

**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-027207  
**Date Inspected:** 15-Feb-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>	As noted below	<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 OBG	

**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

## 13E PP118.5 E4 Lifting Lug Hole #2 (Exterior)

This QA Inspector observed QC Inspector Fred Von Hoff measure the planar offset of the 20mm insert for lifting lug hole #2 with "A" deck and found it to be acceptable. The B-U4a CJP joint was pre-heated with a propane burner to 150° F and the QC Inspector was observed measuring the temperature with a 150° Tempilstik. This QA Inspector randomly observed ABF welder Salvador Sandoval (ID2202) performing Shielded Metal Arc Welding (SMAW) in the 1G flat position and in between passes the welder was observed grinding and blending the start/stop edges of the work with a small disc grinder while the QC Inspector measured the inter-pass temperatures. The QC Inspector was noted as monitoring the welding and the parameters to ensure conformance with ABF-WPS-D1.5-1050A-CU and recorded the amperes of the 3.2mm E7018-H4R electrodes as 128. This QA Inspector made subsequent observations to monitor quality throughout the shift and noted that the work at this location was completed on this date and appeared to be in general conformance with the contract documents. This Joint is a Seismic Performance Critical Member (SPCM).

## QA NDT (Exterior)

This QA Inspector performed a Magnetic Particle (MT) Inspection on lifting lug holes #1-4 at 13E PP118.5

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E4 on the exterior of the OBG. This QA Inspector performed the yoke method in conformance with ASTM E 709 and the standard of acceptance with D1.5 section 6.26. This QA Inspector noted that no rejectable indications were found at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work at this location appeared to be in general conformance with the contract specifications.

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10% of the welds at the locations listed above. These welds were previously accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. This QA observed no rejectable indications at the time of testing. This QA generated a TL-6027 UT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

### 13E PP118.5 E4 Lifting Lug Holes #1 and 2 (Interior)

This QA Inspector randomly observed ABF welders Rick Clayborn perform back-gouge operations on face "B" of lifting lug holes #1 and 2 on the interior of the OBG. This QA Inspector observed QC Inspector Fred Von Hoff perform MT testing to ensure the soundness of the metal. This QA Inspector randomly observed the welder perform the SMAW process in the (4G) overhead position with the QC Inspector monitoring the welding to insure the parameters were in accordance with ABF-WPS-D15-1110A-Revision 1. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was completed on this date and appeared to be in general accordance with the contract documents.

### QC NDT (Exterior)

This QA Inspector randomly observed ABF Quality Control Inspector Mr. John Pagliero performing Ultrasonic Testing (UT) inspection on "A" deck lifting lug holes #1-4 at 13E PP119.5 E4 on the exterior of the OBG. This QA Inspector observed that Mr. Pagliero detected a rejectable ultrasonic indication on LLH #4 at y+220mm; 40mm's in length and 8mm's deep with an indication reading of +7db's. The deck at this location is 20mm thick.

### Rail Support Outrigger (Exterior)

This QA Inspector randomly observed ABF welder Eric Sparks (ID3040) perform SMAW in all positions on the outrigger support located at 13E PP117.5 E5. The 6mm all around fillet weld was monitored by QC Inspector Fred Von Hoff for compliance pertaining to ABF-WPS-D1.5 F1200A and recorded the parameters as 130 amperes utilizing a 3.2 mm E7018-H4R electrode. The work was completed on this date and appeared to be in general compliance with the contract specifications.

### Summary of Conversations:

The were no pertinent conversations to report.

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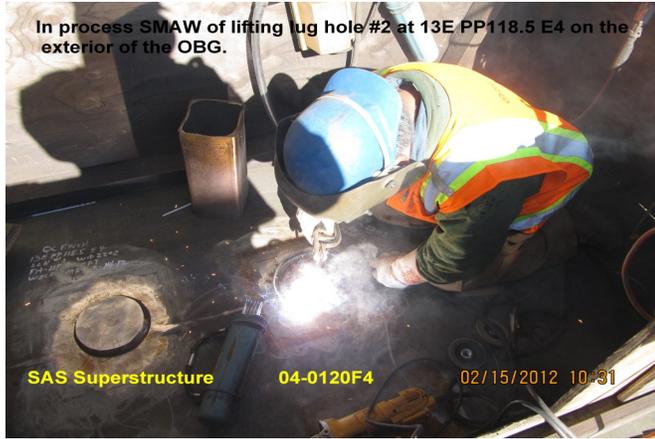
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## Comments

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

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