIDGE STRUCTURE NUMBER

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

(43) STRUCTURE TYPE MAIN:MATERIAL- CONCRETE  
 TYPE- CULVERT CODE 119  
 (44) STRUCTURE TYPE APPR:MATERIAL- OTHER/NA  
 TYPE- OTHER/NA CODE 000  
 (45) NUMBER OF SPANS IN MAIN UNIT 3  
 (46) NUMBER OF APPROACH SPANS 0  
 (107) DECK STRUCTURE TYPE- NOT APPLICABLE CODE N  
 (108) WEARING SURFACE / PROTECTIVE SYSTEM:  
 A) TYPE OF WEARING SURFACE- NOT APPLICABLE CODE N  
 B) TYPE OF MEMBRANE- NOT APPLICABLE CODE N  
 C) TYPE OF DECK PROTECTION- NOT APPLICABLE CODE N

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

(27) YEAR BUILT 1971  
 (106) YEAR RECONSTRUCTED 0000  
 (42) TYPE OF SERVICE: ON- HIGHWAY 1  
 UNDER- WATERWAY 5  
 (28) LANES:ON STRUCTURE 04 UNDER STRUCTURE 00  
 (29) AVERAGE DAILY TRAFFIC 2000  
 (30) YEAR OF ADT 2009 (109) TRUCK ADT 1 %  
 (19) BYPASS, DETOUR LENGTH 19 KM

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

(48) LENGTH OF MAXIMUM SPAN 3.7 M  
 (49) STRUCTURE LENGTH 11.9 M  
 (50) CURB OR SIDEWALK: LEFT 0.0 M RIGHT 0.0 M  
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 0.0 M  
 (52) DECK WIDTH OUT TO OUT 0.0 M  
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 14.6 M  
 (33) BRIDGE MEDIAN- CLOSED (NO BARRIER) 2  
 (34) SKEW 0 DEG (35) STRUCTURE FLARED NO  
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M  
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 14.6 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 = 82.8  
 STATUS  
 HEALTH INDEX 100.0  
 PAINT CONDITION INDEX = N/A

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

(112) NBIS BRIDGE LENGTH- YES Y  
 (104) HIGHWAY SYSTEM- NOT ON NHS 0  
 (26) FUNCTIONAL CLASS- MINOR ARTERIAL URBAN 16  
 (100) DEFENSE HIGHWAY- NOT STRAHNET 0  
 (101) PARALLEL STRUCTURE- NONE EXISTS N  
 (102) DIRECTION OF TRAFFIC- 2 WAY 2  
 (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 N  
 (59) SUPERSTRUCTURE N  
 (60) SUBSTRUCTURE N  
 (61) CHANNEL & CHANNEL PROTECTION 9  
 (62) CULVERTS 8

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

(31) DESIGN LOAD- MS-18 OR HS-20 5  
 (63) OPERATING RATING METHOD- NO RATING ANALYSIS 5  
 (64) OPERATING RATING- 53.5  
 (65) INVENTORY RATING METHOD- NO RATING ANALYSIS 5  
 (66) INVENTORY RATING- 32.6  
 (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 8  
 (68) DECK GEOMETRY N  
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N  
 (71) WATER ADEQUACY 9  
 (72) APPROACH ROADWAY ALIGNMENT 7  
 (36) TRAFFIC SAFETY FEATURES 1111  
 (113) SCOUR CRITICAL BRIDGES 8

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

(75) TYPE OF WORK- SUP/SUB REHAB CODE 35  
 (76) LENGTH OF STRUCTURE IMPROVEMENT 11.9 M  
 (94) BRIDGE IMPROVEMENT COST \$157,000  
 (95) ROADWAY IMPROVEMENT COST \$31,400  
 (96) TOTAL PROJECT COST \$263,760  
 (97) YEAR OF IMPROVEMENT COST ESTIMATE 2010  
 (114) FUTURE ADT 3544  
 (115) YEAR OF FUTURE ADT 2029

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

(90) INSPECTION DATE 07/11 (91) FREQUENCY 48 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)