

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

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-029935**Date Inspected:** 20-Aug-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:** Bernie Docena, Jesse Cayabyab**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 functions and the in process work being performed by ABF production personnel. The following items were observed:

ESW Repair excavation

RWR-201307-009

ESW E-045, Location "F"- B:

The QA Inspector was later present to observe ABF welder Wai Kit Lai (WID-2953) performing Shield Metal Arc Welding (SMAW) of the repair excavation on Electroslag Weld (ESW) "F", at face B. Locations are listed as detailed in Request for Weld Repair (RWR) 201307-009 from Ultrasonic Testing indications designated for repair.

The repair locations were noted as:

Y= 6350mm~6690mm

L= 340mm

W= 60mm

D= 52mm

Prior to welding, the welder was observed preheating the weld to over 300° Fahrenheit prior to welding using the Miller ProHeat 35 with heat induction blankets. The welder was using 4.0mm diameter electrode (E7018-1 HR4) per ABF Welding Procedure Specification (WPS) ABF-WPS-D15-1000-Repair Rev.3. The welding parameters were verified by ABF QC Inspector Bernie Docena at random intervals throughout the shift. The welding repair is approximately 45% complete at this location. The welding observed appeared to be in compliance with the WPS noted above.

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ESW Repair excavation

RWR-201308-004

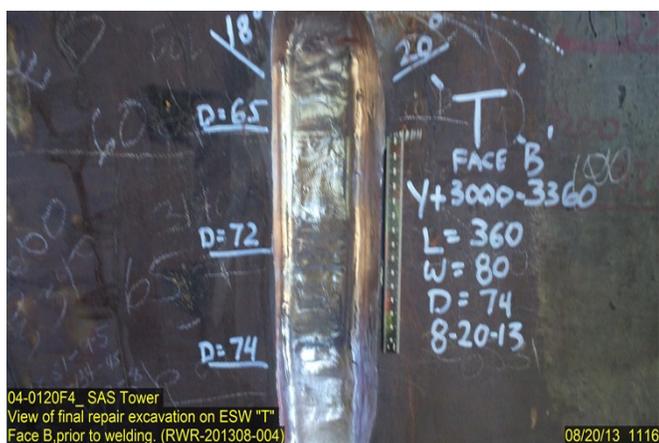
ESW S-043, Location "T"-Face B:

The QA Inspector observed ABF welder Mike Jimenez (WID-4671) performing excavation of ESW "T" Face B @ Y's-3090mm,3110,3125,3170,3190 to verify indications observed during Ultrasonic Testing pulse/echo & pitch/catch. Mr. Jimenez was performing the excavation using an air carbon arc gouging and a grinder. Mr. Jimenez was instructed by ABF QC Inspector Bernie Docena to notify him when indications are visible to allow QC/QA time to inspect the excavation. Location of the repair is as follows:

Weld excavated at 60mm dp- 10mm long planar indication observed @ 3140.

Weld excavated at 72mm dp- No indications observed.

Excavation Y=3000mm~3360mm, L=360mm, W= 80mm, D= 74mm. After grinding to bright metal the ABF QC Inspector Bernie Docena performed MT testing of the excavation. The QC Inspector stated the excavation appears to be free of discontinuities and he would complete ABF daily inspection report and magnetic particle testing report to detail the findings. The QA Inspector also performed MT inspection of the final excavation. After excavation Mr. Jimenez was observed setting up to perform SMAW repair welding on this date. See TL-6028 for additional details on items inspected on this date.



## 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:** Mertz,Robert

QA Reviewer