

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-025835**Date Inspected:** 17-Jul-2011**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>	N/A	<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>Bridge No:</b>	34-0006	<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
		<b>Component:</b>	OBG Components	

**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

## Trial Assembly Area

Caltrans and ABF have agreed to conduct visual inspection (VT) and magnetic particle inspection (MT) of welds as part of a special joint inspection program. In response to ABF NDT Inspection Notification Sheets (NWIT) #09764 for MT of the following:

This QA Inspector performed random VT and then MT of approximately 15% of the area previously tested and accepted by ABF Quality Control personnel. This QA Inspector generated an MT report for this date and provided a turnover to dayshift personnel for tracking of these welds. The members were identified as follows:

OBG Segment 13AW, SEG3013D. The weld designations reviewed were: 228, 231, 060, 065, 090, 095, 100, 078, 108. No apparent VT or MT indications were observed. ABF personnel reported no apparent VT or MT indications were observed in weld designations SEG3013D-225, 234, 250045, 050, 075, 080, 105, 115, 120, 186, 048, 051, 060, 066, 070, 078, 120, 132 also listed on NWIT #09764. No apparent VT indications were observed by this QA Inspector, except the surface of the cope hole at the end of weld 132 was rough and irregular in shape. No MT was performed by this QA Inspector on those welds. Weld designation SEG3013D-150 was also listed on NWIT #09764 and ABF personnel reported no apparent VT or MT indications were observed. However, weld designations SEG3013D-102, 150 had rough, irregular surfaces in and at the cope holes and overlap and incomplete fusion in the welds surface requiring grinding and possibly weld repair. The noted welds were rejected

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by this QA Inspector based on VT for the noted reasons.

## Heavy Dock

This QA Inspector also randomly observed the following on the heavy dock in response to Bolting Inspection Notification Sheet No. 00698:

OBG Segment 14W, longitudinal diaphragms on north and south sides, panel points 125~126 and panel points 126. 6~127: ZPMC workers performed final ASTM A325M bolt tightening verification of bolt sets noted below at the direction of ZPMC QC Zhang Lin (QC1) using ZPMC calibrated wrench #X02-777. No less than 10% of the ASTM A325 bolt sets at each connection were torque tested. QC1 informed this QA Inspector that he had no information regarding the bolt sets installed at these locations. This QA Inspector was unable to accurately track the bolt tightening verification of bolt sets because of QC1's inability to provide any of the bolt information, including sizes, lot numbers and RoCap test results. This QA Inspector informed QC1 that for the test to continue, ZPMC would need to provide the noted information. QC1 informed this QA Inspector that the information could only be provided after 0700 hours. This QA Inspector informed QC1 that the day shift would be on site at 0700 hours and the test could continue at that time. This QA Inspector informed day shift QA Inspectors of the work in progress.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

## Summary of Conversations:

As noted 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, 150-0042-2372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Goulet, George	Quality Assurance Inspector
<b>Reviewed By:</b>	Riley, Ken	QA Reviewer

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