

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-028065
Date Inspected: 24-Jul-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:	William Sherwood	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:	OBG	

Summary of Items Observed:

13W/14W OBG Drop-In

At the start of the shift this Quality Assurance Inspector (QA) traveled to the SAS project site and observed the work and the inspection performed by American Bridge/Fluor Enterprises (AB/F) welding and Quality Control (QC) personnel. The observations and inspections were performed as noted below:

This QAI observed Rick Clayborn (2773) excavating weld 13W-W2.1 utilizing a Carbon Arc Gouging. During gouging operations a 250F preheat was maintained using induction heating blankets. At the conclusion of gouging the joint was ground to a U-Joint profile that exhibited a bright clean shiny metal condition.

After Grinding, QAI witnessed William Sherwood Quality Control Technician perform Magnetic Particle Testing to the above listed excavation of weld 13W-120.6 LS-1, LS-2. Mr. Sherwood performed testing at a frequency of 100%. No indications were noted.

This QAI observed Rick Clayborn welding the above listed repair excavations utilizing the Shield Metal Arc Welding to the parameters set forth in the approved Welding Procedure Specification using E7018 consumable electrode. During welding operations a 350F preheat was maintained using induction heating blankets. At the conclusion of welding operations post heat was initiated utilizing induction heating blankets at 450F for four hours. First time repairs no RWR required.

This QAI observed Welder Xiao Juan Wan (ID#9677) using a rosebud torch to preheat Stiffener 120.6 LS-1, and

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LS-2 to a QC recorded, QA verified temperature of 250F. Preheat temperature was measured using a Tempil Stick. This QAI noted QC Tony Sherwood recording preheat temperature whenever there was a stop in work.

This QAI observed Xiao Juan Wan (ID#9677) making the following weld repairs to Stiffener 120.6 LS-1 LS-2:

Indication # Y D W L

- 1 130mm 15mm 30mm 50mm
- 2 135mm 15mm 30mm 50mm
- 3 20mm 22mm 23mm 70mm
- 4 110mm 22mm 20mm 110mm

Mr. Wan was using the Shield Metal Arc Welding process to deposit E9018 consumable electrode to the parameters set forth by the approved Welding Procedure Specification. This QAI observed the welder Mr. Wan using good workmanship practices cleaning between weld passes.

This QAI performed a visual inspection on the weld access holes of the floor beams of the 13W/14W OBG Drop-In. Due to spatter, misalignment, and cutting past the point of tangency numerous weld access holes do not comply with the requirements of American Welding Society D1.5 Bridge Welding Code 2002 Edition. The issue was brought to the attention of the contractors Quality Control for disposition.

Summary of Conversations:

There were general conversations with Quality Control Inspector William Sherwood, at the start of the shift regarding the location of welding, inspection personnel scheduled for this shift. All observations were relayed to Bill Levell.

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:	Daggett, Matt	Quality Assurance Inspector
Reviewed By:	Levell, Bill	QA Reviewer
