

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-026717**Date Inspected:** 14-Nov-2011**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:** Jobsite

CWI Name:	As noted below		
Inspected CWI report:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A

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

- 12W/13W/C2 Repair (Interior/Exterior)
- 14W/PP128/W4 Lifting Lug Holes W3 and W4 (Interior)
- 14W/PP128/W3 Lifting Lug Holes W3 and W4 (Interior)

- 12W/13W/C2 Repair (Interior/Exterior)

This QA Inspector randomly observed ABF welder Fred Kaddu performing the back-gouge operation of an ultrasonic indication on the OBG side plate C2 section 12W/13W located at "Y" location 400 mm. The excavated area for repair was: (145 mm length; 20 mm wide; and 10 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 (4G) overhead position on OBG side plate section 12W/13W at weld location C2. The excavated area was as noted above and this QA Inspector observed QC Inspector Pat Swain verify that the pre-heat temperature was at the minimum of 150 degrees F and that the welding parameters (Amps) were in accordance with ABF WPS D1.5 – 1001 Repair Revision 0. The work observed at this location appeared to be in general compliance with the approved WPS and the contract specifications.

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This QA Inspector randomly observed ABF welder Fred Kaddu performing the back gouge operation of ultrasonic rejectable indications on the interior of the OBG side plate C1.2 section 12/W13W located at “Y” location 320 mm. (85 mm length; 25 mm wide; and 10 mm in depth), “Y” location 1340 mm. (85 mm length; 22 mm wide; and 16 mm in depth), “Y” location 320 mm. (85 mm length; 25 mm wide; and 10 mm in depth). Weld section C2: “Y” location 950 mm. (105 mm length; 20 mm wide; and 10 mm in depth), “Y” location 1155 mm. (100 mm length; 22 mm wide; and 11 mm in depth), “Y” location 1755 mm. (110 mm length; 25 mm wide; and 10 mm in depth), “Y” location 3355 mm. (100 mm length; 25 mm wide; and 17 mm in depth).

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).

2. 14W/PP128/W4 Lifting Lug Holes W3 and W4 (Interior)

This QA Inspector randomly observed ABF welder Jorge Lopez performing the back-gouge operation on face B of lifting lug hole 14W/PP128/W4/W3 on the interior of the OBG. This inspector observed QC Inspector Jesse Cayabyab test the back-gouge utilizing the Magnetic Particle (MT) method and this QA Inspector verified that no rejectable indications were present.

This QA Inspector randomly observed ABF welder Jorge Lopez (Welder ID 6149) performing the Shielded Metal Arc Welding (SMAW) process in the (4G) overhead position on “A” deck lifting lug hole 14W/PP128/W4/W3. This QA Inspector observed QC Inspector Jesse Cayabyab verify that the pre-heat temperature was at a minimum of 10 degrees C and that the welding parameters (Amps=270) were in accordance with ABF-WPS-D1.5-1110A-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 compliance with the contract specifications.

14W/PP128/W4/W4 (Interior)

This QA Inspector observed at random intervals the in-process welding of lifting lug hole 14W/PP128/W4/W4 in the interior of the OBG. ABF welder Jorge Lopez utilized the SMAW process in the (4G) overhead position with 4.0 mm E7018-H4R electrodes at 270 Amperes. This QA Inspector observed QC Inspector Jesse Cayabyab monitor the welding and that the parameters were in compliance with the above named WPS This QA Inspector noted that the work was in progress and appeared to be in general conformance with the contract documents.

3. 14W/PP128/W3 Lifting Lug Holes W3 and W4 (Interior)

This QA Inspector observed ABF welder mike Jimenez (ID 4671) pre-heat the joint to 10 degrees C prior to performing SMAW in the (4G) overhead position on lifting lug hole 14W/PP128/W3/W3. This QA Inspector observed the QC Inspector monitor the inter-pass temperatures and the welding to ensure the parameters were in compliance pertaining to ABF-WPS-D1.5-1110A-Revision 1. The parameters were recorded as (Amperes=194) utilizing a 4.8 mm E7018-H4R 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 conformance

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with the contract specifications.

14W/PP128/W3/W4

This QA Inspector randomly observed ABF welder Mike Jimenez performing the SMAW process in the (4G) overhead position on "A" deck lifting lug hole 14W/PP128/W3/W4. This QA Inspector observed QC Inspector Jesse Cayabyab verify that the pre-heat temperature was at the minimum of 10 degrees C and that the welding parameters (Amps=270) were in accordance with ABF-WPS-D1.5-1110A-Revision 1. 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 compliance 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