

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021113**Date Inspected:** 27-Feb-2011**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:** Zhou 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 Segments**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 12BE/12CE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a UT repair on a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBE12-003, Side Plate transverse splice. The welder is identified as #067752 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-FCM-repair-1 for CWR2813-R1.

Segment 12BE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a UT repair on a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated CA3005-006, Edge Plate to Deck Plate hold back weld. The welder is identified as #040265 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-FCM-repair-1 for CWR2808-R1.

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### Segment 12CE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a UT repair on a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG3003A-011, Side Plate to Bottom Plate hold back weld. The welder is identified as #067752 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-FCM-repair-1 for CWR2815-R1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a UT repair on a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated CA3005-002, Edge Plate to Deck Plate hold back weld. The welder is identified as #040265 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-FCM-repair-1 for CWR2808-R1.

### Segment 12BW/12CW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a UT repair on a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated CA3012-011, Side Plate transverse splice. The welder is identified as #046709 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-FCM-repair-1 for CWR2763.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a UT repair on a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated CA3012-012, Side Plate transverse splice. The welder is identified as #041713 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-FCM-repair-1 for CWR2763.

### Cross Beam 17

This QA Inspector observed Flux Core Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated SP3025-017-017, Side Panel stiffener hold back weld. The welder is identified as #040367 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132-ESAB.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated FB3049-017-029, Floor Beam stiffener hold back weld. The welder is identified as #040581 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-P-2112-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated FB3049-017-030, Floor Beam stiffener hold back weld. The welder is identified as #040581 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-P-2114-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated SP3033-017-024, Floor Beam stiffener hold back weld. The welder is identified as #068764 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification

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WPS-B-P-2112-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated SP3033-017-025, Floor Beam stiffener hold back weld. The welder is identified as #068764 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-P-2114-FCM-1.

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

Segment 12BE/12CE

This QA Inspector observed ABF personnel performing Ultrasonic Testing on the Edge Plate transverse CJP splice, bike path side.

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the Bottom Plate WT stiffener hold back welds.

Segment 12AW/12BW

This QA Inspector observed ABF personnel performing Ultrasonic Testing on the Longitudinal Diaphragm to Bottom Plate hold back weld, cross beam side.

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>	Miller,Mark	QA Reviewer
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