

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
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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-027480  
**Date Inspected:** 20-Apr-2012

**Project Name:** SAS Superstructure  
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV  
**Contractor:** American Bridge/Fluor Enterprises, a JV

**OSM Arrival Time:** 700  
**OSM Departure Time:** 1730  
**Location:** jobsite

<b>CWI Name:</b>	Steve Jensen	<b>CWI Present:</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 project	

**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and /or monitor American Bridge/Fluor (ABF) welding operations. This Quality Assurance (QA) Inspector, Craig Hager observed the following.

Orthotropic Box Girder (OBG) Deck Access Hole (DAH): This QA Inspector observed work and/or performed QA verifications at the locations noted below.

6E-PP46.5-E5: This QA Inspector randomly observed ABF welding personnel Mike Jiminez (#4671) using the carbon arc process to back gouge the access hole weld from the bottom of the deck. This QA Inspector observed some grinding was performed. This QA Inspector randomly observed QC Inspector Salvador Merino performing Magnetic Particle Testing on the back gouged weld joint. This QA Inspector observed approximately 40-50% of the weld length was marked up indicating additional back gouging was required. See photo below of MT indications of lack of penetration. This QA Inspector observed ABF welding personnel Mike Jiminez (#4671) using a grinder to back gouge the areas marked by QC. This QA Inspector observed the back gouging was not completed this date.

This QA Inspector performed Ultrasonic Testing (UT) verification on the following access hole stiffener welds:

- 8W-PP70.5-W2-LS-E
- 8W-PP70.5-W2-LS-W
- 8W-PP70.5-W2-TS

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# WELDING INSPECTION REPORT

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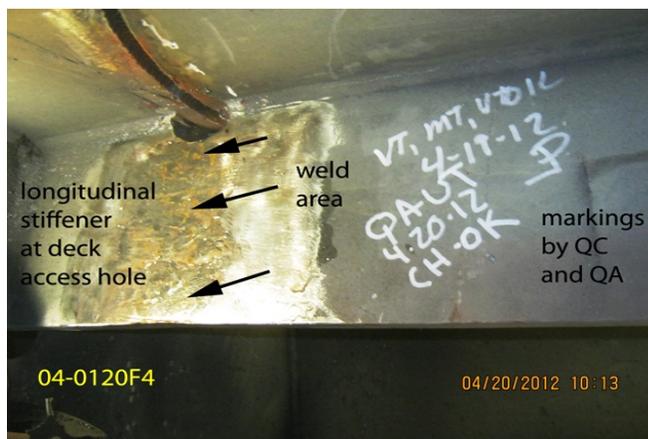
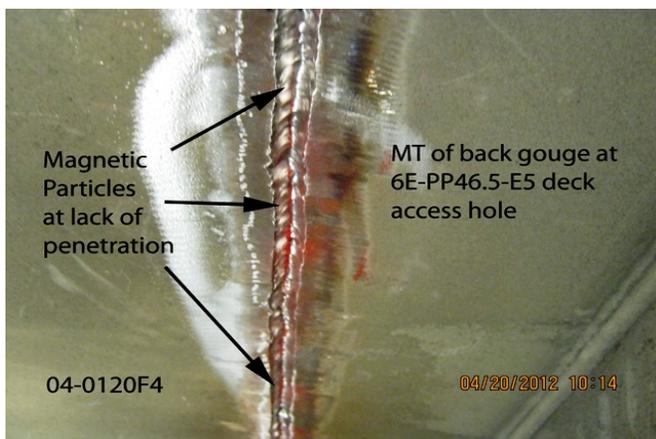
- 6E-PP46.5-E5-LS-E
- 6E-PP46.5-E5-LS-W
- 6E-PP46.5-E5-TS
- 8E-PP61.5-E5-LS-E

The UT verifications performed appeared to comply with the contract requirements, see Ultrasonic Test Report (TI-6027) this date for further details.

F.W. Spencer: This QA Inspector randomly observed F.W. Spencer welding personnel Damien Llanos using the Shielded Metal Arc Welding (SMAW) process to weld piping bosses to the main branch of piping and field piping splices. This QA Inspector observed QC Inspector Steve Jensen verify the following welding parameters; 93 amperes for the 1/8-inch diameter, E6010 electrode used for the root pass and 90 amperes for the 3/32-inch diameter, E7018 electrode used for the fill and cover passes. The welding observed appeared to comply with WPS 1-12-1 Rev-2, being used by QC. This QA Inspector randomly observed the fit up and/or performed the final visual verification on the following welds: 1/DW1/94/NE (boss), 28/2.5/91/NE (field splice) and 28/4/91/NE (field Splice).

### Summary of Conversations:

This QA Inspector had general conversations with American Bridge/Fluor (ABF) personnel, QC personnel and Caltrans personnel during the shift. Except as described above there were no notable conversations.



### 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:** Hager, Craig

Quality Assurance Inspector

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**Reviewed By:** Levell, Bill

QA Reviewer