



**DEPARTMENT OF TRANSPORTATION**  
Structure Maintenance & Investigations

Bridge Number : 55C0534  
Facility Carried: MEADS AVENUE  
Location : 0.3 MI E/O ORANGE PARK B  
City :  
Inspection Date : 07/13/2011

**Bridge Inspection Report**

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

**STRUCTURE NAME:** HANDY CREEK

**CONSTRUCTION INFORMATION**

Year Built : 1985 Skew (degrees): 99  
Year Widened: 1990 No. of Joints : 0  
Length (m) : 8.5 No. of Hinges : 0

Structure Description: Single span CIP/RC deck slab with RC open end diaphragm abutments,  
all supported upon concrete piles.

Span Configuration : (W) 1 @ 7.3 m (E) c/c

**LOAD CAPACITY AND RATINGS**

Design Live Load: MS-18+MOD OR HS-20+MOD  
Inventory Rating: 32.6 metric tonnes Calculation Method: LOAD FACTOR  
Operating Rating: 53.5 metric tonnes Calculation Method: LOAD FACTOR  
Permit Rating : PPPPP  
Posting Load : Type 3: Legal Type 3S2: Legal Type 3-3: Legal

**DESCRIPTION ON STRUCTURE**

Deck X-Section: (N) 0.1 m br, 2.2 m sw, 0.6 m br, 8.8 m, 0.1 m br (S)  
Total Width: 11.9 m Net Width: 8.8 m No. of Lanes: 2  
Rail Description: MBGR Rail Code : 1000  
Min. Vertical Clearance: Unimpaired

**DESCRIPTION UNDER STRUCTURE**

Channel Description: Natural earth trapezoidal.

**INSPECTION COMMENTARY**

**CONDITION OF STRUCTURE**

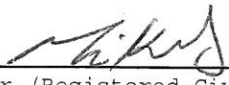
There is 500 mm deep stagnant water under the bridge and low clearance; all elements were visually inspection. No defect was found.

**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
38	Concrete Slab - Bare	2	101 sq.m.	101	0	0	0	0
215	Reinforced Conc Abutment	3	30 m.	30	0	0	0	0
252	Cast-In-Drilled Hole Concrete Pile	2	12 ea.	12	0	0	0	0
337	Metal Railing (W6X25 Posts)	2	30 m.	30	0	0	0	0

**WORK RECOMMENDATIONS** - NONE

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 55C0534  
 (5) INVENTORY ROUTE(ON/UNDER)- ON 140000000  
 (2) HIGHWAY AGENCY DISTRICT 12  
 (3) COUNTY CODE 059 (4) PLACE CODE 00000  
 (6) FEATURE INTERSECTED- HANDY CREEK  
 (7) FACILITY CARRIED- MEADS AVENUE  
 (9) LOCATION- 0.3 MI E/O ORANGE PARK BL  
 (11) MILEPOINT/KILOMETERPOINT 0  
 (12) BASE HIGHWAY NETWORK- NOT ON NET 0  
 (13) LRS INVENTORY ROUTE & SUBROUTE  
 (16) LATITUDE 33 DEG 48 MIN 26.98 SEC  
 (17) LONGITUDE 117 DEG 46 MIN 43.39 SEC  
 (98) BORDER BRIDGE STATE CODE % SHARE %  
 (99) BORDER BRIDGE STRUCTURE NUMBER

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

(43) STRUCTURE TYPE MAIN:MATERIAL- CONCRETE  
 TYPE- SLAB CODE 101  
 (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- CIP CONCRETE CODE 1  
 (108) WEARING SURFACE / PROTECTIVE SYSTEM:  
 A) TYPE OF WEARING SURFACE- NONE CODE 0  
 B) TYPE OF MEMBRANE- NONE CODE 0  
 C) TYPE OF DECK PROTECTION- NONE CODE 0

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

(27) YEAR BUILT 1985  
 (106) YEAR RECONSTRUCTED 1990  
 (42) TYPE OF SERVICE: ON- HIGHWAY-PEDESTRIAN 5  
 UNDER- WATERWAY 5  
 (28) LANES:ON STRUCTURE 02 UNDER STRUCTURE 00  
 (29) AVERAGE DAILY TRAFFIC 1000  
 (30) YEAR OF ADT 2011 (109) TRUCK ADT 1 %  
 (19) BYPASS, DETOUR LENGTH 2 KM

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

(48) LENGTH OF MAXIMUM SPAN 7.3 M  
 (49) STRUCTURE LENGTH 8.5 M  
 (50) CURB OR SIDEWALK: LEFT 0.0 M RIGHT 0.0 M  
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 8.8 M  
 (52) DECK WIDTH OUT TO OUT 11.9 M  
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 6.1 M  
 (33) BRIDGE MEDIAN- NO MEDIAN 0  
 (34) SKEW 99 DEG (35) STRUCTURE FLARED NO  
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M  
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 8.8 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 \*\*\*\*\*

SUFFICIENCY RATING = 89.6

## 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- COLLECTOR URBAN 17  
 (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 7  
 (59) SUPERSTRUCTURE 7  
 (60) SUBSTRUCTURE 7  
 (61) CHANNEL & CHANNEL PROTECTION 8  
 (62) CULVERTS N

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

(31) DESIGN LOAD- MS-18+MOD OR HS-20+MOD 6  
 (63) OPERATING RATING METHOD- LOAD FACTOR 1  
 (64) OPERATING RATING- 53.5  
 (65) INVENTORY RATING METHOD- LOAD FACTOR 1  
 (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 7  
 (68) DECK GEOMETRY 5  
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N  
 (71) WATER ADEQUACY 8  
 (72) APPROACH ROADWAY ALIGNMENT 5  
 (36) TRAFFIC SAFETY FEATURES 1000  
 (113) SCOUR CRITICAL BRIDGES 8

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

(75) TYPE OF WORK- CODE  
 (76) LENGTH OF STRUCTURE IMPROVEMENT M  
 (94) BRIDGE IMPROVEMENT COST  
 (95) ROADWAY IMPROVEMENT COST  
 (96) TOTAL PROJECT COST  
 (97) YEAR OF IMPROVEMENT COST ESTIMATE  
 (114) FUTURE ADT 1282  
 (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)