

**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-005583**Date Inspected:** 17-Feb-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	Shen Fu You			<b>CWI Present:</b>	Yes	No	
<b>Inspected CWI report:</b>	Yes	No	N/A	<b>Rod Oven in Use:</b>	Yes	No	N/A
<b>Electrode to specification:</b>	Yes	No	N/A	<b>Weld Procedures Followed:</b>	Yes	No	N/A
<b>Qualified Welders:</b>	Yes	No	N/A	<b>Verified Joint Fit-up:</b>	Yes	No	N/A
<b>Approved Drawings:</b>	Yes	No	N/A	<b>Approved WPS:</b>	Yes	No	N/A
				<b>Delayed / Cancelled:</b>	Yes	No	N/A
<b>Bridge No:</b>	34-0006			<b>Component:</b>	OBG		

**Summary of Items Observed:**

On this day Caltrans OSM Quality Assurance (QA) Inspector Erik Prue was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA Inspector observed and/or found the following:

Bay 14 lift 6CW: QA Inspector randomly observed ZPMC qualified welder ID#045265 welding side plate 476B to side plate 84A Seg 031B-079 and side plate 47B to side plate 85B Seg 031B-008. Welder was observed welding in the 1G (flat) position utilizing Submerged Arc Welding (SAW) process. QA Inspector observed the ZPMC QC Inspector Wu Bin verifying welding parameters and pre-heat were in accordance with the Welding Procedure Specification (WPS). QA Inspector with QC Inspector observed parameters as follows: preheat temperature to be at 125°C and measured the welding parameters to be 590 amps, 34.1 volts, a travel speed of 500 mm/min. Welding parameters verified by QA Inspector appear to be in general compliance with the approved WPS-B-T-2221-B-L2C-S-2.

Bay 14. QA Inspector observed ZPMC personnel fitting diaphragm plates to deck panels DP603-001, DP601-001, DP586-001 and DP606-001. QA Inspector observed ZPMC QC Inspector verifying fit up requirements to the approved joint design and inspecting tack welds for compliance to AWS D1.5 (02) requirements.

Bay 13 lift 1BW: QA Inspector randomly observed ZPMC qualified welder ID#049861 tack welding longitudinal diaphragm LD027-001 to bottom plate. Welder was observed welding in the 2G (horizontal) position utilizing Shielded Metal Arc Welding (SMAW) process. QA Inspector observed the ZPMC QC Inspector Zhang Xian Ji verifying welding parameters and pre-heat were in accordance with the Welding Procedure Specification (WPS). QA Inspector with QC Inspector observed parameters as follows: preheat temperature to be at 80°C and measured the welding parameters to be 184 amps, 25 volts, a travel speed of 100 mm/min. Welding parameters verified by

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QA Inspector appear to be in general compliance with the approved WPS-B-P-2112-FCM.

Unless otherwise noted, all work observed on this date appears to be in general compliance with the applicable contract documents.

## Summary of Conversations:

Conversations noted in items above.



## 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, 15000422372, who represents the Office of Structural Materials for your project.

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

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