

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-027081
Date Inspected: 17-Jan-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

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:

13E/PP118.5/E3 Lifting Lug Holes W3 and W4 (Exterior)

This QA Inspector observed ABF welder Salvador Sandoval (ID 2202) utilize a propane burner to heat "A" deck lifting lug holes W3 and W4 at 13E/PP118.5/E3 to 93.3° C. This QA Inspector observed QC Inspector Fred Von Hoff employ a 200° F Tempilstik and approve placement of the 20mm insert to make up the B-U4a Complete Joint Penetration (CJP) joint. Mr. Von Hoff measured the planar offset with a Bridge Cam gauge and verified the fit-up as acceptable. The welder applied heat to the joint to achieve 93.3° C and this QA Inspector observed the welder secure E7018-H4R electrodes from a baking oven. The welder performed the Shielded Metal Arc Welding (SMAW) process in the 1G flat position as the QC Inspector measured the amperage of the 3.2mm electrodes for the root pass as 125. This QA Inspector made subsequent observations throughout the process and noted the utilization of 4.0mm and 4.8mm electrodes with amperages of 185 and 280 respectively. This QA Inspector noted the welder grinding and blending the start/stop edges of the welds for a smooth transition as the QC Inspector measured the inter-pass temperatures. The parameters at this location appeared to be in general conformance with ABF-WPS-D1.5-1050A-CU.

13E/PP119.5/E4 Lifting lug hole W4 (Exterior)

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This QA Inspector made random observations of ABF welder Jorge Lopez (ID 6149) perform the SMAW in the 1G flat position on lifting lug hole W4 at 13E/PP119.5/E4. This QA Inspector observed QC Inspector Fred Von Hoff measure the pre-heat temperature to verify a minimum of 93.3°C 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=230) 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 to maintain a heat range below 230°C. This QA Inspector made subsequent observations during the shift and noted that the work was completed on this date and appeared to be in general conformance to the contract specifications.

12E/13E/A2 (Interior)

This QA Inspector randomly observed ABF welding operator James Zhen (ID 6001) performing the Flux Core Arc Welding with gas (FCAW-G) process utilizing a “Bug-O” motorized rail system with a magnetic base attached in the (4G) overhead position on the underside of deck plate “A2”, at 12W/13W of the OBG. This QA Inspector observed QC Inspector Fred Von Hoff monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-3110-4. The parameters were recorded as (A=270/V=24.6/TS=190/HI=2.09). 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 to the contract requirements.

Tower 53M Façade at South/West Shafts

This QA Inspector randomly observed ABF welder Eric Sparks (ID 3040) perform SMAW on 13mm plate (mechanical equipment pads) to the façade at the 53 m elevation between the south and the west shafts of the tower. The welder was observed applying heat to the areas to be welded to a temperature of 50° C. This QA Inspector observed QC Inspector Steve Jensen monitor the welding and the parameters for adherence to ABF-WPS-D1.5-F1200A. The welder was observed utilizing 4.0 E7018-H4R electrodes with amperage of 210. This QA Inspector noted that the work was in progress and appeared to be in general conformance with the contract specifications.

Temporary Attachments CB19 PP125/126 (Exterior)

This QA Inspector performed a Magnetic Particle (MT) Inspection of the temporary attachment sites located at CB19 PP125/126 south of W6 as pertaining to Weld Repair Report No: 201201-001. 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. CB19 PP 125/126 south of W6 is designated Seismic Performance Critical Members (SPCM).

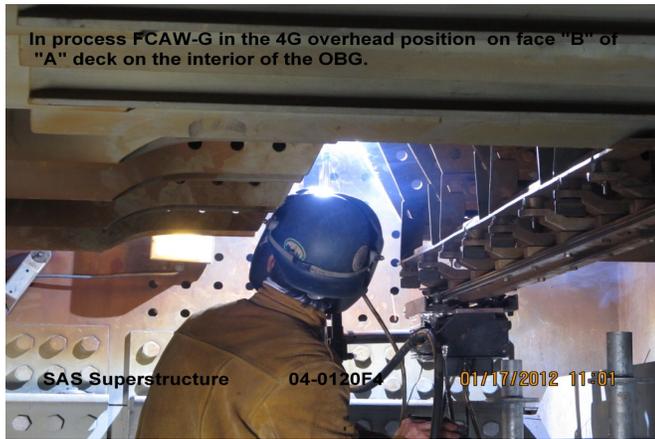
Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report. The issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

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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
