



DEPARTMENT OF TRANSPORTATION  
Structure Maintenance & Investigations

Bridge Number : 55C0168  
Facility Carried: AMAPOLA AVENUE  
Location : 0.2 MI E/O ORANGE PK BLV  
City :  
Inspection Date : 05/18/2012

## Bridge Inspection Report

Inspection Type  
Routine FC Underwater Special Other  
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STRUCTURE NAME: HANDY CREEK

### CONSTRUCTION INFORMATION

Year Built : 1937	Skew (degrees): 0
Year Widened: N/A	No. of Joints : 0
Length (m) : 8.5	No. of Hinges : 0

Structure Description: Simply supported two span timber stringers (19 each) and timber deck with a timber treated timber post (6 each) bent and a treated timber post (6 each) abutments, all supported upon treated timber sills. All timber treated Douglas Fir.

Span Configuration : (W) 2 @ 4.0 m (E) c/c

### LOAD CAPACITY AND RATINGS

Design Live Load: UNKNOWN		
Inventory Rating: 17.5 metric tonnes	Calculation Method: ALLOWABLE STRESS	
Operating Rating: 24.9 metric tonnes	Calculation Method: ALLOWABLE STRESS	
Permit Rating : 00000		
Posting Load : Type 3: <u>Legal</u>	Type 3S2: <u>Legal</u>	Type 3-3: <u>Legal</u>

### DESCRIPTION ON STRUCTURE

Deck X-Section: (S) 0.1 m br, 7.2 m, 0.1 m br (N)		
Total Width: 7.3 m	Net Width: 7.1 m	No. of Lanes: 2
Rail Description: MBGR		Rail Code : 1000
Min. Vertical Clearance: Unimpaired		

### DESCRIPTION UNDER STRUCTURE

Channel Description: Natural earth trapezoidal upstream, RC rectangular with a check dam downstream.

### INSPECTION COMMENTARY

#### CONDITION OF STRUCTURE

The northwest end rail is loose.

East abutment timber plank is deteriorated at 200 mm from the bottom and there is a bush growing at the north side of the abutment between timber planks.

There is sign of debris at the bent cap of Abutment 1. It may indicate that the waterway is not sufficient.

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

ELEMENT INSPECTION RATINGS

Elem No.	Element Description	Env	Total		Qty in each Condition State				
			Qty	Units	St. 1	St. 2	St. 3	St. 4	St. 5
32	Timber Deck - w/ AC Overlay	2	60	sq.m.	60	0	0	0	0
111	Timber Open Girder/Beam	2	161	m.	161	0	0	0	0
206	Timber Column or Pile Extension	3	18	ea.	0	18	0	0	0
216	Timber Abutment	3	16	m.	0	12	4	0	0
235	Timber Cap	2	21	m.	0	21	0	0	0
337	Metal Railing (W6X25 Posts)	2	18	m.	18	0	0	0	0

WORK RECOMMENDATIONS

RecDate: 05/18/2012

EstCost:

Replace the deteriorated timber plank at

Action : Sub-Patch spalls

StrTarget: 2 YEARS

200 mm from the bottom and remove the

Work By: LOCAL AGENCY

DistTarget:

bush at the north side of the abutment

Status : PROPOSED

EA:

between timber planks.

CHANNEL X-SECTION


Side : Upstream

X-Section Date: 05/18/2012

Measured From : top of deck (S)

Location	Horiz (m)	Vert (m)	Comments
abut 1	0.00	2.03	face of abut 1
	1.15	2.38	
	1.70	2.65	edge of water
bent 2	-0.20	3.12	W. side of bent cap
	0.00	3.45	center line
	0.20	3.12	E. side of the bent cap
	1.94	3.25	thalweg
abut 3	0.00	2.96	face of abut 3

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 55C0168  
 (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- AMAPOLA AVENUE  
 (9) LOCATION- 0.2 MI E/O ORANGE PK BLVD  
 (11) MILEPOINT/KILOMETERPOINT 0  
 (12) BASE HIGHWAY NETWORK- NOT ON NET 0  
 (13) LRS INVENTORY ROUTE & SUBROUTE  
 (16) LATITUDE 33 DEG 48 MIN 09 SEC  
 (17) LONGITUDE 117 DEG 46 MIN 46 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 2  
 (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 1937  
 (106) YEAR RECONSTRUCTED 0000  
 (42) TYPE OF SERVICE: ON- HIGHWAY 1  
 UNDER- WATERWAY 5  
 (28) LANES:ON STRUCTURE 02 UNDER STRUCTURE 00  
 (29) AVERAGE DAILY TRAFFIC 1000  
 (30) YEAR OF ADT 2009 (109) TRUCK ADT 1 %  
 (19) BYPASS, DETOUR LENGTH 2 KM

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

(48) LENGTH OF MAXIMUM SPAN 4.0 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 7.1 M  
 (52) DECK WIDTH OUT TO OUT 7.3 M  
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 6.7 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 6.7 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 = 50.1  
 STATUS  
 HEALTH INDEX 85.5  
 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 5  
 (61) CHANNEL & CHANNEL PROTECTION 8  
 (62) CULVERTS N

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

(31) DESIGN LOAD- UNKNOWN 0  
 (63) OPERATING RATING METHOD- ALLOWABLE STRESS 2  
 (64) OPERATING RATING- 24.9  
 (65) INVENTORY RATING METHOD- ALLOWABLE STRESS 2  
 (66) INVENTORY RATING- 17.5  
 (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 4  
 (68) DECK GEOMETRY 4  
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N  
 (71) WATER ADEQUACY 7  
 (72) APPROACH ROADWAY ALIGNMENT 6  
 (36) TRAFFIC SAFETY FEATURES 1000  
 (113) SCOUR CRITICAL BRIDGES 5

## \*\*\*\*\* 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 2061  
 (115) YEAR OF FUTURE ADT 2029

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

(90) INSPECTION DATE 05/12 (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)