

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-018580**Date Inspected:** 14-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 11EW to Segment 12AW (Transverse Splice T-Ribs)

This QA Inspector performed Dimension Control Inspection along with Caltrans QA Inspector Mr. Murugan Manikandan on the Transverse Splice T-Ribs to T-Ribs for the Segment 11EW to Segment 12AW between Panel Point (PP) 108 to PP 109 at the following locations:

Work Point W6 towards Work Point W4 (Side Panel Cross Beam Side) total 19 T-Ribs.

Work Point W4 towards Work Point W3 (Bottom Panel) total 18 T-Ribs.

Work Point W3 towards Work Point W1 (Side Panel Counter Weight Side) total 19 T-Ribs.

The QA Inspector measured the Vertical Offset using 1(One) Meter Straight Edge and measured the Horizontal Offset on the web using a Bridge Cam gauge.

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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 # 11

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

BK004A-029.

The QA Inspector measured the flatness using 600mm long straight edge across the Butt (CJP) weld and using 1500mm long straight edge between the stiffeners which are plug welded to bottom plate.

Observed flatness within the allowable tolerance.

The result of the inspection was informed to ZPMC QC Supervisor Mr. Xu Le Feng, ABF Mr. Man Kam Hon and Caltrans Lead Inspector Mr. Mark Miller and Mr. Hiranch Patel.

U-Rib Reinforced Plate

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 USPL1-652-001. The welder identification was 046709 and was observed welding in the 1G (Flat) position using approved Welding Procedure Specification WPS-345-SMAW-1G(1F)-FCM-Repair-1. The piece mark was identified as the U-Rib Reinforced Plate. ZPMC personnel performing repair welding in accordance with Welding Repair Report B-WR19038. Please reference the pictures attached for more comprehensive details.

U-Rib Reinforced Plate

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 USPL1-653-001. The welder identification was 057333 and was observed welding in the 1G (Flat) position using approved Welding Procedure Specification WPS-345-SMAW-1G(1F)-FCM-Repair-1. The piece mark was identified as the U-Rib Reinforced Plate. ZPMC personnel performing repair welding in accordance with Welding Repair Report B-WR19040.

U-Rib Reinforced Plate

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 USPL1-656-001. The welder identification was 046704 and was observed welding in the 1G (Flat) position using approved Welding Procedure Specification WPS-345-SMAW-1G(1F)-FCM-Repair-1. The piece mark was identified as the U-Rib Reinforced Plate. ZPMC personnel performing repair welding in accordance with Welding Repair Report B-WR19046.

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Segment 12AE to Segment 12BE

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 OBW12D-002. The welder identification was 052763, 040367 and 047353 and observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2233T-ESAB. The piece mark was identified as the Side Panel, transverse splice Cross Beam side.

Segment 12AE to Segment 12BE

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 OBW12D-001. The welder identification was 040458 and observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2233T-ESAB. The piece mark was identified as the Side Panel Corner Assembly, transverse splice Cross Beam side.

Segment 12AE to Segment 12BE

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 OBW12D-003. The welder identification was 052763, 040367 and 047353 and observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2233T-ESAB. The piece mark was identified as the Side Panel, transverse splice Bike Path side.

Please reference the pictures attached for more comprehensive details.

Segment 12AE to Segment 12BE

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 OBW12D-008. The welder identification was 040458 and observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2233T-ESAB. The piece mark was identified as the Side Panel Corner Assembly, transverse splice Bike Path side.

Segment 12AE

This QA Inspector observed the in process fillet welding operation by the Shielded Metal Arc Welding (SMAW) process. The Weld joint was designated as BP3001-001-055/056. The welder identification was 044515 and was observed welding in the 2F (Horizontal) position using approved Welding Procedure Specification WPS-B-P-2112-FCM-1. The piece mark was identified as the Bottom Panel, T-Ribs hold back weld.

Please reference the pictures attached for more comprehensive details.

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Segment 12BE

This QA Inspector observed the in process fillet welding operation by the Shielded Metal Arc Welding (SMAW) process. The Weld joint was designated as BP3005-001-013/014. The welder identification was 040320 and was observed welding in the 2F (Horizontal) position using approved Welding Procedure Specification WPS-B-P-2112-FCM-1. The piece mark was identified as the Bottom Panel, T-Ribs hold back weld.

Cross Beam # 15

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 CB202A-015-001. The welder identification was 050289 and was observed welding in the 2G (Horizontal) position using approved Welding Procedure Specification WPS-345-SMAW-2G(2F)-FCM-Repair-1. The piece mark was identified as the Cross Beam #15, East side Web plate to Deck Plate at PP 100. ZPMC personnel performing repair welding in accordance with Welding Repair Report B-WR18800.

Please reference the pictures attached for more comprehensive details.

Suspender Bracket

This QA Inspector observed match drilling is in progress for the Suspender Bracket plate to the Edge panel installed at PP 108, Counter Weight side for Segment 11EE.

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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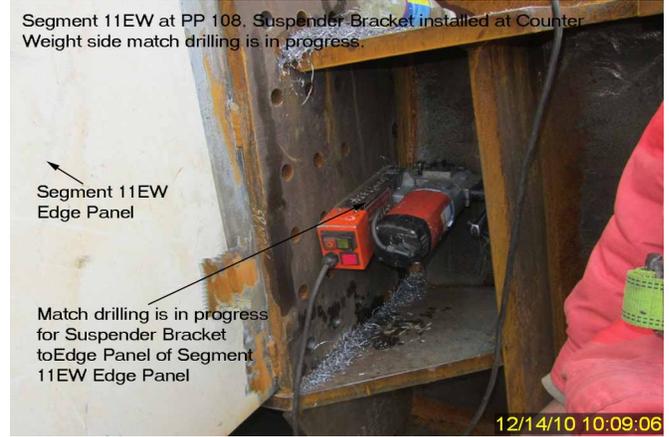
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Cross Beam # 15. West side plate to Deck Plate connecting weld Repair welding is in progress at PP 100



Segment 11EW at PP 108. Suspender Bracket installed at Counter Weight side match drilling is in progress.



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
