

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-001190**Date Inspected:** 02-Dec-2007**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:** Shanghai, China**CWI Name:** Fu Yu Hong**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 and Tower Mock-up**Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

Item Description	WBS	Dwg No.	Status
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2	89 M and 114 M elevation ZPMC non destructives testing evaluations.		
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The QA inspector observed ZPMC performing 100 % ultrasonic testing (UT) verifications at the skin plate D and E at the junction of the longitudinal stiffeners and the skin plates for the Tower Mock-up 114 M elevation lower panel. ZPMC also performed 100% UT verifications at 2 corner connection splices designated as SA-24 weld joints 11 and 12 Tower Mock-up 89 M. The QA inspector observed that the UT operations appeared to be in compliance with the contract documents.

Note: ZPMC found a transverse crack on the second shift at the cross bracing subassembly MA-29, joint # 15. ZPMC was chasing the crack weld on joint # 15 but it was still pending at the end of the shift.

The QA inspector observed that ZPMC performed MT verifications to the skin D (cover passes weld joints 3, 4, 6, 7, 9, 10, 12 & 13) and skin E (cover passes weld joint # 1, 2, 4 & 7). ZPMC found that welds were in compliance with the contract documents. The QA inspector observed that ZPMC verifications appeared to be in compliance with the contract documents.

3	UT verifications to the Corner connections plates SA-42.		
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The QA inspector performed 10 % Ultrasonic testing (UT) verifications at the weld joint # 10 (corner joint) shear link corner connection plate for subassembly SA-42. The QA inspector discovered that the weld areas tested appeared to be

WELDING INSPECTION REPORT

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in general compliance with AWS D1.5 2002. See UT report TL_6027 generated on this date.

4 OBG Fabrication

The QA inspector observed ZPMC performing tack welding operations at the junction of the WT stiffeners to the bottom plate BP-6, plate PL-37A and BP-5, PL-34D segments 3B and 3A. The QA inspector performed random verifications of the welding parameters. The QA inspector found that welding appeared to be in general compliance with contract documents.

The QA inspector observed welding operator Huang Xin Lan performing welding operations with the submerged arc welding process at the floor beam splice subassembly, weld joint FB025-02-080. The QA inspector performed random verifications of the welding parameters. The welding parameters appeared to be in compliance with the contract documents.

5 UT to the Skin D and E Tower Mock-up 114 M Lower

The QA inspector performed 10 % Ultrasonic testing (UT) verifications at the junction of the skin C to longitudinal stiffeners weld joints # 5, 8 & 11 and at the skin D to longitudinal stiffeners weld joints # 5 & 8. The QA inspector found that the weld areas tested appeared to be in general compliance with AWS D1.5 2002. See UT report TL_6027 generated on this date.

Summary of Conversations:

The QA inspector did not have any relevant conversation on this date.

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.

Inspected By:	Acuna,Alfredo	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
