

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

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-008933**Date Inspected:** 01-Sep-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:** Li Jia**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 1AW/1BW

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 OBW1A-007. The welder is identified as #054467 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1 for WR-7252.

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 OBW1-007. The welder is identified as #220063 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-P-2213-B-U2A-F.

Segment 5BE/5CE

---

---

# WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

---

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 OBE5-006. The welder is identified as #053609 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233-B-U2-F.

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 BP57A-001-028. The welder is identified as #048801 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233-B-U2-F.

## Segment 4BW

This QA Inspector observed the cope holes on stiffener plate X76B on Longitudinal Diaphragm LD3A and stiffener plate X76C on Longitudinal Diaphragm LD4A at panel point 26 have been welded. The cope hole was to allow access for the vertical Complete Joint Penetration weld joint connecting LD3A to the web of floor beam FB7B and LD4A to the web of floor beam FB17A. An incident report was written for this observation.

## Segment 1BW

This QA Inspector observed ZPMC personnel performing Magnetic Particle Testing (MT) on side plate stiffener plate fillet hold back welds along the 1BW/2AW connection, counter weight side.

## Segment 1AAE

This QA Inspector observed match drilling bolt holes in the side plate for connection of the traveler rail bracket on the bike path side.

## Segment 1AE/1BE

This QA Inspector observed ABF personnel performing Ultrasonic Testing (UT) of the bottom plate transverse CJP splice weld; Scanning was being performed in search of transverse indications.

## Segment 2BW

This QA Inspector observed ABF personnel performing MT on the longitudinal diaphragm to bottom plate fillet weld connection, on the cross beam side between panel points 18 and 19.

## Segment 4BW

This QA Inspector observed the cope holes on stiffener plate X76B on Longitudinal Diaphragm LD3A and stiffener plate X76C on Longitudinal Diaphragm LD4A at panel point 26 have been welded. The cope hole was to allow access for the vertical Complete Joint Penetration weld joint connecting LD3A to the web of floor beam FB7B and LD4A to the web of floor beam FB17A.

ZPMC Quality Control (QC) Inspector is identified as Chen Bo and Feng Ya Jun. QA Inspector observed QC

---

---

# WELDING INSPECTION REPORT

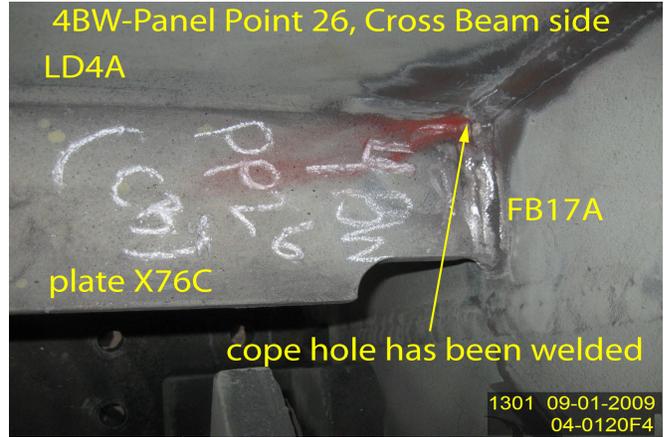
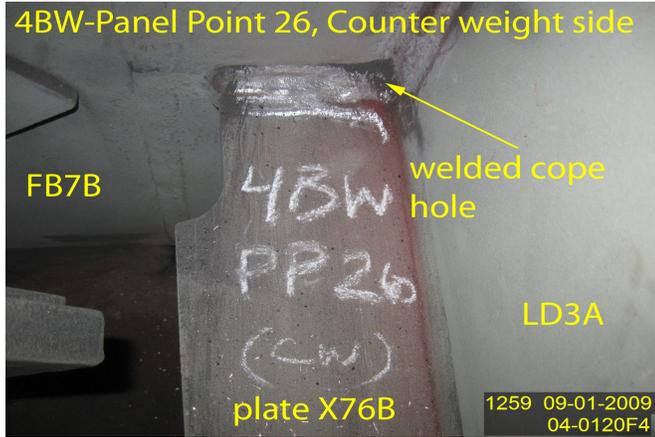
( Continued Page 3 of 3 )

---

---

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.

---

<b>Inspected By:</b>	Hernandez,Dan	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

---