



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 55C0174
Facility Carried: SILVERADO CANYON RD.
Location : 1.6 MI E/O SANTIAGO ROAD
City :
Inspection Date : 07/25/2012
Inspection Type
Routine ☒ FC Underwater Special Other

Bridge Inspection Report

STRUCTURE NAME: SILVERADO CANYON CREEK

CONSTRUCTION INFORMATION

Year Built : 1935 Skew (degrees): 36
Year Widened: N/A No. of Joints : 0
Length (m) : 17.7 No. of Hinges : 0

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

Span Configuration : (W) 1 @ 15.5 m (E) c/c

LOAD CAPACITY AND RATINGS

Design Live Load: M-13.5 OR H-15
Inventory Rating: 24.5 metric tons Calculation Method: LOAD FACTOR
Operating Rating: 37.2 metric tons Calculation Method: LOAD FACTOR
Permit Rating : GGGGG
Posting Load : Type 3: Legal Type 3S2: Legal Type 3-3: Legal

DESCRIPTION ON STRUCTURE

Deck X-Section: (S) 0.7 m cu, 7.0 m, 0.7 m cu, 1.2 m sw (N)
Total Width: 9.7 m Net Width: 7.0 m No. of Lanes: 2 Speed: 45 mph
Min. Vertical Clearance: Unimpaired
Rail Code: 0000 Rail Description: Steel plate girder

DESCRIPTION UNDER STRUCTURE

Channel Description: Natural earth trapezoidal with a cobbled bottom.

INSPECTION COMMENTARY

FRACTURE CRITICAL INVESTIGATION

A fracture critical inspection was performed on 07/25/2012 by Jeff Yang from the Office of Specialty Investigations and Bridge Management. The structure was accessed from the ground below. The investigation was conducted in accordance with the Fracture Critical Member Inspection Plan, dated 05/21/2008.

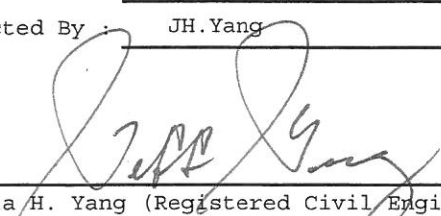
A hands-on visual inspection was performed on the tension stress areas of the left and right girders. No fractures or cracks were found.

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: 07/25/2014

Team Leader : Jia H. Yang
Report Author : Jia H. Yang
Inspected By : JH. Yang

Jia H. Yang (Registered Civil Engineer) 11/2/12



SILVERADO CANYON CREEK

1.6 MI E/O SANTIAGO ROAD

07/25/2012 [AAAM]

55C0174

100 - PHOTO-Routine-Roadway View



Photo No. 1

Roadway view of bridge - looking west

101 - PHOTO-Routine-Elevation View



Photo No. 2

Elevation view of bridge - looking north

SILVERADO CANYON CREEK

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135 - PHOTO-Routine-Underside



Photo No. 3

Bridge underside view

108 - PHOTO-Super-Details



Photo No. 4

Detail of typical steel girder