

**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-015920**Date Inspected:** 27-Jul-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

BK1-041

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 BK001-041-009, top panel to connection plate. The welder is identified as #067764 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

Segment 9EE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated as SSD29-PP83.5-004, Side Plate angle stabilizer to gusset plate. The welder is identified as #044779 and was observed welding in the 3F (vertical) position using approved Welding Procedure Specification WPS-B-P-2113.

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## Segment 9BW/9CW

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 EP126-001-027, Edge Plate I-rib splice. The welder is identified as #067665 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

## Segment 9BW

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated as SP770-001-030, Side Plate WT stiffener hold back weld. The welder is identified as #045143 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132.

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 SEG051A-045, Side Plate to Bottom Plate splice. The welder is identified as #067609 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-repair-1, for CWR1722.

## Segment 9CW

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated as SP771-001-017, Side Plate WT stiffener hold back weld. The welder is identified as #045143 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132.

## Segment 9DE

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 SEG058C-041, floor beam stiffener to LD flange. The welder is identified as #053753 and was observed welding in the 2G (horizontal) position using approved Welding Procedure Specification WPS-345-SMAW-2G (2F)-repair-1, UT repair for WR14121.

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 SEG058C-043, LD web stiffener to FB web. The welder is identified as #053753 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-345-SMAW-1G (1F)-repair-1, UT repair for WR14121.

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

## Segment 9DE/9EE

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the Side Plate WT stiffener

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hold back fillet welds, bike path side.

This QA Inspector observed ZPMC personnel performing Magnetic Particle Testing on the interior of the Deck Plate at locations of removed fit up plates.

## QA Verification

### BAY 11 - Bolt Testing Room

This QA Inspector observed ZPMC personnel performing Pre-installation verification of required torque for A325 High Strength Bolt assemblies with a Skidmore-Wilhelm Model: MS, serial number: 15866 (calibration expiration date 4/29/11) and torque wrench identified as #2 (calibration expiration date 10/12/10) on the following bolts:

M22x65 lot # DHGM220105

5 bolt assemblies were tested

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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