

**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 #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016467**Date Inspected:** 24-Aug-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1100**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** John Pagliero**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 Section**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and to monitor American Bridge/Fluor (ABF) welding operations.

The following observations were made:

- 1) At weld joints E2/E3 - LS-2, inside the OBG section: ABF welding personnel Xiao Jian Wan (#9677) was using grinding on the completed weld. QC Inspector John Pagliero was present.
- 2) At weld joints E2/E3 - LS-4, 5 and 6, inside the OBG section: ABF welding personnel were performing grinding on the completed welds. QC Inspector John Pagliero was present.
- 3) At weld joints E3/E4 - LS-6, inside the OBG section: ABF welding personnel Hua Qiang Hwang was performing Shielded Metal Arc Welding to build up (butter) the root gap. QC Inspector John Pagliero was present.
- 4) 5E/6E - D1 and D2, outside the OBG section: ABF welding personnel Rory Hogan (#3186) and Jeremy Dolman (#5042) are setting up equipment to start production welding.

At weld joints E2/E3 - LS-2, inside the OBG section this QA Inspector observed ABF welding personnel Xiao Jian Wan (#9677) was using a power grinding to remove excessive weld reinforcement and a power sanding disk

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## WELDING INSPECTION REPORT

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to contour the weld. QC Inspector John Pagliero was present. The work was in progress during this QA Inspector's shift, welding at this location was not observed.

At weld joints E2/E3 - LS-4, 5 and 6, inside the OBG section this QA Inspector observed ABF personnel performing grinding on the completed welds to remove excessive weld reinforcement and a power sanding disk to contour the welds. This QA Inspector was present when QC Inspector John Pagliero was asked to perform a visual inspection of the welds and observed him mark several areas one each weld for additional grinding to remove excessive weld reinforcement. The work was in progress during this QA Inspector's shift, welding at this location was not observed.

At weld joints E3/E4 - LS-6, inside the OBG section this QA Inspector observed ABF welding personnel Hua Qiang Hwang was performing Shielded Metal Arc Welding to build up (butter) the root gap. This QA Inspector observed QC Inspector John Pagliero had marked the gap as being 13 mm wide prior to the start of welding. This QA Inspector performed a verification of the welding parameters and observed the following; 130 amperes using a 3.2 mm 9018H4R electrode. This QA Inspector also verified the preheat temperature to be greater than 100°C prior to the start of welding after in process grinding was performed. The work observed appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-1012-3. This QA Inspector observed QC Inspector John Pagliero periodically verify the preheat temperature was being maintained and the work in general was in accordance with the WPS specified above. This QA Inspector observed the electrodes were stored in a heated container with a temperature reading of 278 degrees F prior to use.

At weld joint E5/E6-D1 and D2, outside the OBG section this QA Inspector observed ABF welding personnel Rory Hogan (#3186) and Jeremy Dolman (#5042) had completed back gouging the weld joint. QC Inspector Jim Cunningham was present and informed this QA Inspector he had completed and accepted the visual and Magnetic Particle Testing (MT) on the back gouged weld late yesterday. This QA Inspector the preheating blankets and Flux Cored Arc Welding (FCAW) track system was being set up. ABF welding personnel Rory Hogan (#3186) informed this QA Inspector welding could start later this date. This QA Inspector did not observe welding at this location this date.

In general the work observed appeared to comply with the contract requirements.

### **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 Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Hager,Craig	Quality Assurance Inspector
<b>Reviewed By:</b>	Levell,Bill	QA Reviewer

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