

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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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-018880**Date Inspected:** 23-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 12AW to Segment 12BW (Transverse Splice weld)

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 OBW12B-001. The welder identification was 046709, 040656, 044551 and 040611 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 Bottom Panel, at transverse splice.

Please reference the pictures attached for more comprehensive details.

Segment 12AE to Segment 12BE (Transverse Splice at Edge Panel)

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBW12-001. The welder identification

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was 044515 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-Repair-FCM-1. The piece mark was identified as the edge panel splice weld, Corner Assembly side. ZPMC performed repair welding in accordance with Welding Repair Report B-WR17900.

Segment 12AE to Segment 12BE (Transverse Splice T-Rib)

This QA Inspector observed the Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The weld joint was designated as SP3002-001-194. The welder identification was 044515 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 Side Panel, T-Rib splice weld.

Please reference the pictures attached for more comprehensive details.

Segment 12AE (Bottom Panel to Side Panel)

This QA Inspector observed the Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The weld joint was designated as SP3001A-004. The welder identification was 053871 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 weld connecting the Bottom Panel to Side Panel at work point E3.

Segment 12BE (Bottom Panel to Side Panel)

This QA Inspector observed the Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The weld joint was designated as SP3002A-004. The welder identification was 053871 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 weld connecting the Bottom Panel to Side Panel at work point E3.

Segment 11EE (Drip Plate)

This QA Inspector observed the Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The weld joint was designated as OBE11E-139. The welder identification was 040270 and was observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-P-2213-B-U2-FCM-1. The piece mark was identified as the Drip plate welded at work point E6, Cross Beam side.

Segment 11EE (Edge Panel Drip Plate)

This QA Inspector observed the Shielded Metal Arc Welding (SMAW) process on a Fillet weld. The weld joint was designated as OBE11E-140/141. The welder identification was 040270 and was observed welding in the 2F (Horizontal) position using approved Welding Procedure Specification WPS-B-P-2214-FCM-1. The piece mark was identified as the Drip plate welded at work point E6, Cross Beam side.

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### Segment 11EE (Edge Panel Drip Plate)

This QA Inspector observed the Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The weld joint was designated as OBE11E-142. The welder identification was 050289 and was observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-P-2213-B-U2-FCM-1. The piece mark was identified as the Drip plate welded at work point E1, Bike Path side.

### Segment 11EE (Edge Panel Drip Plate)

This QA Inspector observed the Shielded Metal Arc Welding (SMAW) process on a Fillet weld. The weld joint was designated as OBE11E-143/144. The welder identification was 050289 and was observed welding in the 2F (Horizontal) position using approved Welding Procedure Specification WPS-B-P-2214-FCM-1. The piece mark was identified as the Drip plate welded at work point E1, Bike Path side.

Please reference the pictures attached for more comprehensive details.

### Segment 11EE (Deck Panel Drip Plate)

This QA Inspector observed the Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The weld joint was designated as OBE11E-145. The welder identification was 040270 and was observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-P-2213-B-U2-FCM-1. The piece mark was identified as the Drip plate welded at Deck Panel Corner Assembly, Cross Beam side.

### Segment 11EE (Deck Panel Drip Plate)

This QA Inspector observed the Shielded Metal Arc Welding (SMAW) process on a Fillet weld. The weld joint was designated as OBE11E-140/141. The welder identification was 040270 and was observed welding in the 2F (Horizontal) position using approved Welding Procedure Specification WPS-B-P-2214-FCM-1. The piece mark was identified as the Drip plate welded at Deck Panel Corner Assembly, Cross Beam side.

Please reference the pictures attached for more comprehensive details.

### Lift 11 East (Deck Panel, Corner Assembly)

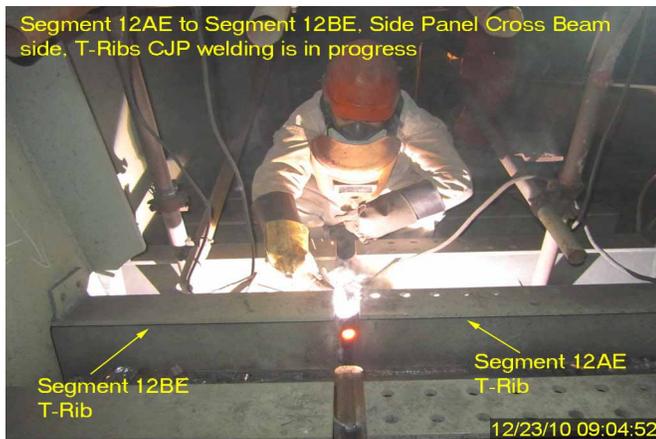
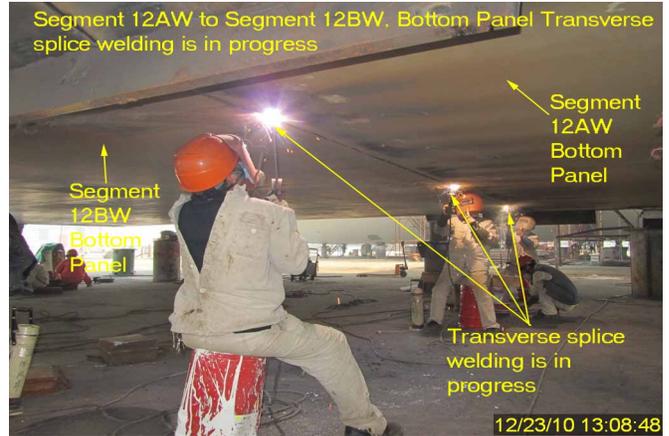
This QA Inspector observed the drilling activities by ZPMC personnel at Deck Panel Corner Assembly; Bike Path side is in progress. Holes are drilled for installing the Road Barrier Brackets.

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.

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<b>Inspected By:</b>	Math,Manjunath	Quality Assurance Inspector
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<b>Reviewed By:</b>	Dsouza,Christopher	QA Reviewer
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