DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-026729
Date Inspected: 16-Nov-2011

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

CWI Name:	As noted below			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: 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:

1. 12W/13W/F Repair Welding (Exterior)
2. 12W/13W/C1.2/C2 (Interior)
3. 14W/PP126.7/W2.9 Vent Hole (Exterior)
4. 14W/PP126.7/W3.7 Vent Hole (Exterior)

1. 12W/13W/F Repair Welding (Exterior)

This QA Inspector randomly observed ABF welder Mr. Fred Kaddu performing the back-gouge operation of ultrasonic rejectable indications on OBG edge plate section 12W/13W/F located at "Y" location 280 mm: (17 mm wide; 80 mm length; and 8 mm in depth) at "Y" location 1390 mm: (16 mm wide; 100 mm length; and 7 mm in depth).

This QA Inspector randomly observed ABF welder Fred Kaddu (Welder ID 2188) performing the repair welding operation on an excavation as per the Shielded Metal Arc Welding (SMAW) process in the (3G) vertical position on OBG section 12W/13W- weld joint F1 from the exterior of the OBG. This QA Inspector observed QC Inspector William Sherwood verify that the preheat temperature was at the minimum of 125 Degrees F and that the welding parameters (Amps, Volts) were in accordance with WPS D1.5 - 1001 Repair Revision 0. The welding

parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications.

2. 12W/13W/C1.2/C2 (Interior)

This QA Inspector performed Ultrasonic Testing (UT) on approximately 50% of the OBG segment side plate welds at 12W/13W/C1.2/C2. 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.

Orthotropic Box Girder (OBG) section: The QC Documents observed being used by this QA Inspector for the following weld joints appeared to be designated as Seismic Performance Critical Members (SPCM).

3. 14W/PP126.7/W2.9 Vent Hole (Exterior)

This QA Inspector randomly observed ABF welder Mike Jimenez (ID 4671) performing the Shielded Metal Arc Welding (SMAW) process in the (1G) flat position on “A” deck vent hole 14W /PP126.7/W2.9. This QA Inspector observed QC Inspector Sal Merino verify that the preheat temperature was at the minimum of 10 degrees C and that the welding parameters; Amps=285-4.0 mm electrode and Amps=195-4.8 E7018-H4R electrode were in accordance with ABF-WPS-D15-1050A-CU. 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 compliance with the contract specifications.

14W/PP126.7/W2.7 Vent Hole (Exterior)

This QA Inspector observed QC Inspector Sal Merino utilize a Bridge Cam Gage to measure the fit-up of the 20 mm plate in the BU-4a joint on vent hole 14W/PP126.7/W2.7. This QA Inspector verified the fit-up as acceptable and employed a 65°C Tempilstik to ensure the minimum pre-heat temperature had been achieved. This QA Inspector randomly observed ABF welder Mike Jimenez (welder ID 4671) performing the Shielded Metal Arc Welding (SMAW) process in the (1G) flat position and observed the QC Inspector verify the welding parameters were in accordance with the above mentioned WPS. The parameters were recorded as: (Amps=150 for a 3.2 mm electrode). 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 compliance with the approved WPS and the contract specifications.

4. 14W/PP126.7/W3.7 Vent Hole (Exterior)

This QA Inspector observed the QC Inspector measure the planar offset on the 20 mm plate for the B-U-4a joint on vent hole 14W PP126.7/W3.7. Upon approval of the fit-up the ABF welder pre-heated the joint to a minimum of 10°C and began welding in the SMAW process in the (1G) flat position utilizing a 3.2 mm E7018-H4R electrode for the root pass. This QA Inspector randomly observed the QC Inspector monitor the welding and verifying that the parameters were in conformance with the above noted WPS. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work on the exterior side

of the “A” deck vent hole was completed on this date and appeared to be in general conformance with the contract documents.

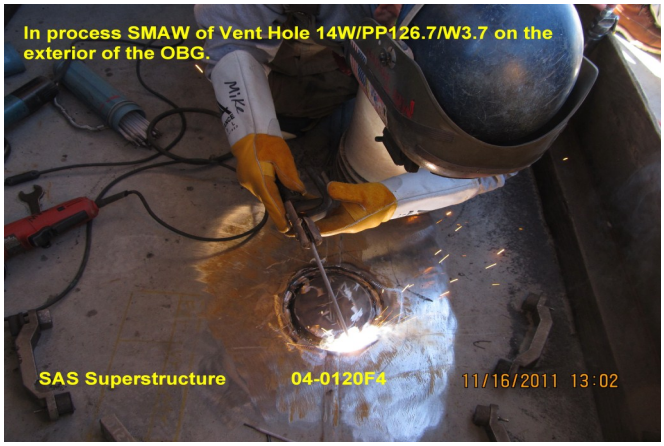
14W/PP128/W3/W3 and W4 (MT) Inspection (Interior)

This QA Inspector randomly observed QC Inspector Sal Merino perform a final magnetic particle inspection of the completed area on OBG “A” deck lifting lug holes section 14W/PP128/W3 at weld locations W3 and W4. This QA Inspector observed that Mr. Merino found no rejectable indications and the work appeared to be in general conformance with the contract specifications.

Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report. No issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

Summary of Conversations:

The were no pertinent conversations to report.



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.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer