

**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-014915**Date Inspected:** 14-Jun-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 9AW/9BW

This QA Inspector observed Base Metal Repair using Shielded Metal Arc Welding (SMAW) in progress at locations of removed fit up plates along the exterior of the Side Plate transverse CJP splice, cross beam side. The welder is identified as #069683 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-FCM-repair-1 for WR13193.

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 OBW9-003. The welder is identified as #067829 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

Segment 9AW

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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 CA056-002. The welder is identified as #066261 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

### Segment 9BW

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 SEG051\*-049. The welder is identified as #066261 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

### Segment 8CE

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the Edge Plate at locations of removed fit up plates along the 8CE/9AE transverse CJP field splice, cross beam side.

### Segment 8AW

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the Side Plate at locations of removed fit up plates along the 7EW/8AW transverse CJP field splice, cross beam side.

### Segment 8CW

This QA Inspector observed ZPMC personnel performing Ultrasonic Testing on the Longitudinal Diaphragm flange and web to floor beam CJP connection at panel point 68 west, cross beam side.

This QA Inspector observed heat straightening on the bottom Counter Weight Connection Plate at panel point 68 to 70 following HSR1(B)-8596.

### Segment 8BW

This QA Inspector observed ZPMC personnel performing Ultrasonic Testing on the Longitudinal Diaphragm flange and web to floor beam CJP connection at panel point 67 east, cross beam side.

### Segment 7BW

This QA Inspector observed grinding ends of FL3 I-rib stiffeners after buttering to achieve bolt hole edge distance requirements at panel point 51 following WR13561.

### Lift 8 East

This QA Inspector observed the installation of sea bracing in the interior of the lift.

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

Segment 8AW/8BW

This QA Inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC UT personnel. The following items were tested:

DP644-001-019  
EP062-001-017  
SP434-001-034  
SP102-001-053  
SP129-001-050  
SP156-001-050  
BP094-001-028  
BP040-001-020  
BP148-001-024  
SP764-002-048  
SP724-001-047  
SP486-002-036  
SP445-002-057  
EP073-002-022  
DP652-001-019

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
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

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