

**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-021859**Date Inspected:** 20-Mar-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 13AE

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 SEG3007AD-043, FL3 web to Side Plate. The welder is identified as #066183 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-4G (4F)-FCM-repair-1 for WR19463.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG3007AD-032, FL3 web to Side Plate. The welder is identified as #037743 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated SEG3007K-026, 027, full height stiffener to FL3 web. The welder is identified as #037743 and

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## WELDING INSPECTION REPORT

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was observed welding in the 3F (vertical) positions using approved Welding Procedure Specification WPS-B-P-2113-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated SEG3007H-026, 027, full height stiffener to FL3 web. The welder is identified as #037743 and was observed welding in the 3F (vertical) positions using approved Welding Procedure Specification WPS-B-P-2113-FCM-1.

### Segment 12CE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated SEG3003M-271, Bottom Plate WT stiffener connection clip to Floor Beam at panel point 115. The welder is identified as #037032 and was observed welding in the 2F (horizontal) and 3F (vertical) positions using approved Welding Procedure Specification WPS-B-P-2112-FCM-1 and WPS-B-P-2113-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated SEG3003M-038, 039, connection clip to Bottom Plate WT stiffener flange at panel point 115. The welder is identified as #037032 and was observed welding in the 2F (horizontal) positions 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 SEG3003N-271, Bottom Plate WT stiffener connection clip to Floor Beam at panel point 115. The welder is identified as #037032 and was observed welding in the 2F (horizontal) and 3F (vertical) positions using approved Welding Procedure Specification WPS-B-P-2112-FCM-1 and WPS-B-P-2113-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated SEG3003N-038, 039, connection clip to Bottom Plate WT stiffener flange at panel point 115. The welder is identified as #037032 and was observed welding in the 2F (horizontal) positions using approved Welding Procedure Specification WPS-B-P-2112-FCM-1.

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

### Segment 12AE/Cross Beam 17

This QA Inspector observed match drilling of bolt holes for the bolted splice plate at CB Side Panel and 12AE FL3 web at panel points 110 and 112.

### Segment 13AW

This QA Inspector observed 13AW was placed in the West Trial Assembly line for fit up with 12CW.

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

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12AE/CB17  
match drill bolt holes in FL3 web and side panel



03/20/2011 1302

13AE  
SMAW 4G  
FL3 web to SP



03/20/2011 0818

13AE  
SMAW 3F, FL3 web full height stiffener



03/20/2011 1306

12CE  
SMAW 2F/3F of connection clip



03/20/2011 0832

## 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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**Inspected By:** Hernandez,Dan

Quality Assurance Inspector

**Reviewed By:** Miller,Mark

QA Reviewer

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