



Bridge Number : 23 0015L
Facility Carried: I 80 WB
Location : 04-SOL-080-.01
City :
Inspection Date : 09/15/2004

Bridge Inspection Report

Inspection Type
Routine Group A Underwater Special Other

STRUCTURE NAME: CARQUINEZ LT

CONSTRUCTION INFORMATION

Year Built : 1927 Skew (degrees): 0
Year Widened: 1959 No. of Joints : ***
Length (m) : 1619.7 No. of Hinges :

Structure Description: Double cantilever through riveted steel truss with RC deck supported by steel towers on RC caisson piers founded on bedrock and RC piers bearing on RC piles. Approach spans on south side only consist of steel plate girder, floor beam and stringer system with RC deck on single hollow shaft column bents on steel piles.

Span Configuration : 5 (on main str.) - 2 @ 335.3m, 2 @ 152.4m, 1 @ 45.7m; 13 (on appr. str.) 14m min, 57.9m max, and various; 9 (on ramp) 30.5m min, 38.1m max, and various; 11 (off ramp) 14.0m min, 57.3m max, and various.

LOAD CAPACITY AND RATINGS

Design Live Load: OTHER OR UNKNOWN
Inventory Rating: 27.2 metric tons Calculation Method: LOAD FACTOR
Operating Rating: 58 metric tons Calculation Method: LOAD FACTOR
Permit Rating : P P P P P
Posting Load : Type 3 N/A Type 3S2 N/A Type 3-3 N/A

DESCRIPTION ON STRUCTURE

Deck X-Section: .55m cu - 3 @ 3.48m - .55m cu
Total Width: 11.8 m Net Width: 10.4 m No. of Lanes: 3
Rail Description: Rail Code : 1111
Min. Vertical Clearance: 4.880

DESCRIPTION UNDER STRUCTURE

Facility Name	Func Cla	Lanes	Horiz Cl	Vert Clr
SAN PABLO	09	14	12.2	7.62

Channel Description: Bay Mud

CONDITION TEXT

HISTORY:

The 1927 Carquinez bridge is scheduled for demolition within the next two years. It will serve as a temporary Eastbound bridge while the 1957 East bridge approaches are re-decked. Lead-based paint thickness has to be surveyed prior to removal.

SCOPE:

The truss members were checked for paint thickness by ABME's J. Hanson, R. Hugel and A. Asmar on 9/15/2004. Samples were randomly tested from N0 to S30. An elcometer 345 thickness meter was used.

CONDITION OF STRUCTURE:

The paint thickness varies widely, depending on surface preparation. Surface corrosion and grit are trapped in the paint throughout the truss surfaces. The survey focused on

CONDITION TEXT

clean painted surfaces. See attached chart for readings, and attached bridge drawings for locations.

Inspected By : Joe Hanson

Registered Civil Engineer

CC: Dist 04
SM&I-HQ



1927 Carquinez Bridge Paint Thickness Survey
9/15/04

ABME's: J. Hanson; R. Hugel, A. Asmar

<u>Location</u> <u>West/East</u>	<u>Member</u>	<u>Paint</u> <u>Thickness(mils)</u>	<u>Location</u> <u>West/East</u>	<u>Member</u>	<u>Paint</u> <u>Thickness(mils)</u>
N1W	Vertical	30.7	S40W	Vertical	19
N1W	Railing	18.1	S40W	Railing	12
N4W	Vertical	42.6	S40W	Diagonal	10
N4W	Railing	14.2	S38W	Vertical	11
N6W	Vertical	34.6	S38W	Railing	7
N6W	Railing	14.5	S38W	Diagonal	8
N8W	Vertical	32.3	S40W	Up Chord	13
N8W	Diagonal	23	S40W	Up Lateral	38
N12W	Vertical	37.3	S40W	Top Strut	48
N12W	Railing	10.1	S42W	Top Strut	7
N12W	Diagonal	34.3	S42W	Up Lateral	31
N14W	Vertical	39	S42W	Up Chord	9
N14W	Railing	14.9	S44W	Up Eyebars	11
N18W	Vertical	22	S44W	Up Lateral	29.6
N18W	Railing	14	S46W	Top Strut	23.4
N18W	Diagonal	12	S46W	Up Lateral	16.6
			S46W	Up Eyebars	9.2
N18E	Vertical	11.8			
N18E	Railing	18	S40E	Vertical	23.7
N18E	Diagonal	25	S40E	Railing	10.5
N16E	Vertical	14	S40E	Diagonal	25
N16E	Railing	16	S36E	Vertical	15
N16E	Diagonal	12	S36E	Railing	13
N14E	Vertical	14	S36E	Low Chord	35
N14E	Lwr Chord	39.6	S34E	Vertical	28
N14E	Diagonal	36	S34E	Railing	16
N12E	Vertical	10	S34E	Diagonal I-bar	20
N12E	Railing	31	S32E	Vertical	22
N12E	Diagonal	49.3	S32E	Railing	19
N12E	Lwr Chord	40	S32E	Diagonal	17
N10E	Railing	10	S30E	Low Chord	32.5
N10E	Diagonal	22	S30E	Batten Plate	24.5
N8E	Vertical	40			
N8E	Railing	10			
N8E	Diagonal	27			
N6E	Lwr Chord	47			
N4E	Vertical	37			
N4E	Railing	10			
N4E	Diagonal	22			
N2E	Low Chord	27.6			

N= North
S= South
E= East
W= West