

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-027150
Date Inspected: 06-Feb-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/14E-A3 (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 "A3", at 13E/14E 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=240/V=23.7/TS=190/HI=1.79). 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 to the contract requirements. This joint is a Seismic Performance Critical Member (SPCM).

13E PP119.5 E4 Lifting Lug Holes #1-4 Repair (Exterior)

This QA Inspector randomly observed ABF welder Rick Clayborn (Welder ID 2773) performing the repair welding operation of five (5) ultrasonic indications as per the SMAW process in the (1G) flat position on "A" deck Lifting Lug Holes #1-4 at 13E PP119.5 E4. 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 66 degrees C and that

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

the welding parameters (Amps=135) were in accordance with WPS D1.5-1004- Repair. The welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications. Upon completion of the repair, a thermal induction blanket was placed over the area for Post Weld Heat Treatment (PWHT) at 450 degrees F for 1 hour. These joints are Seismic Performance Critical Members (SPCM).

13E PP121.5 E4 Lifting Lug Hole #3 (Exterior)

ABF welder Salvador Sandoval was observed utilizing a propane burner to pre-heat lifting lug hole #3 located at 13E PP121.5 E4 prior to performing SMAW in the 1G flat position. This QA Inspector noted that Mr. Sandoval obtained 3.2mm E7018 electrodes from a baking oven and drew amperage of 128 during welding. QC Inspector Fred Von Hoff monitored the welding and the parameters to ensure compliance pertaining to ABF-WPS-D15-1050A-CU and the contract specifications. This QA Inspector observed the welder employed a small disc grinder to blend the start/stop edges of the work as the QC Inspector measured the inter-pass temperatures. This QA Inspector made subsequent observations and noted that the work at this location was completed on this date and appeared to be in general conformance with the contract specifications. The joints at this location are Seismic Performance Critical Members (SPCM).

QA NDT (Exterior)

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10% of the welds at the locations listed below. 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.

12E PP115 E4 Lifting Lug Holes #1-4
12E PP115 E3 Lifting Lug Holes #1-4
12E/13E-A5 10% of 3500mm-5280mm

This QA Inspector performed a Magnetic Particle (MT) Inspection at the locations listed above. 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.

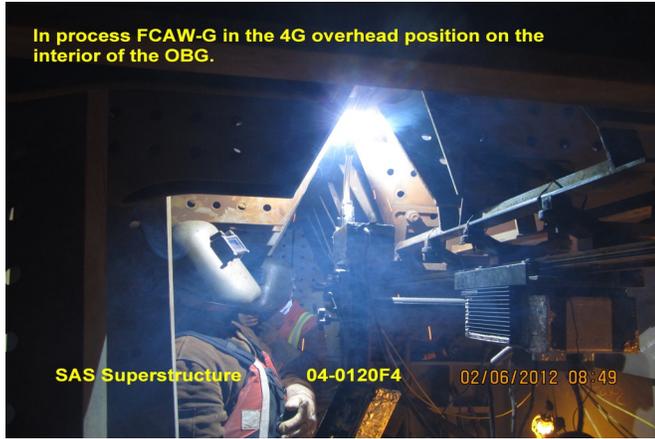
Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report. No issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

Summary of Conversations:

The were no pertinent conversations to report.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



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