

**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 #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026938**Date Inspected:** 20-Dec-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** As noted below**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:** SAS OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

- 12W/13W/D3 R1 (Exterior)
- 13W/14W/A5 (Interior)
- 12W/13W/A1.2 (Interior)
- 3" Compressed Air Pipe Tower (Exterior)

- 12W/13W/D3 R1 (Exterior)

This QA Inspector randomly observed ABF welder Jeremy Dolman performing the excavation operation of an ultrasonic rejectable indication on "D3" located at "Y" 1530 mm: (28 mm wide; 320 mm length; and 25 mm in depth). This QA Inspector observed QC Inspector William Sherwood perform a Magnetic Particle Inspection (MT) of the excavation to determine the soundness of the metal. Upon completion of the testing this QA Inspector verified that no rejectable indications were present.

This QA Inspector randomly observed ABF welder Jeremy Dolman (Welder ID 5042) performing the repair welding operation of an ultrasonic indication as per the Shielded Metal Arc Welding (SMAW) process in the (4G) overhead position on "D3" 12W/13W on the exterior of the OBG. This QA Inspector observed the use of 1/8" 3.2 mm E7018-H4R electrodes and QC Inspector William Sherwood verify that the preheat temperature was at the

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minimum of 250 degrees F and that the welding parameters (Amps=135) were in accordance with WPS D1. 5-1000- Repair. The welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications.

### 2. 13W/14W/A5 (Interior)

This QA Inspector randomly observed ABF welding operator Richard Garcia (ID 5892) performing the Flux Core Arc Welding with gas (FCAW-G) process in the (4G) overhead position on face B of "A" deck, at 13W/14W section A5 of the OBG. This QA Inspector observed QC Inspector William Sherwood monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-3110-4. The parameters were recorded as (A=250/V=23.2/TS=150/HI=2.3). This QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appears to be in general conformance to the contract requirements.

### 3. 12W/13W/A1.2 (Interior)

This QA Inspector randomly observed ABF welding operator Rory Hogan (ID 3186) performing the Flux Core Arc Welding with gas (FCAW-G) process utilizing a "Bug-O" motorized rail system with a magnetic base attached in the (4G) overhead position on face "B" of deck plate "A1.2", at 12W/13W of the OBG. This QA Inspector observed QC Inspector William Sherwood monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-3110-4. The parameters were recorded as (A=250/V=23.3/TS=171/HI=2.04). This QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appears to be in general conformance to the contract requirements.

### 4. 3" Compressed Air Pipe Tower (Exterior)

This QA Inspector observed F.W. Spencer welder Damian LLanos ID# 6645 performing Shielded Metal Arc Welding (SMAW) in the 2G horizontal position on 3 inch schedule 80 pipe located at the 90 m level of the Tower. Upon completion of the welding, the pipe is placed at the elevation indicated in the corresponding weld number. This QA Inspector verified the fit up of the joints and found it to be satisfactory. This QA Inspector observed QC Inspector Steve Jensen monitoring the welding to ensure the welding parameters were in compliance pertaining to WPS-1-12-1 Revision 2 (1.12). The welder was observed implementing 6010 electrodes in the root pass with the balance using 7018 electrodes. The QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work listed below was completed on this date and appeared to be in general conformance with the contract documents.

46/3/T/20

1/.5/D/13

Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report. The issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

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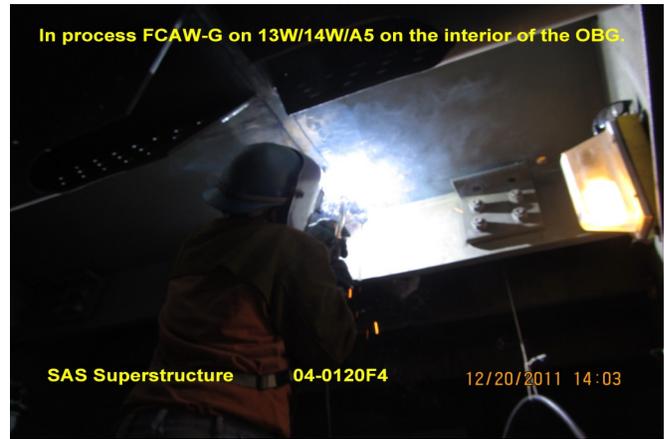
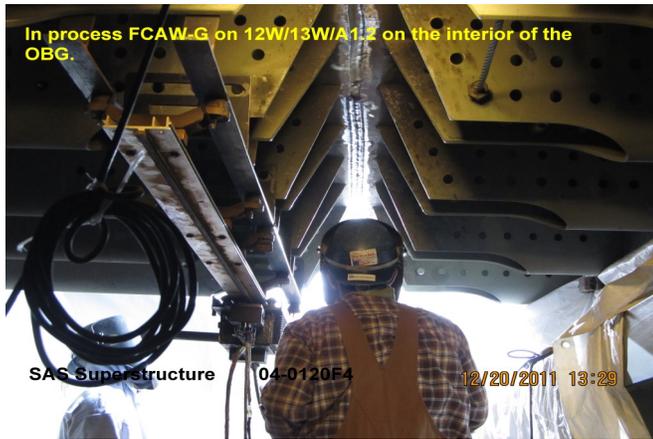
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## Summary of Conversations:

The were no pertinent conversations to 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 Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

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

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