DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-028281
Date Inspected: 27-Aug-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1700
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:

12E PP115.5-BW1 (Interior)

This QA Inspector at random intervals made observations of Shielded Metal Arc Welding (SMAW) in the 3G vertical position on the beam web at 12E PP115.5-BW1 on the interior of the OBG. ABF/JV qualified welder Chris Bowles #9317 was observed using E7018-H4R electrodes drawing amperage of 134 and QC Inspector Salvador Merino was present to monitor the welding and the parameters as they pertain to ABF-WPS-D1.5-1040A. Between passes the welder was observed cleaning the work using a small disc grinder as QC measured the inter-pass temperatures with Tempilstik Heat Indicators. On a subsequent observation, it was noted that the welder was continuing the in process welding. This QA Inspector noted that the 3.2mm electrodes were stored in electrically heated thermostatically controlled oven after removal from the sealed containers. The exposure limits of the electrodes appeared to comply with the minimum storage oven temperature of 120 degrees Celsius as per the contract documents. The welding parameters and surface temperatures were verified by the QC inspector's utilizing a Fluke 337 clamp meter to measure the electrical welding parameters. At the time of the observations no issues were noted by the QA.

12E PP116.5-PS3 (Interior)

This QA Inspector randomly observed ABF/JV qualified welder Deli Zhang #4735 perform the SMAW process in the 2G horizontal position on the plate stiffener located at 12E PP116.5-PS3 on the interior of the OBG. QC Inspector Salvador Merino was observed monitoring the welding on the material the pre-heat and parameters as they pertain to ABF-WPS-D1.5-1040A. The welder was observed drawing 136 amperes with the 3.2mm E7018-H4R electrodes and was noted as cleaning the work between passes utilizing a small disc grinder. The welder completed PS1 and PS2 earlier in the shift and began work on PS3. This 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 specifications.

12E/13E-C1.1 (Interior)

This QA Inspector randomly observed the excavation operations of Ultrasonic rejectable indications on the Complete Joint Penetration (CJP) joint of Seismic Performance Critical Member (SPCM) material at 12E/13E-C1. 1 on the interior of the OBG. This QA Inspector observed ABF/JV qualified welder Richard Chouinard #8959 performing the Carbon Arc Gouging (CAG) method to remove metal from the material. The welder was observed cleaning up the excavations utilizing a small disc grinder and a de-burring drill. Upon completion of the excavations, Quality Control (QC) Inspector Salvador Merino performed a Magnetic Particle Inspection (MT) of the sites to determine soundness of the metal and observed no indications, QC then measured the dimensions of the excavations for length, width and depth.
This QA Inspector recorded the dimensions of the excavations as:

Y+390mm: 410mm in length, 30mm wide and 10mm deep.

Prior to welding, QC Inspector Salvador Merino was observed monitoring and measuring the pre-heat temperatures and parameters as they pertain to ABF-WPS-D1.5-1004-Repair. This QA Inspector made random observations of SMAW in the 3G vertical position and noted no issues with the work at this location and no RWR was required for this first time weld repair. This QA Inspector made subsequent observations throughout the shift to monitor quality and it was noted that the E7018-H4R electrodes were stored properly in a sealed container after being opened and they were drawing amperage of 136. The welder was observed continuing the in process repair welding and this QA Inspector noted that no issues were present at this location. QC Inspector Salvador Merino was also present to monitor the welding and the parameters in the later stages of the shift. This QA Inspector noted that the work at this location was completed on this date and appeared to be in general conformance with the contract specifications.

Summary of Conversations:
No pertinent conversations today.

WELDING INSPECTION REPORT

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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.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer