

**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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012855**Date Inspected:** 01-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

<b>CWI Name:</b>	Bernard Docena, Jesse Cayabayab			<b>CWI Presentation:</b>	Yes	No	
<b>Inspected CWI report:</b>	Yes	No	N/A	<b>Rod Oven in Use:</b>	Yes	No	N/A
<b>Electrode to specification:</b>	Yes	No	N/A	<b>Weld Procedures Followed:</b>	Yes	No	N/A
<b>Qualified Welders:</b>	Yes	No	N/A	<b>Verified Joint Fit-up:</b>	Yes	No	N/A
<b>Approved Drawings:</b>	Yes	No	N/A	<b>Approved WPS:</b>	Yes	No	N/A
				<b>Delayed / Cancelled:</b>	Yes	No	N/A
<b>Bridge No:</b>	34-0006			<b>Component:</b>	SAS OBG 1E/2E, 2E/3E		

**Summary of Items Observed:**

The Quality Assurance (QA) Inspector, Rick Bettencourt was on site at the job site between the times noted above. The QA Inspector was on site perform the administrative duties as well as randomly observed the in process welding and NDT of the Smith Emery (SE) Quality Control (QC) Inspectors. The following observations were made and described below.

**1E/2E-D1/D2**

The QA Inspector randomly observed the above identified weld had been previously completed and the weld reinforcement ground flush with the adjacent base material. The QA Inspector randomly observed the Smith Emery (S) Quality Control (QC) Inspectors Jim Cunningham and Jesus Cayabayab performing ultrasonic testing (UT) of the complete joint penetration (CJP) groove weld identified above. The QA Inspector observed the QC Inspector locate several UT rejections, and indicate the length and depth directly on the weld. The QA Inspector noted only approximately 1/4" of the weld joint had been tested by the end of the QA Inspectors shift. The QA Inspector randomly observed and noted the UT was in progress for the remainder of the shift.

**1E/2E-E1/E2**

The QA Inspector randomly observed the American Bridge/Fluor (ABF) welders identified as Rory Hogan and Jeremy Doleman were mobilizing and setting up the flux cored arc welding equipment at the above identified location. The QA Inspector randomly observed the above identified weld joint had been back gouged and ground to shiny metal with a weldable profile. The QA Inspector noted the SE QC Inspectors had previously performed magnetic particle testing (MT) for informational purposes prior to backing welding. The QA Inspector noted the ABF welders spend the remainder of the QA Inspectors shift setting up the induction heating blankets and running

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# WELDING INSPECTION REPORT

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the welding leads in preparation of performing the FCAW back weld.

2E/3E-D1/D2

Upon the arrival of the QA Inspector it was observed the above identified weld joint had been completed. The QA Inspector noted the cover pass appeared to be completed on the back weld and the ABF apprentice welders were setting up scaffolding to commence the grinding and removal of the weld reinforcement. The QA Inspector randomly observed the ABF apprentice welders performing the grinding tasks for the remainder of the QA Inspectors shift.

The QA Inspector spent the remainder of the shift updating and organizing the status of the current completed welding and non destructive testing of the transverse field splices. The Organization and updating of current charts and spreadsheets was related to field welding of 1E/2E-A, B, C, D, E, F, 2E/3E-A, B, C, D, E, F, 3E/4E-A, B, C, D, E, F and 1W/2W-A, B, C, D, E and F.

### Summary of Conversations:

The ABF Engineer John Callaghan informed the QA Inspector ABF will not be working on Saturday 4-3-10 due to the holiday weekend. Mr. Callaghan went on to inform the QA Inspector no work or welding will be performed at 1W/2W-A until the after the holiday weekend on Monday 4-5-10.

The QA Task Lead Bill Levell informed the QA Inspector and gave a verbal approval of two ABF welders approval to perform welding. Mr. Levell went on to inform the QA Inspector the ABF welder Song Tao Huang was approved to perform shielded metal arc welding (SMAW) in the 3G/4G positions as well as the SPCM endorsement. In addition Mr. Levell informed the QA Inspector of a newly approved ABF welder identified as Chun Fai Esui who was also approved to perform SMAW in the 3G/4G positions.

### 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.

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<b>Inspected By:</b>	Bettencourt,Rick	Quality Assurance Inspector
<b>Reviewed By:</b>	Levell,Bill	QA Reviewer

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