

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-026844
Date Inspected: 09-Dec-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: 1530
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:

- 11W/PP104/W3 Lifting Lug Hole W1 (Exterior)
- 14W/PP125/W4 Lifting Lug Hole W1 (Exterior)
- 13W/14W/ "F" Repair (Exterior)

- 11W/PP104/W3 Lifting Lug Hole W1 (Exterior)

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 on "A" deck lifting lug hole 11W/PP104/W3/W1. 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=194). This QA Inspector observed the use of 4.8mm E7018-H4R electrodes that were collected from the storage oven. This QA Inspector observed QC Inspector Sal Merino monitor the welding to ensure compliance 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 approved WPS and the contract specifications.

11W/PP104/W3 Lifting Lug Hole W3 (Exterior)

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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 lifting lug hole 11W/PP104/W3/W3. 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 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. 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 approved WPS and 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).

2. 14W/PP125/W4 Lifting Lug Hole W1 (Exterior)

This QA Inspector observed the welder grind and blend the edges of the hole utilizing a small disc grinder and installed the 20 mm plate to make up the B-U4a joint. This QA Inspector observed QC Inspector Sal Merino measure the planar offset to be within 1 mm and this QA Inspector found it to be acceptable. This QA Inspector made random observations of ABF welding personnel Salvador Sandoval (ID#2202) perform the Shielded Metal Arc Welding process (SMAW) in the (1G) flat position on Lifting Lug Hole (LLH) 14W/PP125/W4/W1. This QA Inspector observed QC Inspector Sal Merino measure the pre-heat temperature to verify a minimum of 150°F was achieved. This QA Inspector also observed the QC Inspector monitoring the welding and verifying that the parameters were in compliance pertaining to ABF-WPS-D15-1050A-CU. The parameters were recorded as (Amperes=195) utilizing a 4.0 mm E7018-H4R electrode. During in process welding, this QA Inspector noted that 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 on the exterior side of LLH W1 was completed on this date and appeared to be in general conformance with the contract documents.

3. 13W/14W/ "F" Repair (Exterior)

This QA Inspector randomly observed ABF welder Fred Kaddu performing the back-gouge operation of ultrasonic rejectable indications on "F" Edge Plate at 13W/14W located at "Y" 1465 mm: (30 mm wide; 260 mm length; and 11 mm in depth). This QA Inspector observed QC Inspector Fred Von Hoff perform a Magnetic Particle Inspection (MT) of the excavation to determine the soundness of the metal. Upon completion of the testing this QA Inspector verified that no rejectable indications were present.

This QA Inspector randomly observed ABF welder Fred Kaddu performing the repair welding operation of rejectable ultrasonic indications as per the Shielded Metal Arc Welding (SMAW) process in the (3G) vertical position on edge plate "F" 13W/14W. This QA Inspector observed the use of E7018-H4R electrodes and QC Inspector Fred Von Hoff verify that the preheat temperature was at the minimum of 150 degrees F and that the welding parameters (Amps=135) were in accordance with WPS D1.5-1000- Repair Revision 1. The welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications. This QA Inspector made subsequent observations throughout the shift and noted that the work was in progress and appeared to be in general conformance with the contract specifications.

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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
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Reviewed By:	Levell,Bill	QA Reviewer
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