

**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-001523**Date Inspected:** 22-Feb-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	Zhu Zhong Hai, Huang Wen Ping			<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Bridge No:</b>	34-0006			<b>Component:</b>	Tower mock up, OBG		

**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Dan Hernandez was present 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.

Item Description	WBS	Dwg No.	Status
1 114m Tower mock up			in progress
ZPMC Quality Control (QC) Certified Welding Inspector (CWI) Mr. Zhu Zhong Hai was observed monitoring welding activities at the workstation. Caltrans QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of fill and cover passes on 114m Tower Mock Up on temporary lifting lug to MUSC-MA101 welding was performed in the 3G position. The approved welder Chang Chuan Cang # 053870 is using approved welding procedure specification WPS-B-P-2333-TC-P4-F. Caltrans QA Inspector verified welding parameters at approximately 216 amps, 25 volts and 112 millimeters per minute (mm/min) travel speed. Preheat and interpass temperatures were verified during welding activities and were within approved WPS minimum and maximum range. FCAW welding consumable is verified and identified as classification E71T-1 1.4mm in diameter.			

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## 2 OBG deck plates

in progress

QA Inspector observed ZPMC personnel grinding tack welds in preparation for Gas Metal Arc Welding root pass on deck plate DP063-001 welds 1 – 10.

QA Inspector observed the removal of weld run off tabs was in process with cutting torch on DP013-001 after the welding of U ribs to deck plate was completed.



## 3 OBG floor beams

in progress

ZPMC QC CWI Mr. Huang Wen Ping was observed monitoring welding activities at the workstation. Caltrans QA Inspector observed FCAW in progress of tack welds on stiffener plates to floor beam FB-018-002-039 welding was performed in the 2G position. The approved welder Hong Shuili is using approved welding procedure specification WPS-B-T-2132-3. Caltrans QA Inspector observed CWI verify welding parameters, approximately 287 amps and 29 volts. Preheat temperatures were verified during welding activities and were within approved WPS minimum and maximum range. SMAW welding consumable is verified and identified as classification E71T-1 1.4mm in diameter.

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## Summary of Conversations:

As identified within the contents of this report.

## 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 Mazen Wahbeh, (818) 292-0659, 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>	Cuellar,Robert	QA Reviewer

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