DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
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-026290
Date Inspected: 15-Sep-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: 1530
Location: Job Site

CWI Name: Steve McConnell

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☐ No	☑ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG Sections

Summary of Items Observed:

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor American Bridge/Fluor (ABF) welding operations. This Quality Assurance (QA) Inspector, Craig Hager observed the following.

Self Anchored Suspension (SAS) Tower, Electro Slag Welding (ESW):

ESW weld location N-face B: This QA Inspector observed ABF welding personnel Jeremy Dolman (# 5042) appeared to have completed grinding at the 3-meter to 9-meter elevation. This QA Inspector also observed it appeared QC personnel had completed the Magnetic Particle Testing (MT) of shallow excavations to verify removal. This QA Inspector performed a visual verification of the excavations and did not observe any with a depth greater than approximately 10 mm. This QA Inspector observed ABF welding personnel Jeremy Dolman (# 5042) use a gas torch to preheat an area prior to welding and use a temperature indicating marker to verify the preheat temperature was greater than 300°F. This QA Inspector observed QC Inspector John Pagliero verify the following welding parameters; 115 amperes. This QA observed a 3.2 mm diameter E7018H4R electrode was being used. The welding observed this date appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-1002 Repair.

ESW weld location M -face A: This QA Inspector randomly observed ABF personnel Alex Blanco using the carbon arc process to remove the temporary welds which held the strong backs for the ESW process.

ESW weld location B -face B: This QA Inspector observed multiple excavations which were side by side, basically having the same Y location but different X locations, that had been marked by QC personnel as having the excavations tested by MT and being free of any defects. This QA Inspector observed ABF welding personnel Richard Garcia (# 5892) using a grinder to contour the excavations in preparation for welding. This QA Inspector observed QC personnel John Pagliero and Steve McConnell were present and asked them if the excavations were going to be re-inspected using the MT method after this grinding was performed in case additional indications were uncovered. This QA Inspector was informed a MT inspection would not be performed prior to welding, but that the excavations would be measured and the specific Y and X locations of each excavation would be documented.

ESW weld location S -face A: This QA Inspector observed ABF welding personnel Rory Hogan (# 3186) performing grinding at this location between the 9-meter and 13-meter elevation. This QA Inspector observed after the grinding appeared to be completed QC Inspector Steve McConnell perform a visual and MT on the weld at this location. QC Inspector Steve McConnell informed this QA Inspector he had completed and accepted the preliminary visual and MT inspection form the 9-meter to 13-meter elevation and that he had previously completed and accepted the preliminary visual and MT inspection form the 3-meter to 9-meter elevation the day before. QC Inspector Steve McConnell requested this QA Inspector perform a preliminary visual verification and MT of the weld excluding the sump area. This QA Inspector performed a preliminary visual verification and observed the sump area had not been completed and observed 2 areas (each approximately 20 mm in length and 3 mm deep) which required additional welding and 1 area approximately 150 mm in length which held magnetic particles. QC Inspector Steve McConnell was informed of the finding and that the area had been marked in soapstone. QC Inspector Steve McConnell stated he would look at the areas and have ABF welding personnel Rory Hogan (# 3186) make any necessary repairs. Later this date QC Inspector Steve McConnell stated he concurred with the findings and the areas had been repaired. This QA Inspector re-inspected the 3 areas and observed the work appeared to comply with the contract requirements. This QA Inspector accepted the preliminary visual verification and MT from Y-500 to approximately 500 mm from the full length of the weld.

This QA Inspector was requested by Lead QA Inspector Bill Levell to deliver various high strength fasteners to the Trans-Lab in Sacramento, CA this date for testing.

Summary of Conversations:

This QA Inspector had general conversations with American Bridge/Fluor (ABF) and Caltrans personnel during this shift. Except as described above and noted above there were no notable conversations.

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: Hager,Craig Quality Assurance Inspector

WELDING INSPECTION REPORT

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Reviewed By: Levell,Bill QA Reviewer