



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 55C0172
Facility Carried: MODJESKA CANYON RD
Location : 0.1 MI N/O MODJESKA GR R
City :
Inspection Date : 05/28/2014
Inspection Type
Routine ☒ FC Underwater Special Other

Bridge Inspection Report

STRUCTURE NAME: SANTIAGO CREEK

CONSTRUCTION INFORMATION

Year Built : 1935 Skew (degrees): 68
Year Widened: N/A No. of Joints : 0
Length (m) : 19.5 No. of Hinges : 0

Structure Description: CIP/RC deck on riveted steel floor beams (5) on simply supported riveted steel through girders (2) on RC pedestals on RC closed end backfilled cantilever abutments on spread footings.

Span Configuration : (S) 1 @ 18.3 m (N) c/c

SAFE LOAD CAPACITY AND RATINGS

Design Live Load: M-13.5 OR H-15
Inventory Rating: 17.2 metric tons Calculation Method: ALLOWABLE STRESS
Operating Rating: 25.4 metric tons Calculation Method: ALLOWABLE STRESS
Permit Rating : GGGGG
Posting Load : Type 3: Legal Type 3S2: Legal Type 3-3: Legal

DESCRIPTION ON STRUCTURE

Deck X-Section: (W) Steel plate girder, 0.7 m cu, 2 @ 3.0 m, 0.7 m cu, steel plate girder (E)

Total Width: 7.3 m Net Width: 6.1 m No. of Lanes: 2 Speed: 25 mph
Min. Vertical Clearance: Unimpaired

Rail Code: 0000 Rail Description: Steel plate girder

DESCRIPTION UNDER STRUCTURE

Channel Description: Natural earth trapezoidal.

INSPECTION COMMENTARY

SCOPE AND ACCESS

A fracture critical member inspection was performed on 05/28/2014 by Carlos Villalobos and Anousheh Rouzbehani from the Office of Specialty Investigations and Bridge Management.

The structure was accessed with a ladder from the ground below. Lane closures and traffic control were not needed.

The investigation was conducted in accordance with the Fracture Critical Member Inspection Plan, dated 05/21/2008.

SUPERSTRUCTURE

A hands-on visual inspection was performed on the tension stress areas of the left and right girders. No fractures or cracks were found.

During the 05/21/2008 fracture critical member inspection, up to 19 mm (3/4 in) of pack rust was found between the bottom flange plates of the left and right girders at the following locations:

INSPECTION COMMENTARY

- Girder 1 to Floor Beam 3 connection
- Girder 1 to Floor Beam 5 connection
- Girder 2 to Floor Beam 2 connection
- Girder 2 to Floor Beam 4 connection

No increase in corrosion has occurred at these locations. These areas will continue to be monitored for any significant increase in corrosion during the next scheduled fracture critical member inspection.

STEEL INVESTIGATIONS

This structure qualifies for an in-depth Steel investigation because it possesses the following fracture critical or fatigue prone details :

Plate Girder: FC Members

Fracture Critical: Yes

Inspection Freq.: 24

Next Inspection: 05/28/2016

Team Leader : Carlos Villalobos
Report Author : Carlos Villalobos
Inspected By : C.Villalobos/A.Rouzbehan

Carlos F. Villalobos 9.15.2014
Carlos Villalobos (Registered Civil Engineer) (Date)

