

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 #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014481**Date Inspected:** 24-May-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1100**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1800**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Tony Sherwood**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 Sections**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 joint E3/E4-C: This QA Inspector observed an area of the weld had been excavated after QC personnel had rejected the area during Ultrasonic Testing. This QA Inspector did not observe welding performed at this location this date.
- 2) At weld joint E4/E5-D-2: ABF welding personnel Jordan Hazelaar (#2135) was performing production welding with QC Inspector Bonifacio Daquinag Jr. present.
- 3) At weld joint W1/W2-E1 and E2: This QA Inspector observed ABF welding personnel Rory Hogan (#3186) and Jeremy Dolman (#5042) setting up equipment to begin production welding, but welding was not observed at this location this date.
- 4) At weld joint E5/E6-A1 thru A5: This QA Inspector observed ABF welding personnel James Zhen (#6001) was using the Shielded Metal Arc Welding Process (SMAW) to fill in low areas marked by QC personnel. QC Inspector Tony Sherwood was present.

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5) This QA Inspector randomly observed QC Inspector Tony Sherwood was present while various ABF personnel were welding Welder Qualification/Operator Test plates.

This QA Inspector observed at weld joint E3/E4-C an excavation in the weld had been performed. QC Inspector Steve McConnell was present and stated the excavation was due to a reject during the UT inspection. ABF welding personnel Rory Hogan (#3186) and Jeremy Dolman (#5042) were also present and stated they had performed the excavation but that repair welding would not be performed this date. QC Inspector Steve McConnell stated he had performed and accepted visual and Magnetic Particle Testing (MT) of the excavation. This QA Inspector performed a visual verification and observed the excavation had the following approximate dimensions: 50 mm long, 12 mm wide and 6 mm deep. See photo below.

At weld joint E4/E5-D-2 this QA Inspector randomly observed ABF welding personnel Jordan Hazelaar (#2135) was performing production welding using both the Flux Core Arc Welding (FCAW) and Shielded Metal Arc Welding (SMAW) processes. The welding was being performed where the Submerged Arc Welding (SAW) equipment could not access due to size. This QA Inspector observed QC Inspector Bonifacio Daquinag Jr. was present and monitoring the welding. This QA Inspector randomly observed as QC Inspector verified the FACW welding parameters as follows: 230 amperes and 32.4 volts. This QA Inspector performed a verification of the SMAW welding parameters and observed the following: 120 amperes using a 4 mm diameter E7018 electrode. The welding observed appeared to comply with Welding Procedure Specification (WPS): ABF-WPS-D15-3040A-1 for the FCAW process and ABF-WPS-D15-1040B for the SMAW process.

At weld joint E5/E6-A1 thru A5 this QA Inspector randomly observed ABF welding personnel James Zhen (#6001) was using the Shielded Metal Arc Welding Process (SMAW) process to fill in low areas previously marked by QC personnel. This QA Inspector observed QC Inspector Tony Sherwood was present and monitoring the welding. This QA Inspector performed a verification of the welding parameters and observed 120 amperes with a 3.2 mm diameter E7018 electrode. The welding observed appeared to comply with WPS ABF-WPS-D15-Repair.

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



Summary of Conversations:

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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.

Inspected By:	Hager,Craig	Quality Assurance Inspector
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Reviewed By:	Levell,Bill	QA Reviewer
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