

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-017747**Date Inspected:** 02-Nov-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

Lift 10 East (Cross-brace Cable for Cable Tray's)

This QA Inspector witnessed the final tension verification for cross-brace cables for the Cable Tray structure connected diagonally by Crosby clips. The Cable Trays were installed at Bottom Panel Cross Beam and Bike Path side at following Panel Points for Segment 10AE, Segment 10BE and Segment 10CE. The QA Inspector verified the tension of cross-brace cables and observed the results appeared to be in general compliance with Request for Information (RFI) No. ABF-RFI-001874R00 Dated August 27, 2009.

The Panel Points (PP) where the steel cables were installed for cable trays are identified as below.

Between PP85.25 to PP 86.

Between PP87 to PP 88

Between PP88 to PP 89.

Between PP91 to PP 92.

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Between PP94 to PP 94.75.

The Inspection was performed against Notification No. 00535 dated November 02, 2010.

Segment 11AE to Segment 11BE (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 E3 (Bike Path side) and at Work Point E4 (Cross Beam side) for the Segment 11AE to Segment 11BE between Panel Point (PP) 97 to PP 98 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 Lead Inspector and Engineer for review and disposition.

Segment 11CE to Segment 11DE (Root Gap and Offset)

This QA Inspector performed Dimension Control Inspection along with Caltrans QA Inspector Mr. Murugan Manikandan on Oct 27, 2010 and Nov 02, 2010 for measuring root gap and offset on at the Transverse Splice for the Segment 11CE to Segment 11DE between Panel Point (PP) 103 to PP 104 at the following locations:

Work Point E2 towards Work Point E1 (Edge Panel Bike Path Side).

Work Point E1 towards Work Point E3 (Side Panel Bike Path Side).

Work Point E3 towards Work Point E4 (Bottom Panel).

Work Point E4 towards Work Point E6 (Side Panel Cross Beam Side).

Work Point E6 towards Work Point E5 (Edge Panel Cross Beam Side).

Work Point E5 towards Work Point E2 (Deck Panel).

The QA Inspector measured the root gap using 1(One) taper gauge and measured the offset using a bridge cam gauge.

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.

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Segment 11CW to Segment 11DW (Root Gap and Offset)

This QA Inspector performed Dimension Control Inspection Caltrans QA Inspector Mr. Murugan Manikandan on Oct 31, 2010 and Nov 02, 2010 for measuring root gap and offset at the Transverse Splice for the Segment 11CW to Segment 11DW between Panel Point (PP) 103 to PP 104 at the following locations:

Work Point W5 towards Work Point W6 (Edge Panel Cross Beam Side).

Work Point W6 towards Work Point W4 (Side Panel Cross Beam Side).

Work Point W4 towards Work Point W3 (Bottom Panel).

Work Point W3 towards Work Point W1 (Side Panel Counter Weight Side).

Work Point W1 towards Work Point W2 (Edge Panel Counter Weight Side).

Work Point W2 towards Work Point W5 (Deck Panel).

The QA Inspector measured the root gap using 1(One) taper gauge and measured the offset using a bridge cam gauge.

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 and bike path identified as BK004A-010. Inspection was performed after correction by heat straightening.

The QA Inspector measured the flatness using 1500mm long straight edge and observed flatness dimensions within the allowable tolerance.

The results of the inspection were informed to Caltrans Lead Inspector Mr. Hiranch Patel and ABF Mr. Peter Shaw.

Bike Path (Bay # 19 and Bay # 11)

This QA Inspector performed Dimension Control Inspection on the Bike Path bottom panel for flatness check and bike path identified as BK004A-009 at Bay # 19 and BK004A-018 at Bay # 11.

The QA Inspector measured the flatness using 1500mm long straight edge and observed flatness dimensions within the allowable tolerance.

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

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Shaw.

Segment 11CW to Segment 11DW (Transverse Splice at Edge Panel)

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 OBW11A-001. The welder identification was 046709 and was 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 the edge panel splice weld, Counter Weight side.

Please reference the pictures attached for more comprehensive details.

Segment 11DE to Segment 11EE (Deck Panel Transverse Splice)

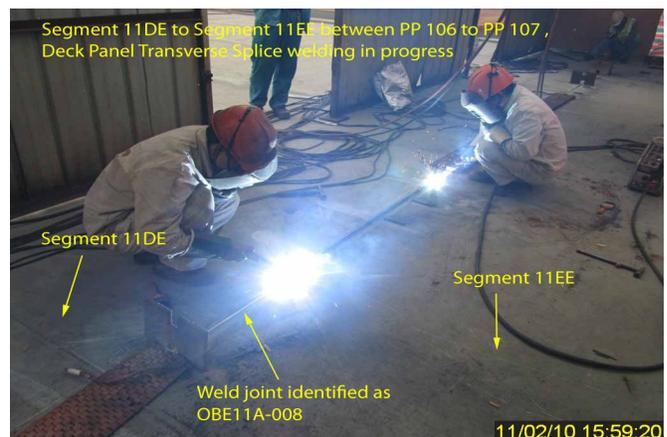
This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBW11A-008. The welder identification were 047313, 044473 and 040367 and was observed welding in the 1G (Flat) position using approved Welding Procedure Specification WPS-B-T-223(2)1T-1. The piece mark was identified as the Deck Panel, transverse splice weld.

Please reference the pictures attached for more comprehensive details.

Segment 11BE to Segment 11CE

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 OBE11B-007. The welder identification was 040320 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 the Side Panel, transverse splice Cross Beam side.

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
