

**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-001540**Date Inspected:** 21-Feb-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Changxing Island**CWI Name:** Sun Wei**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 Deck Plate**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Larry Viars was present to perform observations of the welding of Orthotropic Box Girder (OBG) U ribs Production Monitoring Test (PMT) and Production Panel, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

The Caltrans Quality Assurance Inspector observed the U-rib PMT panel for Deck Panel (DP) 014-002 being cut into sections with an oxyfuel torch. The Panel had areas of large areas of incomplete fusion on the u-rib toe of the weld for weld # 6. Please see the attached photo below after oxyfuel cutting and the incomplete fusion mentioned above.

Caltrans QA performed visual inspection of tack welds and root gap measurements of Deck Panels DP013-001 and DP016-001. Visual inspection of tack welding appeared to meet the requirements of the contract documents. Caltrans QA Inspector observed the Production Monitoring Test for Production Panel DP016-001 closed rib welds in Bay #1. ZPMC welding personnel performed Gantry Machine Gas Metal Arc Welding (GMAW) for the root pass. Dual process WPS-B-T-2342-U1 (U-rib)-3 was posted as the Welding procedure specification for closed rib welding. The following weld joint and welder were recorded for the PMT, weld joint (wj) wj # 1 Mr. Yuan Fengchuan, wj # 2 Mr. Chen Jie, wj # 3 Mr. Gao Xin Dong, wj # 4 Mr. Jiang Ting Guang, wj # 5 Mr. Gao Xin Ding and wj # 6 Mr. Jiang Ting Guang. The Gantry Welding operator was Mr. Li Xide.

The Caltrans QA inspector observed areas of rust present in DP016-001 Partial Joint Penetration weld groove. These areas were pointed out to ZPMC QC Mr. Shen Xi and American Bridge representative Warren Buehler. ZPMC elected to remove rust by method of electrical powered wire brushing.

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# WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

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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>	Viars,Larry	Quality Assurance Inspector
<b>Reviewed By:</b>	Cuellar,Robert	QA Reviewer

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