DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 10C0065
Facility Carried: N STATE ST
Location : 0.2 MI N ORR SPRINGS RD
City :
Inspection Date : 04/17/2008

Bridge Inspection Report

Inspection Type

Routine	FC	Underwater	Special	Other
X				

STRUCTURE NAME: ACKERMAN CREEK

CR 104
M.P. 0.97

CONSTRUCTION INFORMATION

Year Built : 1965
Year Widened: N/A
Length (m) : 45.4

Skew (degrees): 0
No. of Joints : 0
No. of Hinges : 0

Structure Description: Continuous reinforced concrete flat slab on concrete solid pierwalls and seat abutments. All on reinforced concrete piles.

Span Configuration : 3 @ 14.8 m

LOAD CAPACITY AND RATINGS

Design Live Load: M-18 OR H-20
Inventory Rating: 32.7 metric tons Calculation Method: LOAD FACTOR
Operating Rating: 54 metric tons Calculation Method: LOAD FACTOR
Permit Rating : PPPPP
Posting Load : Type 3 N/A Type 3S2 N/A Type 3-3 N/A

DESCRIPTION ON STRUCTURE

Deck X-Section: 0.35 m br, 0.6 m sw, 8.5 m, 0.6 m sw, 0.35 m br
Total Width: 10.4 m Net Width: 8.5 m No. of Lanes: 2
Rail Description: Type 2 Rail Code : 1000
Min. Vertical Clearance: Unimpaired

DESCRIPTION UNDER STRUCTURE

Channel Description: Silty sand and gravel, braided stream, many large bushes in channel.

CONDITION TEXT

REVISIONS

Element 310, Elastomeric Bearings: Added 12 ea to account for the elastomeric bearing pads at each abutment.

CONDITION OF STRUCTURE

The water was 12" deep and flowing through Span 2. Both abutments and Pier 2 were out of the water. All elements were inspected.

There is alligator cracking in the AC at the approach and near Abutment 4 on the deck.

There are a number of 1/2" wide AC longitudinal and transverse cracks varying from short to 20' long throughout the AC on the slab. The cracking is more prominent in the southbound lanes and adjacent to Abutment 4. There are a few 6" diameter potholes in the southbound lanes.

There is a 2' long x 1/2" wide crack extending from the shear key at the far left side of Abutment 4 with a 2' x 2' area of delaminated concrete. There is also a 6" x 6" spall of similar nature at the adjacent shear key. The cracks and spalls are caused by movement of the bridge at the abutments and are not an issue at this time.

There is water staining on the Abutment 4 face extending down from the shear keys.

CONDITION TEXT

There are hairline to 1/32" wide longitudinal soffit cracks in both spans emanating from the piers and extending out to the 1/4 span. There are hairline transverse cracks at 6" spacing in the middle 2/3 of the span in both spans. There are also full width pattern cracks as close as a 4" spacing at the midspan in both spans.

SCOUR

There is a localized scour hole at the upstream (left) side of Pier 3 with approximately 1/2 cubic yard of debris. The footing is exposed the whole length of Pier 3, with 2.5' of vertical exposure on the upstream side. The footing is undermined 12" transversely at the left side of Pier 3.

There is a check dam approximately 30' downstream.

ELEMENT INSPECTION RATINGS

F#	Elem	Element Description	Env	Total Qty	Units	Qty in each Condition State St. 1	St. 2	St. 3	St. 4	St. 5
101	39	Concrete Slab - Unprotected w/ AC Overlay	2	390	sq.m.	0	390	0	0	0
101	210	Reinforced Conc Pier Wall	2	21	m.	21	0	0	0	0
101	215	Reinforced Conc Abutment	2	21	m.	20	1	0	0	
101	227	Reinforced Conc Submerged Pile	2	1	ea.	1	0	0	0	0
101	310	Elastomeric Bearing	2	12	ea.	12	0	0	0	0
101	333	Other Bridge Railing	2	115	m.	115	0	0	0	0
101	359	Soffit of Concrete Deck or Slab	2	1	ea.	0	1	0	0	0

