

**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 #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029907**Date Inspected:** 13-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

<b>CWI Name:</b>	Jesus Cayabyab & Bernie Docena			<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Bridge No:</b>	34-0006			<b>Component:</b>	See Below		

**Summary of Items Observed:**

Quality Assurance Inspector (QAI) Edward Leach was at the American Bridge/Flour (ABF) job site at Yerba Buena Island between the times noted above in order to monitor Smith Emery Quality Control (QC) functions and the in process work being performed by ABF personnel. The following items were observed:

**Tower Skirt Ring Beam**

The QAI periodically observed ABF welding personnel Gao Wu Chin and Wai Kit Lai utilizing the Shielded Metal Arc Welding (SMAW) in the vertical (3G) position with Atom Arc E7018-1 HR4, 1/8" diameter electrode to weld the Complete Joint Penetration (CJP) field splice for the tower skirt ring beam on north CD Corner of the north shaft. The fit up was visually accepted by Bernie Docena and verified by the QAI. As welding continued the QAI periodically verified welding amperage at approximately 132 amperes. Several verifications of this reading were made throughout the day with similar readings. The Welding Procedure Specification (WPS) designated for this work was identified as ABF-WPS-D1.5-1020, Rev1. The QAI was informed by QC Inspector Bernie Docena Welding Procedure Specification (WPS) designated for this work is identified as ABF-WPS-D1.5-1020, Rev1. QC Inspector Bernie Docena was monitoring the work at this location on this date.

**ESW Weld Repair**

The QAI periodically observed ABF welding personnel Donald Plum utilizing the Shielded Metal Arc Welding (SMAW) in the vertical (3G) position with Atom Arc E7018-1 H4R, 1/8" diameter electrode to weld excavation for a weld repair. The welding is taking place in the inner chamber between the north & east shaft at joint F, weld #E-045 on Face A side for a repair designated as 201307-008. QAI reviewed a copy of ABF repair procedure and noted excavation dimensions as 190mm length, 55mm width, 40mm depth, y dimension of 650mm to 840mm.

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# WELDING INSPECTION REPORT

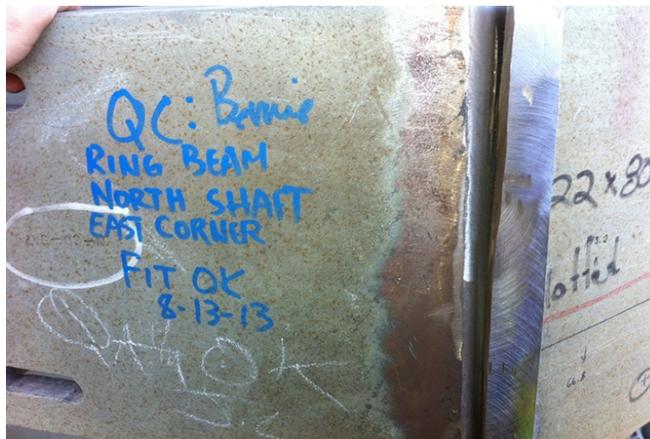
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The QAI observed the interpass temperature was maintained at approximately 400 degrees Fahrenheit with electric heating coil blankets through a heat induction system. As welding continued the QAI periodically verified welding amperage at approximately 136 amperes. Several verifications of this reading were made throughout the day with similar readings. The Welding Procedure Specification (WPS) designated for this repair was identified as ABF-WPS-D1.5-1000Repair, Rev.3. QC Inspector Bernie Docena was monitoring the progress of this repair on this date.

The welding & workmanship observed on this date appeared to be in general compliance with the contract specifications. The following pictures below detail some of the observations made on this date.



### Summary of Conversations:

General conversations with ABF/JV QC NDT personnel relevant to work 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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<b>Inspected By:</b>	Leach,Ed	Quality Assurance Inspector
<b>Reviewed By:</b>	Mertz,Robert	QA Reviewer

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