

**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-030064**Date Inspected:** 23-Sep-2013**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:** Job Site**CWI Name:** Scott Kortum**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 Tower**Summary of Items Observed:**

Caltrans Quality Assurance Inspector (QA) Joe Adame arrived at the American Bridge/Fluor (ABF) JV job site between the times noted above in order to monitor ABF Quality Control activities and the in process work being performed by ABF production personnel. The following items were observed:

ESW Repair Excavation Welding

RWR-201308-002

ESW N-043, Location "P"-Face B:

The QA Inspector observed ABF welder Donald Plumb (WID-0891) performing Shield Metal Arc Welding (SMAW) on the repair excavation of Electroslag Weld (ESW) "P" Face B @ Original Y-1330mm. Location of the repair is as follows:

Repair excavation length: (Y-1180mm~1480mm) L=300mm, W=63mm, D=36mm

At the start of the shift Mr. Plumb was observed having equipment issues with the Miller Proheat 35 maintaining the 300° Fahrenheit minimum. Mr. Plumb stated that the temperature sensor cable had become damaged and he had replaced it. ABF QC Inspector Scott Kortum and the QA Inspector later verified that the temperature reading was correct on the Miller Proheat 35 and the welding repair surface was verified to be over 300° Fahrenheit using temperature indicators. Mr. Plumb assisted in keeping the preheat consistent by using a propylene torch at Face B. Mr. Plumb was later observed performing SMAW at the repair location. The electrode in use was 4.0mm diameter electrode (E7018-1 HR4) per ABF Welding Procedure Specification (WPS) ABF-WPS-D15-1000-Repair Rev.3. The QC Inspector was observed performing welding parameters verifications at random intervals throughout the shift. The welding observed appeared to be in compliance with the WPS noted

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# WELDING INSPECTION REPORT

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ESW Repair Excavation Welding

RWR-201308-009

ESW W-042, Location "M"-Face B:

The QA Inspector observed ABF welder Mike Jimenez (WID-4671) performing Shield Metal Arc Welding (SMAW) on the repair excavation of Electroslag Weld (ESW) "M" Face B @ Original Y-4400mm. Location of the repair is as follows:

Repair excavation (Y=-4210mm~4450mm) L=340mm, W-47mm, D-54mm.

Prior to welding, Mr. Jimenez was observed preheating the weld to over 300° Fahrenheit using the Miller ProHeat 35 with heat induction blankets and a propylene torch. Mr. Jimenez used a temperature indicator. The welding electrode in use was 4.0mm diameter electrode (E7018-1 HR4) per ABF Welding Procedure Specification (WPS) ABF-WPS-D15-1000-Repair Rev.3. The welding process in use was the SMAW process. ABF QC Inspector Scott Kortum performed welding parameters verifications at random intervals throughout the shift and informed the QA Inspector that the average welding amps were at -177. The welding observed appeared to be in compliance with the WPS noted above. Welding at this location is approximately 60% complete.



### Summary of Conversations:

Only general conversations with ABF/JV QC NDT personnel relevant to work and testing performed during this shift.

### 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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**Inspected By:** Adame,Joe

Quality Assurance Inspector

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**Reviewed By:** Riley,Ken

QA Reviewer