

**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-009752**Date Inspected:** 21-Oct-2009**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:** Xu Yumin**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 5CE

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 SEG025B-001. The welder is identified as #220066 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-345-FCAW-1G (1F)-repair for WR8063.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated as SEG025B-005, 006. The welder is identified as #220066 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-345-FCAW-2G (F)-repair for WR8063.

This QA Inspector observed ABF personnel performing Magnetic Particle Testing (MT) of the east side lifting lugs at panel point 35, cross beam side.

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## Segment 1AW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Plug weld for misdrilled bolt holes in Plate 1450A at the following location 700mm for counter weight side Bottom plate and 3015mm west from weld OBW1A-003 and 700mm for counter weight side Bottom plate and 3920mm west from weld OBW1A-003. The welder is identified as #054467 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G-repair for WR8272.

## BK001-016

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint repair. The Weld joint is designated as BK001-016-005, 007. The welder is identified as #220064 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-345-FCAW-3G (3F)-repair for WR8130 (BK001-016-007) and WR8131 (BK001-016-006).

## Segment 5AW/5BW

This QA Inspector observed ZPMC personnel performing Ultrasonic Testing (UT) of the web splice on the Side Plate WT stiffeners, counter weight side.

This QA Inspector observed final bolt tension verification on the Longitudinal Diaphragm to Longitudinal Diaphragm between panel points 9 and 10 submitted on Bolting Inspection Notification Sheet # 00175. The following bolt sizes with associated Rotational Capacity numbers were used:

M24x75 DHGM240020  
M24x90 DHGM240028  
M24x100 DHGM240022  
M24x110 DHGM240023  
M24x120 DHGM240024

ZPMC Quality Control (QC) Inspector is identified as Wang Li Yang and Feng Ya Jun. QA Inspector observed QC Inspector verify welding parameters. The welding variables recorded by QC appeared to comply with the Applicable WPS.

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>	Carreon,Albert	QA Reviewer
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