

**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-028010**Date Inspected:** 18-Jul-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** jobsite**CWI Name:** William 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**Summary of Items Observed:**

At the start of the shift this Quality Assurance Inspector (QA) traveled to the SAS project site and observed the work and the inspection performed by American Bridge/Fluor Enterprises (AB/F) welding and Quality Control (QC) personnel. The observations and inspections were performed as noted below:

**13W/14W OBG Drop-In**

This QAI observed Rick Clayborn excavating utilizing Carbon Arc Gouging from bottom of Deck Splice Weld 13W-PP122.2 at the following locations:

Y=4430mm D=10mm W=15mm L=100mm

Y=5370mm D=10mm W=15mm L=110mm

Y=5870mm D=10mm W=16mm L=80mm

Y=6670mm D=9mm W=15mm L=80mm

Y=7540mm D=10mm W=15mm L=90mm

Y=7935mm D=9mm W=15mm L=90mm

Y=8630mm D=10mm W=15mm L=110mm

QAI witnessed William Sherwood Quality Control Technician perform Magnetic Particle Testing to the above listed excavation of weld 13W/14W-PP122.2. Mr. Sherwood performed testing at a frequency of 100%, this QAI performed a QA verification Magnetic Particle Test at a frequency of 10%. See the Magnetic Particle Testing report dated 7/18/12 for more information.

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This QAI observed Tran Chau welding the above listed repair excavations utilizing the Shield Metal Arc Welding to the parameters set forth in the approved Welding Procedure Specification. During welding operations a 350F preheat was being maintained using induction heating blankets. At the conclusion of welding operations post heat was initiated at 450F for four hours.

This QAI observed Welder Jeremy Doleman using a rosebud torch to preheat stiffener splice 122.2 LS-3 to a QC recorded, QA verified temperature of 200F. Preheat temperature was measured using a Tempil Stick. This QAI noted QC William Sherwood recording preheat temperature whenever there was a stop in work.

QAI witnessed the welding of stiffener splice 122.2 LS-3 by welder Jeremy Doleman (ID#5042) utilizing the Shield Metal Arc Welding Process in the 3G position using E9018 consumable electrodes. The QC recorded and this QAI verified that the weld metal was being deposited to the parameters of the applicable Welding Procedure Specification. Welder Doleman was observed using the stringer method and good workmanship practices in regard to interpass cleaning.

This QAI observed Welder Mike Jiminez using a rosebud torch to preheat stiffener splice 12W-13W LS-2 to a QC recorded, QA verified temperature of 200F. Preheat temperature was measured using a Tempil Stick. This QAI noted QC William Sherwood recording preheat temperature whenever there was a stop in work.

### 12W OBG Corner Drop-In

QAI witnessed the welding of stiffener splice 12W-13W LS-2 by welder Mike Jiminez utilizing the Shield Metal Arc Welding Process in the 3G position using E9018 consumable electrodes. The QC recorded and this QAI verified that the weld metal was being deposited to the parameters of the applicable Welding Procedure Specification. Welder Jiminez was observed using the stringer method and good workmanship practices in regard to interpass cleaning.

### PQR

This QAI observed Stud Welding Procedure Qualification Record ABF-PQR-060 Stud performed in the 1G and 4G positions by stud welders Jacob Stafford, and Henry Hernandez utilizing Nelson Stud welding machine model Series A000 Model 101 coupled with a TRW 5# SG0092 Stud Gun. Testing was performed per the requirements of Section 7 of the American Welding Society D1.5 Bridge Welding Code. Testing was witnessed by Quality Control Inspector Fred Michael.

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## Summary of Conversations:

There were general conversations with Quality Control Inspector William Sherwood, at the start of the shift regarding the location of welding, inspection personnel scheduled for this shift. All observations were relayed to Bill Levell.

## 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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**Inspected By:** Daggett, Matt

Quality Assurance Inspector

**Reviewed By:** Levell, Bill

QA Reviewer