

**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 #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016239**Date Inspected:** 17-Aug-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), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**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 Segment**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

OBG Trial Assembly Yard

Segment 10AW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW10L-003, bottom counter weight connection plate. The welders are identified as #037723 and # 067829 and were observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-F.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW10L-004, bottom counter weight connection plate. The welders are identified as #067572 and # 067942 and were observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-F.

Segment 10AW/10BW

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This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW10B-001, Side Plate splice. The welder is identified as #067877 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233T.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW10B-002, Side Plate splice. The welders are identified as #067876 and # 049759 and were observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233T.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW10B-004, Side Plate splice. The welders are identified as #040704 and # 046706 and were observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233T.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW10B-005, Side Plate splice. The welder is identified as #068917 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233T.

### Segment 9EW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SEG057C-042, Longitudinal Diaphragm to Floor beam. The welder is identified as #068764 was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-F.

### Segment 9DW/9EW

This QA Inspector observed Base Metal Repair using the Shielded Metal Arc Welding (SMAW) process at locations of removed fit up plates along the exterior of the Deck Plate transverse CJP splice. The welder is identified as #062935 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-345-SMAW-1G (1F)-FCM-repair-1 for CWR1679-R1.

For the above mentioned welding activities ZPMC Quality Control (QC) Inspector is identified as Zhou Peng and Zhu Yuan Yuan. The welding variables recorded by QC appeared to comply with the Applicable WPS.

### Segment 9DW

This QA Inspector observed ABF personnel performing Ultrasonic Testing on the Edge Plate to Deck Plate hold back CJP weld, counter weight side.

### Segment 9CW/9DW

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This QA Inspector observed ABF personnel performing Ultrasonic Testing on the Side Plate transverse CJP splice, counter weight side. D scan was performed.

BK1-040

This QA Inspector observed ZPMC personnel performing Magnetic Particle Testing at locations of removed lifting lugs on the top and side panels.

Segment 9DW

This QA Inspector observed beveling of the Side Plates and Bottom Plate with the use of a mechanical guided torch.

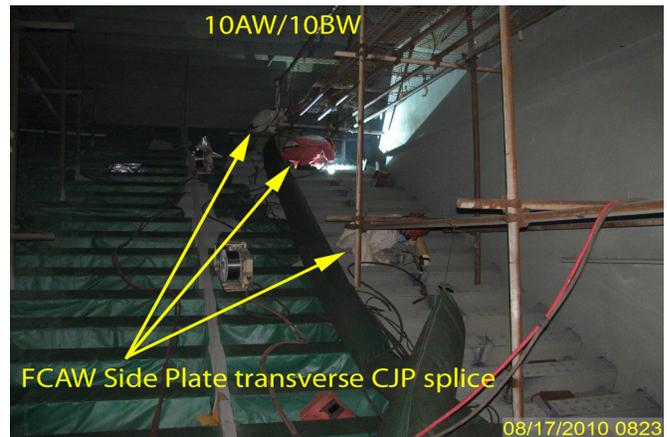
BK1-041, BK1-042

This QA Inspector observed removal of lifting lugs by arc gouge and grinding remaining portions flush.

Segment 10AW

This QA Inspector observed match drilling of the Bottom Plate WT stiffener flange at the west end field splice.

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



## Summary of Conversations:

No relevant conversations.

## 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, 150-0042-2372 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Hernandez, Dan	Quality Assurance Inspector
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<b>Reviewed By:</b>	Peterson, Art	QA Reviewer
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