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 #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-026980
Date Inspected: 30-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: 1630
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:

1. 11E/PP103/E3/W3 Lifting Lug Hole Repair (Exterior)
2. 12W/PP111/W3 Lifting Lug Hole Welding (Exterior)

1. 11E/PP103/E3/W3 Lifting Lug Hole Repair (Exterior)

This QA Inspector randomly observed ABF welder Salvador Sandoval performing the back-gouge operation of ultrasonic rejectable indications on “A” deck Lifting Lug Hole 11E/PP103/E3/W3 located at "Y" 160 mm: (20 mm wide; 120 mm length; and 10 mm in depth) “Y” 314 mm: (20 mm wide; 340 mm length; and 10 mm in depth). This QA Inspector observed QC Inspector Sal Merino 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 Salvador Sandoval (Welder ID 2202) performing the repair welding operation of two (2) ultrasonic indications as per the Shielded Metal Arc Welding (SMAW) process in the (1G) flat position on “A” deck Lifting Lug Hole 11E/PP103/E3/W3. This QA Inspector observed the use of E7018-H4R electrodes and QC Inspector Sal Merino verify that the preheat temperature was at the minimum of 10 degrees C and that the welding parameters (Amps=135) were in accordance with WPS D1.

5–1001- Repair. The welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications.

11E/PP103/E3/W1 Lifting Lug Hole Repair (Exterior)

This QA inspector randomly observed ABF welder Salvador Sandoval back-gouging lifting lug hole 11E/PP103/E3/W1 as part of the repair operations of ultrasonic rejectable indications located at “Y” 80 mm: (20 mm wide; 70 mm length; and 10 mm in depth), “Y” 175 mm: (20 mm wide; 130 mm length; and 10 mm in depth), “Y” 315 mm: (25 mm wide; 90 mm length; and 10 mm in depth), “Y” 515 mm: (20 mm wide; 70 mm length; and 7 mm in depth).This QA Inspector observed QC Inspector Sal Merino 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 Salvador Sandoval (ID 2202) performing the repair welding operation of an excavation as per the Shielded Metal Arc Welding (SMAW) process in the (1G) flat position on “A” deck Vent Hole at the above named location. This QA Inspector observed the use of E7018-H4R electrodes and QC Inspector Sal Merino verify that the preheat temperature was at the minimum of 10 degrees C and that the welding parameters were in accordance with WPS D1.5–1001- Repair.

QA UT Inspection

This QA Inspector performed Ultrasonic Testing (UT) on two (2) 14 mm lifting lug hole plates on weld section W3 and W4 at 11W/PP100/W3. This QA Inspector utilized a G.E. USN 60 and performed the testing using a 70 degree shear-wave transducer from both sides of the weld joint. The techniques utilized for scanning to determine a defect and sizing (length) were performed to comply with the contract documents. 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.

QA MT Inspection

This QA Inspector performed a magnetic particle inspection (MT) of the completed weld area on “A” Deck weld sections listed below on the exterior of the OBG. This QA Inspector observed that no rejectable indications were present and the work appeared to be in general conformance with the contract specifications.

A2 y + 4250 mm’s -5500 mm’s MT ok
A3 y + 0 mm’s – 1500 mm’s MT ok
A5 y + 3500 mm’s – 5500 mm’s MT ok

2. 12W/PP111/W3 Lifting Lug Hole Welding (Exterior)

This QA Inspector at random intervals observed the ongoing in process SMAW of lifting lug hole W4 by ABF welder Todd Jackson. This QA Inspector observed the welder in the (1G) flat position utilizing 3.4 mm E7018 electrodes with amperage of 115. This QA Inspector observed QC Inspector Sal Merino monitoring the welding

and parameters. This QA Inspector noted that the work was completed on this date and the welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications.

Splice Survey

This QA Inspector performed a planar offset survey of the eastbound OBG plate splices 12E/13E/E1 and E2, 13E/14E/E1 and E2 as directed by QA Lead Inspector, Daniel Reyes.

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.

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