

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-027172
Date Inspected: 13-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 PP118.5 E4 Lifting Lug Hole #4 (Exterior)

This QA Inspector observed ABF welder Salvador Sandoval (ID 2202) pre-heat the joint to 66 degrees C prior to performing Shielded Metal Arc Welding (SMAW) in the (1G) flat position on lifting lug hole #4 at 13E PP118.5 E4 on the exterior of the OBG. 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-D1.5-1050A-CU. The parameters were recorded as (Amperes=127) utilizing a 3.2 mm E7018-H4R electrode. The welder was observed grinding and blending the start/stop edges of the work between passes and throughout the joints depth. 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 with the contract specifications. This joint is a Seismic Performance Critical Member (SPCM).

13E/14E-A4 FCAW-G (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 "A4", at 13E/14E of the OBG. This QA

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

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=235/V=23.5/TS=190/HI=1.74). 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.

QC NDT (Exterior)

This QA Inspector randomly observed ABF Quality Control Inspector Mr. John Pagliero performing Ultrasonic Testing (UT) inspection on "A4" at 12E/13E on the exterior of the OBG. This QA Inspector observed that Mr. Pagliero detected no rejectable ultrasonic indications. The weld area scanned was from 1360mm-3450mm and was 20mm thick.

QA NDT (Exterior)

This QA Inspector performed a Magnetic Particle (MT) Inspection at 12E/13E-A4 on the exterior of the OBG. 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.

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10% of the welds at 12E/13E-A4 located from 1360mm to 3450mm on the exterior of the OBG. 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.

13E PP118.5 E4 Lifting Lug Hole #3 (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 Fred Von Hoff 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) performing the Shielded Metal Arc Welding process (SMAW) in the (1G) flat position on Lifting Lug Hole (LLH) #3 at 13E/PP118.5/E4. This QA Inspector observed the QC Inspector 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=128) utilizing a 3.2 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 #3 was completed on this date and appeared to be in general conformance with the contract documents. This joint is a seismic Performance Critical Member.

Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this

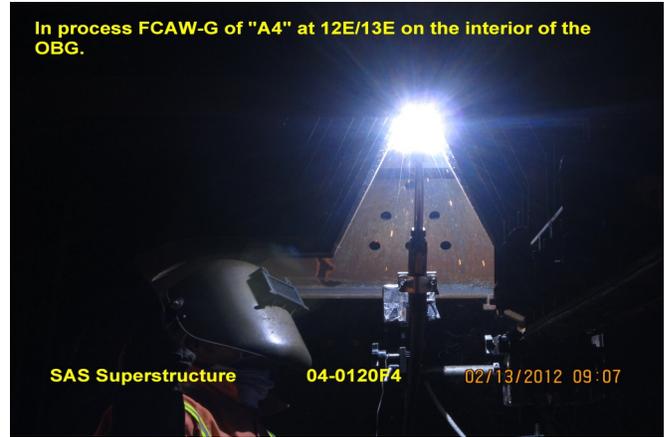
WELDING INSPECTION REPORT

(Continued Page 3 of 3)

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