

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018448**Date Inspected:** 03-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC)**Location:** Shanghai, China**CWI Name:** Li Yang and Zhu Zhong Hai**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Trial Assembly**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly Areas

Segment 11DW to Segment 11EW (Longitudinal Diaphragm to Longitudinal Diaphragm)

This QA Inspector performed Dimension Control Inspection along with Caltrans QA Inspector Mr. Murugan Manikandan on the Longitudinal Diaphragm to Longitudinal Diaphragm at Work Point W3 (Counter Weight side) and at Work Point W4 (Cross Beam side) for the Segment 11DW to Segment 11EW between Panel Point (PP) 106 to PP 107 at the following locations:

The offset was measured at 5 (five) different locations in which 2 (Two) locations were at Flange area and 3 (Three) locations were at Web area. The QA Inspector measured the Offset using 1(One) Meter Straight Edge.

The Sweep was measured at 100 mm from both sides of the Floor Beam and 800mm from both sides of floor Beam and at Center (Total 5 Locations) using string line.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the

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Lead Inspector and Engineer for review and disposition.

Segment 11DE to Cross Beam (CB) # 16

This QA Inspector performed Dimension Control Inspection along with Caltrans QA Inspector for measuring offset between the stiffeners at floor beam (FL3) extension at Segment 11DE to Cross Beam # 16 stiffeners at bottom panel, vertical web plate and deck plate at following locations:

At Panel Point (PP) 104, Segment 11DE offset measurement performed between floor beam stiffeners to west side Vertical Web Plate stiffeners of cross beam # 16 total 13 stiffeners.

At Panel Point (PP) 105, Segment 11DE offset measurement performed between floor beam stiffeners to centre Vertical Web Plate stiffeners of cross beam # 16, total 13 stiffeners.

At Panel Point (PP) 106, Segment 11DE offset measurement performed between floor beam stiffeners to east side Vertical Web Plate stiffeners of cross beam # 16, total 13 stiffeners.

Between Panel Points (PP) 104 to PP 105, Segment 11DE offset measurement performed between deck panel stiffeners to deck panel stiffeners of cross beam # 16, total 11 stiffeners.

Between Panel Points (PP) 105 to PP 106, Segment 11DE offset measurement performed between deck panel stiffeners to deck panel stiffener of cross beam # 16, total 11 stiffeners.

Between Panel Points (PP) 104 to PP 105, Segment 11DE offset measurement performed between bottom panel stiffeners to bottom panel stiffeners of cross beam # 16, total 5 stiffeners.

Between Panel Points (PP) 105 to PP 106, Segment 11DE offset measurement performed between bottom panel stiffeners to bottom panel stiffener of cross beam # 16, total 5 stiffeners.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Bike Path at Bay # 19

This QA Inspector performed Dimension Control Inspection on the Bike Path bottom panel for flatness check across the longitudinal butt weld. Flatness check was performed on following mentioned Bike Paths and Bike Path are identified as:

BK004A-007

BK004A-009

The QA Inspector measured the flatness using 600mm long straight edge and observed flatness dimensions out of allowable tolerance.

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The results of the inspection were informed to Caltrans Lead Inspector Mr. Mark Miller and Mr. Hiranch Patel.

Lift 11 East, Suspender Brackets (Faying Surface Gap Measurements)

This Quality Assurance (QA) Inspector verified and measured the gap between the faying surfaces of Deck Panel Corner Assembly to Suspender Bracket (SB) flange at the pre-installation stage along with ZPMC QC Inspector Mr. Shen Jian Bo and observed the gap to be in general compliance with contact requirements. Inspection was performed against the Notification No. 00018 Dated December 03, 2010.

The following Suspender Brackets was inspected.

SB96E installed at Segment 11AE at PP 96, Bike Path side.

SB98E installed at Segment 11BE at PP 98, Bike Path side.

SB100E installed at Segment 11BE at PP 100, Bike Path side.

SB102E installed at Segment 11CE at PP 102, Bike Path side.

The gap measurements were recorded within the allowable tolerance and informed to the Lead Inspector and filled out the inspection notification form.

Lift 11 West, Suspender Brackets (Faying Surface Gap Measurements)

This Quality Assurance (QA) Inspector verified and measured the gap between the faying surfaces of Deck Panel Corner Assembly to Suspender Bracket (SB) flange at the pre-installation stage along with ZPMC QC Inspector Mr. Shen Jian Bo and observed the gap to be in general compliance with contact requirements. Inspection was performed against the Notification No. 00018 Dated December 03, 2010.

The following Suspender Brackets was inspected.

SB96W installed at Segment 11AW at PP 96, Counter Weight side.

SB98W installed at Segment 11BW at PP 98, Counter Weight side.

SB100W installed at Segment 11BW at PP 100, Counter Weight side.

SB102W installed at Segment 11CW at PP 102, Counter Weight side.

The gap measurements were recorded within the allowable tolerance and informed to the Lead Inspector and filled out the inspection notification form.

Please reference the pictures attached for more comprehensive details.

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Segment 11EE

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The weld joint was designated as Seg074A-011. The welder identification was 044515 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as Bottom Panel to Side Panel at work point E4.

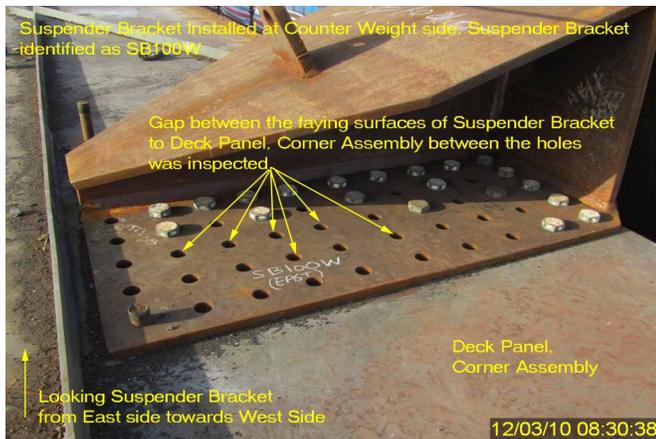
Please reference the pictures attached for more comprehensive details.

Segment 12AE

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The weld joint was designated as Seg3001A-015. The welder identification was 044515 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as Bottom Panel to Side Panel at work point E4.

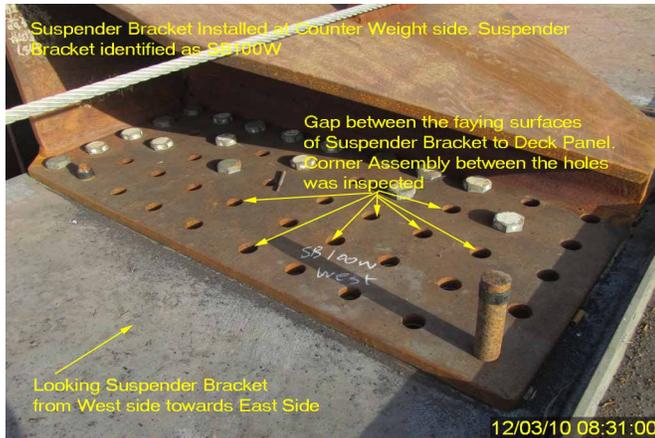
Please reference the pictures attached for more comprehensive details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



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Summary of Conversations:

No relevant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150000422372, who represents the Office of Structural Materials for your project.

Inspected By: Math,Manjunath

Quality Assurance Inspector

Reviewed By: Dsouza,Christopher

QA Reviewer