

**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-005649**Date Inspected:** 03-Feb-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:** Shen Fu You**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 Segment**Summary of Items Observed:**

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) facility at Changxing Island in Shanghai, China. QA Inspector and/or found the following:

Outside Paint Shop lift 3AW: QA Inspector was informed by ZPMC QC that welds and base material for lift 3AW had been visually inspected and found ready for QA visual verification. QA Inspector arrived at lift 3AW at 0900 and observed ABF QC Inspectors performing visual inspection on the inside of OBG lift 3AW. ZPMC QC informed ABF QC Inspectors that visual inspection was complete. QA Inspector observed ABF QC Inspectors mark indications overlooked by ZPMC QC Inspectors inside and outside the lift that needed repair by grinding and or grinding/welding. QA Inspector verified indication areas marked by ABF QC Inspectors and marked several more indications (base material nicks and gouges, undercut, porosity, overlap, weld spatter, weld contour, and arc strikes) not found by ZPMC or ABF QC Inspectors. QA Inspector informed ABF QC Inspectors of areas found by QA inspection verification. QA Inspector informed ABF and ZPMC QC Inspectors that lift 3AW welds and base material is not ready for QA Inspector visual verification at this time.

Outside Bay 13 lift 4BW: QA Inspector observed 4 welders performing welding operations on lift 4BW. QA Inspector randomly observed ZPMC qualified welder Feng Hua Jun ID#066258 welding joint SSD1-PP-027-221. Welder was observed welding in the 4G (overhead) position utilizing Shielded Metal Arc Welding (SMAW) process with a 4 mm diameter electrode THJ506Fe-1 (E7018-1). QA Inspector observed the ZPMC QC CWI Zhang Xiao Ming 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

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at 120°C and measured the welding parameters to be 175 amps, 25 volts, a travel speed of 113 mm/min. Welding parameters verified by QA Inspector appear to be in general compliance with the approved WPS-B-P-2214-TC-U4b-FCM.

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

**Summary of Conversations:**

Conversations noted in items observed 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>	Clifford,William	QA Reviewer

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