

**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-000512**Date Inspected:** 24-Sep-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 2330**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 800**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	Xu Lefeng & Hou Jing Tao	<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>	Caltrans Mockup	

**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mike Hasler was present to observe the fitup, welding and related activities associated with the fabricating of Caltrans Mock-up, 77M, 89M and 114M, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

<b>Item</b>	<b>Description</b>	<b>WBS</b>	<b>Dwg No.</b>	<b>Status</b>
1	Skin Plate D (upper)	NA	NA	Work In Progress
	Mock-Up 114M, Skin Plate D (upper section): Caltrans QA Inspector observed flux cored arc welding (FCAW) in progress at stiffener plate, mp1007 to skin plate, partial joint penetration (PJP) and complete joint penetration (CJP), double bevel T-joint welds. The weld numbers are identified as weld 12, 13 and 14. The welders were observed welding fill/cover pass weld in the horizontal position. Caltrans QA Inspector observed welders chipping and wire brushing during the interpass weld cleaning. The welders are identified as Mr. Cao Henjin, welder stamp 66420 and Mr. Wen Yanyan, welder stamp 066734. The welders were using welding procedure specification WPS-B-T-2332-TC-P5-F, Revision 0 and WPS-B-T-2232-TC-U5-F, Revision 1. Caltrans QA Inspector observed ZPMC Quality Control (QC) Certified Welding Inspector (CWI) Mr. Xu Lefeng and Bureau Veritas inspector, Mr. Hou Jing Tao monitoring welding activities at the workstation. Caltrans QA Inspector measured current welding parameters at approximately 305 amps, 32.0 volts and 300 millimeters per minute (mm/min) travel speed. Preheat and interpass temperatures were verified during welding activities. The preheat temperature prior to the start of welding measures more than 110 Celsius (230 degree Fahrenheit) but less than 232 Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. FCAW consumable is verified and identified as Supercored 71H, classification E71T-1, diameter 1.4 mm (.055 inches).			

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# WELDING INSPECTION REPORT

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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>	Hasler, Mike	Quality Assurance Inspector
<b>Reviewed By:</b>	Cuellar, Robert	QA Reviewer

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