



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 55C0049
Facility Carried: SANTIAGO CANYON RD
Location : 0.3 MI S/O MODJESKA RD
City :
Inspection Date : 05/13/2011

Bridge Inspection Report

Inspection Type

Routine	FC	Underwater	Special	Other
☒	☐	☐	☐	☐

STRUCTURE NAME: SANTIAGO CREEK

CONSTRUCTION INFORMATION

Year Built : 1967	Skew (degrees): 18
Year Widened: N/A	No. of Joints : 1
Length (m) : 60	No. of Hinges : 0

Structure Description: Continuous three span CIP/RC T-beam (5 each) with RC single column bents and RC open end seat abutments, all supported upon spread footings.

Span Configuration : (S) 18.0 m, 24.8 m, 18.0 m (N) c/c

LOAD CAPACITY AND RATINGS

Design Live Load: MS-18 OR HS-20		
Inventory Rating: 40.8 metric tonnes	Calculation Method: LOAD FACTOR	
Operating Rating: 68 metric tonnes	Calculation Method: LOAD FACTOR	
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) ~~0.5 m br, 9.0 m, 0.5 m br~~ (E) **(W) 0.55 m br, 9.9 m, 0.55 m br (E)**

Total Width: ~~10.1 m~~ **11.0 m** Net Width: ~~9.0 m~~ **9.9 m** No. of Lanes: 2

Rail Description: Type 25 mod. Rail Code : 1111

Min. Vertical Clearance: Unimpaired

DESCRIPTION UNDER STRUCTURE

Channel Description: Natural earth trapezoida with a cobbled bottom.

CONDITION TEXT

CONDITION OF STRUCTURE

There is 0.3 m deep and 2 m wide water in the channel; all elements were visually inspection.

The joint seal at Abutment 4 is dry and 3 m is missing.

There are water stains at Abutment 4 wall (north).

There are short transverse soffit cracks 0.5 mm wide and 0.5 m long, and some hairline longitudinal cracks 1 m long with white efflorescence.

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
12	Concrete Deck - Bare	2	590	sq.m.	590	0	0	0	0
110	Reinforced Conc Open Girder/Beam	2	300	m.	300	0	0	0	0
205	Reinforced Conc Column or Pile Extension	2	2	ea.	2	0	0	0	0
215	Reinforced Conc Abutment	2	22	m.	22	0	0	0	0
234	Reinforced Conc Cap	2	18	m.	18	0	0	0	0
301	Pourable Joint Seal	2	12	m.	12	0	0	0	0
312	Enclosed/Concealed Bearing	2	2	ea.	2	0	0	0	0
331	Reinforced Conc Bridge Railing	2	146	m.	146	0	0	0	0
358	Deck Cracking	2	1	ea.	1	0	0	0	0
359	Soffit of Concrete Deck or Slab	2	1	ea.	0	1	0	0	0

WORK RECOMMENDATIONS

RecDate: 05/13/2011

Action : Joints-Replace

Work By: LOCAL AGENCY

Status : PROPOSED

EstCost:

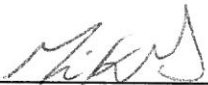
StrTarget: 2 YEARS

DistTarget:

EA:

Replace the joint seal at Abutment 4
(north) which is dry and 3 m is missing.

Inspected By : MT.Zaarour/M.Zolfaghari


 Mikhael T. Zaarour. (Registered Civil Engineer)

CC:



STRUCTURE INVENTORY AND APPRAISAL REPORT

***** IDENTIFICATION *****

(1) STATE NAME- CALIFORNIA 069
 (8) STRUCTURE NUMBER 55C0049
 (5) INVENTORY ROUTE(ON/UNDER)- ON 1400L0300
 (2) HIGHWAY AGENCY DISTRICT 12
 (3) COUNTY CODE 059 (4) PLACE CODE 00000
 (6) FEATURE INTERSECTED- SANTIAGO CREEK
 (7) FACILITY CARRIED- SANTIAGO CANYON RD
 (9) LOCATION- 0.3 MI S/O MODJESKA RD
 (11) MILEPOINT/KILOMETERPOINT 0
 (12) BASE HIGHWAY NETWORK- PART OF NET 1
 (13) LRS INVENTORY ROUTE & SUBROUTE 000000L03000
 (16) LATITUDE 33 DEG 42 MIN 46.36 SEC
 (17) LONGITUDE 117 DEG 38 MIN 42.97 SEC
 (98) BORDER BRIDGE STATE CODE % SHARE %
 (99) BORDER BRIDGE STRUCTURE NUMBER

***** STRUCTURE TYPE AND MATERIAL *****

(43) STRUCTURE TYPE MAIN:MATERIAL- CONCRETE CONT
 TYPE- TEE BEAM CODE 204
 (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- 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 1967
 (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 6000
 (30) YEAR OF ADT 2002 (109) TRUCK ADT 3 %
 (19) BYPASS, DETOUR LENGTH 2 KM

***** GEOMETRIC DATA *****

(48) LENGTH OF MAXIMUM SPAN 23.8 M
 (49) STRUCTURE LENGTH 60.0 M
 (50) CURB OR SIDEWALK: LEFT 0.0 M RIGHT 0.0 M
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 9.0 M
 (52) DECK WIDTH OUT TO OUT 10.1 M
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 12.5 M
 (33) BRIDGE MEDIAN- NO MEDIAN 0
 (34) SKEW 18 DEG (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 9.0 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 = 80.3
 STATUS FUNCTIONALLY OBSOLETE
 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- OTHER PRIN ART URBAN 14
 (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 6
 (59) SUPERSTRUCTURE 7
 (60) SUBSTRUCTURE 7
 (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- LOAD FACTOR 1
 (64) OPERATING RATING- 68
 (65) INVENTORY RATING METHOD- LOAD FACTOR 1
 (66) INVENTORY RATING- 40.8
 (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 2 **4**
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N
 (71) WATER ADEQUACY 9
 (72) APPROACH ROADWAY ALIGNMENT 8
 (36) TRAFFIC SAFETY FEATURES 1111
 (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 12365
 (115) YEAR OF FUTURE ADT 2029

***** INSPECTIONS *****

(90) INSPECTION DATE 05/11 (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)