

**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:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029261**Date Inspected:** 15-Mar-2013**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**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:

This QA Inspector randomly observed the ABF welder, Mike Jimenez #4671, perform the SMAW process on the Deck Access Hole (DAH) located at OBG E12 and identified as weld no. 12E PP116.5-E2 utilizing the WPS ABF-D1.5-1040C-CU. The welder was observed preheating the welds prior to welding. Other welding parameters as inspected by the QC Inspector were recorded as 135 amperes and appeared to be in compliance with the WPS noted above. The QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was in progress and appeared to be in general conformance with the contract documents.

This QA Inspector randomly observed ABF welder, Guo Wu Chen #1556, perform the SMAW of the diverter bars located at 13W PP120 to PP124.5 on the west OBG. The welding was performed in the horizontal (2G) position utilizing the WPS ABF-D1.5-F1200A. The welder was observed preheating the welds prior to welding. Other welding parameters as inspected by the QC Inspector were recorded as 136 amperes and appeared to be in compliance with the WPS noted above. The QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was in progress and appeared to be in general conformance with the contract documents.

This QA Inspector randomly observed ABF welder Wai Kit Lai #2953 utilize the Carbon Arc Gouging (CAG) method on the East Skyway lifting lug Hole #2 on the interior of the Skyway. This QA Inspector observed the

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welder remove metal from the bottom side of the root and observed QC perform a Magnetic Particle Testing (MPT) of the back gouge to ensure soundness of the metal. It was observed that no indications were present and this QA Inspector observed the welder perform the SMAW process in the 4G overhead position in accordance with ABF-WPS-D1.5-1030-Revision 1. QC was observed monitoring the welding and the parameters as they applied to the above mentioned WPS and noted that the work at this location was in progress and appeared to be in general conformance with the contract documents.

This QA Inspector randomly observed ABF welders Chris Bruce #8901 perform the SMAW process on the Deck Access Hole located at 12W PP116.5-W2. The welder was observed utilizing WPS ABF-D1.5-1040C-CU for SMAW and was observed preheating the welds prior to welding. Other welding parameters as inspected by the QC Inspector were recorded as 136 amperes and appeared to be in compliance with the WPS noted above. The QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was in progress and appeared to be in general conformance with the contract documents.

This QA Inspector performed Magnetic Particle (MT) testing on the Skyway lifting lug hole #5. This QA Inspector performed MT testing utilizing the yoke method in conformance with ASTM E 709 and the standard of acceptance with D1.5 section 6.26.2.1. A total of 100% of the welds length was tested. This QA Inspector noted that no rejectable indications were found at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work at this location appeared to be in general conformance with the contract specifications.

This QA Inspector performed an Ultrasonic (UT) inspection on the Skyway lifting lug hole #5. These welds were previously accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, Section 6.13 and the UT Acceptance-Reject Criteria Table 6.3. This QA Inspector noted that no rejectable indications were found at the time of testing. This QA Inspector generated a TL-6027 UT report on this date. The completed work at this location appeared to be in general conformance with the contract specifications.

This QA observed QC Inspector William Sherwood and Salvador Merino performing welding parameter checks such as voltage, amps, electrodes and preheats throughout the day. The non-destructive testing methods utilized by the QC Inspectors were Visual Testing (VT), Magnetic Particle Testing (MPT) and Ultrasonic Testing Shear Wave (UTSW). The QC Inspectors were observed performing inspection per the applicable code and or contract criteria. Unless otherwise noted, all work observed on this date appeared to generally comply with the contract documents.

### **Summary of Conversations:**

Conversations were relevant to work performed.

### **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 Gary Thomas 916-764-6027 , who represents the Office of Structural Materials for your project.

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