

**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-027371**Date Inspected:** 26-Mar-2012**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>	As noted below		
<b>Inspected CWI report:</b>	Yes	No	N/A
<b>Electrode to specification:</b>	Yes	No	N/A
<b>Qualified Welders:</b>	Yes	No	N/A
<b>Approved Drawings:</b>	Yes	No	N/A

<b>CWI Present:</b>	Yes	No	
<b>Rod Oven in Use:</b>	Yes	No	N/A
<b>Weld Procedures Followed:</b>	Yes	No	N/A
<b>Verified Joint Fit-up:</b>	Yes	No	N/A
<b>Approved WPS:</b>	Yes	No	N/A
<b>Delayed / Cancelled:</b>	Yes	No	N/A
<b>Component:</b>	SAS OBG		

**Bridge No:** 34-0006**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:

**8W PP61.5 W2-DAH (Interior)**

This QA Inspector randomly observed ABF welder Mike Jimenez (ID 4671) complete the back-gouge operations on face "B" of the Deck Access Hole (DAH) located at 8W PP61.5 W2 on the interior of the OBG. The welder was observed utilizing a small disc grinder to remove weld metal from the weld root side of the joint. This QA Inspector observed QC Inspector Sal Merino perform Magnetic Particle (MT) testing to ensure the soundness of the metal. This QA Inspector randomly observed the welder perform Shielded Metal Arc Welding (SMAW) in the (4G) overhead position while employing 3.2mm E7018-H4R electrodes drawing amperage of 119. QC Inspector Steve Jensen was observed monitoring the welding to insure the parameters were in accordance with ABF-WPS-D15-1010-Revision 1. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appeared to be in general accordance with the contract documents.

**8W PP70.5 W2-DAH (interior)**

This QA Inspector made random observations of SMAW on the DAH located at 8W PP70.5 W2 on the interior of the OBG. ABF welder Eric Sparks (ID 3040) was observed welding in the 4G overhead position

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utilizing 3.2mm E7018-H4R electrodes that were obtained from a remote baking oven verified by this QA Inspector. QC Inspector Steve Jensen was present to monitor the welding and the parameters to ensure compliance with ABF-WPS-D1.5-1010-Revision 1. The welder was observed cleaning the work between passes and employed a small disc grinder to blend the start/stop edges for a smooth transition, as the QC Inspector measured the inter-pass temperatures. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work at this location is in progress and appeared to be in general conformance with the contract specifications.

### 9E PP84.5 E5-LSW (Interior)

This QA Inspector made random observations of ABF welder Todd Jackson (ID 4639) in the 3G vertical position performing the SMAW process utilizing E9018-H4R electrodes on the West Longitudinal Stiffener (LSW) at 9E PP84.5 E5 on the interior of the OBG. The welder was observed grinding the start/stop edges of the work between passes employing a small disc grinder and maintained sanitary workmanship. This QA Inspector noted that QC Inspector Steve Jensen was present to monitor the welding and the parameters to ensure the welding was within compliance with ABF-WPS-D1.5-1012-Revision 0. This QA Inspector also noted that the work was in progress and the parameters and the quality appeared to be in general conformance with the contract specifications.

### 12E PP109.5 E5-DAH (Exterior)

ABF welder Salvador Sandoval was observed performing SMAW on the DAH at 12E PP109.5 E5 in the 1F flat position on the exterior of the OBG. Mr. Sandoval was observed placing fillet welds to close the root utilizing WPS-F1200A with QC Inspector Steve Jensen present to monitor the welding and the parameters. The welder was observed cleaning the work between passes utilizing a small disc grinder, brushes and compressed air. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was in progress and appeared to be in general conformance with the contract documents.

### 13W/14W-LS4, 5 and 6 (Interior)

This QA Inspector randomly observed ABF Quality Control Inspector Jesse Cayabyab performing MT inspection on Longitudinal Stiffeners 4, 5 and 6 at 13W/14W on the interior of the OBG. This QA Inspector observed that Mr. Cayabyab found no rejectable MT indications. The weld areas tested and inspected were 30mm and 35mm thick.