WORK RECOMMENDATIONS - NONE

Inspected By : J.Gillis

Registered Civil Engineer

REGISTERED PROFESSIONAL ENGINEER
JOHN ANDREW GILLIS
No. C47311
Exp. 12/31/09
CIVIL
STATE OF CALIFORNIA

STRUCTURE INVENTORY AND APPRAISAL REPORT

********** IDENTIFICATION **********

(1) STATE NAME- CALIFORNIA 069
(8) STRUCTURE NUMBER **10C0065**
(5) INVENTORY ROUTE(ON/UNDER)- ON 1400Z5360
(2) HIGHWAY AGENCY DISTRICT 01
(3) COUNTY CODE 045 (4) PLACE CODE 00000
(6) FEATURE INTERSECTED- ACKERMAN CREEK
(7) FACILITY CARRIED- N STATE ST
(9) LOCATION- 0.2 MI N ORR SPRINGS RD
(11) MILEPOINT/KILOMETERPOINT 0
(12) BASE HIGHWAY NETWORK- NOT ON NET 0
(13) LRS INVENTORY ROUTE & SUBROUTE
(16) LATITUDE 39 DEG 10 MIN 44 SEC
(17) LONGITUDE 123 DEG 12 MIN 36 SEC
(98) BORDER BRIDGE STATE CODE % SHARE %
(99) BORDER BRIDGE STRUCTURE NUMBER

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

(43) STRUCTURE TYPE MAIN:MATERIAL- CONCRETE CONT
TYPE- SLAB CODE 201
(44) STRUCTURE TYPE APPR:MATERIAL- NOT APPLICABLE
TYPE- NOT APPLICABLE CODE
(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- BITUMINOUS CODE 6
B) TYPE OF MEMBRANE- NONE CODE 0
C) TYPE OF DECK PROTECTION- NONE CODE 0

********** AGE AND SERVICE **********

(27) YEAR BUILT 1965
(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 8000
(30) YEAR OF ADT 1970 (109) TRUCK ADT 5 %
(19) BYPASS, DETOUR LENGTH 6 KM

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

(48) LENGTH OF MAXIMUM SPAN 14.9 M
(49) STRUCTURE LENGTH 45.4 M
(50) CURB OR SIDEWALK: LEFT 0.6 M RIGHT 0.6 M
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 8.5 M
(52) DECK WIDTH OUT TO OUT 10.4 M
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 8.5 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 8.5 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- NO CONTROL CODE 0
(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

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SUFFICIENCY RATING = 75.1
STATUS FUNCTIONALLY OBSOLETE
HEALTH INDEX 97.2
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- 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 5
(59) SUPERSTRUCTURE 6
(60) SUBSTRUCTURE 7
(61) CHANNEL & CHANNEL PROTECTION 7
(62) CULVERTS N

********* LOAD RATING AND POSTING ********* CODE

(31) DESIGN LOAD- M-18 OR H-20 4
(63) OPERATING RATING METHOD- LOAD FACTOR 1
(64) OPERATING RATING- 54.0
(65) INVENTORY RATING METHOD- LOAD FACTOR 1
(66) INVENTORY RATING- 32.7
(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 6
(68) DECK GEOMETRY 2
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N
(71) WATER ADEQUACY 8
(72) APPROACH ROADWAY ALIGNMENT 8
(36) TRAFFIC SAFETY FEATURES 1000
(113) SCOUR CRITICAL BRIDGES 5

********** PROPOSED IMPROVEMENTS **********

(75) TYPE OF WORK- MISC STRUCTURAL WORK CODE 38
(76) LENGTH OF STRUCTURE IMPROVEMENT 45.4 M
(94) BRIDGE IMPROVEMENT COST $567,000
(95) ROADWAY IMPROVEMENT COST $57,000
(96) TOTAL PROJECT COST $850,000
(97) YEAR OF IMPROVEMENT COST ESTIMATE 1999
(114) FUTURE ADT 10652
(115) YEAR OF FUTURE ADT 2029

********** INSPECTIONS **********

(90) INSPECTION DATE 04/08 (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)