This QA Inspector performed a MT Inspection on the Longitudinal Stiffeners 4, 5 and 6 at 13W/14W on the interior 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.

### 12W/13W-LS5 (Interior)

This QA Inspector performed a UT inspection on approximately 10% of the welds on LS5 at 12W/13W on the

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interior of the OBG. 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.

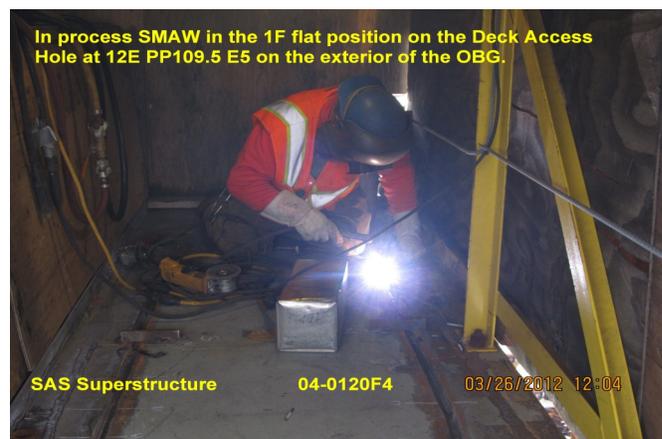
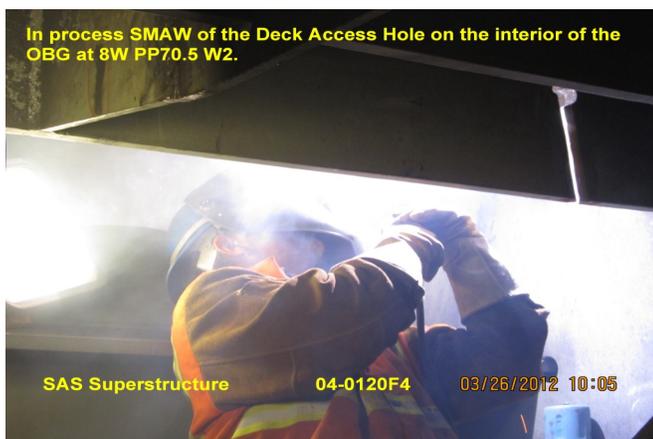
This QA Inspector performed a survey on the DAH's on the Eastbound and Westbound OBG's. The survey was conducted to note progression and chart completed and required work. The survey was conducted as instructed by QAI Lead Danny Reyes.

This QA Inspector recorded the dimensions of the excavations performed by ABF welder Rick Clayborn on the DAH located at 9W PP84.5 W2 on the exterior of the OBG. The rejectable ultrasonic indications were recorded by QC Inspector John Bigler and are listed below.

1. y+100mm: 70mm in length, 20mm wide and 10mm deep.
2. y+445mm: 70mm in length, 20mm wide and 9mm deep.
3. y+545mm: 70mm in length, 15mm wide and 8mm deep.
4. interior (not excavated)
5. y+1685mm: 110mm in length, 30mm wide and 15mm deep.
6. interior (not excavated)
7. y+2140mm: 180mm in length, 25mm wide and 13mm deep.
8. interior (not excavated)
9. y+2900mm: 60mm in length, 25mm wide and 12mm deep.
10. y+3360mm: 80mm in length, 20mm wide and 12mm deep.
11. y+3510mm: 70mm in length, 20mm wide and 11mm deep.
12. y+3660mm: 310mm in length, 20mm wide and 14mm deep.

## Summary of Conversations:

This QA inspector met with QC inspectors John Pagliero, Jesse Cayabyab and Sal Merino to coordinate inspections required and welder assignments.



## Comments

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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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