

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014677**Date Inspected:** 27-May-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** See 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:** Orthotropic Box Girders (OBG)**Summary of Items Observed:**

Quality Assurance inspector (QA) Michael Foerder was at the American Bridge/Flour (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. OBG Field Splice 4E/5E Face C (Outside) Repair
2. OBG Field Splice 1W/2W Face B (Outside)
3. OBG Field Splice 2W/3W Face B and C (Outside)
4. OBG Field Splice 2W/3W Face E (Outside)

Field Splice 3E/4E Face C (Outside) Repair

The QA inspector periodically observed KFM welding personnel Jordan Hazalaar performing grinding and blending at Y location designated as 195mm for weld C1. This work is being performed in order to complete the weld repair identified previously for this area and in order to facilitate ultrasonic testing (UT) by QC inspector Steve McConnell. The QA inspector observed QC inspector Steve McConnell perform the UT utilizing a 70 degree transducer and wedge for the shear wave examination as the lamination scan has been previously performed. No rejectable indications were noted by the QC inspector and the area was marked as acceptable directly adjacent on the steel.

Field Splice 1W/2W Face B (Outside)

The QA inspector periodically observed the in process Flux Cored Arc Welding (FCAW-G) being performed by ABF welding personnel Xiao Jin Wan in the vertical position. QC inspector Tony Sherwood was noted to be

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present in order to monitor the progress and ensure the welding was within the established Welding Procedure Specification (WPS) noted as ABF-WPS-D1.5-3040B-3. The preheat and interpass temperature was verified by the QC and QA inspector to be greater than 65° Celsius (C) and the parameters were verified to be 220 amps, 23.1 volts and a measured travel speed of 150mm/min. The work progressed throughout the shift, was not completed and appeared to be in general conformance with the contract documents.

Field Splice 2W/3W Face B and C (Outside)

The QA inspector periodically observed ABF welding personnel Rory Hogan performing grinding and blending of the temporary attachment locations. In addition, the welder is in the process of setting up and positioning equipment in order to perform the backgouging operation. QC inspector Jim Cunningham was noted to be present in order to monitor the progression of work and adherence to the contract documents. It was noted the QC inspector was performing informational magnetic particle testing with no rejectable indications noted by the QC inspector at the time of review. The QA inspector did not observe any backgouging operations at this location during the QA inspector's shift.

Field Splice 2W/3W Face E (Outside)

The QA inspector periodically observed the in process Flux Cored Arc Welding (FCAW-G) being performed in the 4G overhead position by ABF welding personnel Jeremy Dolan for the balance of the weld joint. QC inspector Jim Cunningham was noted to be present in order to monitor the progress and ensure the welding was within the established Welding Procedure Specification (WPS) noted as ABF-WPS-D1.5-3040A-4. The preheat and interpass temperature was verified by the QC and QA inspector to be greater than 65° Celsius (C) and the parameters were verified to be 233 amps, 23.4 volts and a measured travel speed of 153mm/min. The welder is in the process of placing the final cover pass at this time. The work was completed later in the shift with grinding and blending following and the work appeared to be in general compliance with the contract documents. A digital photo is included in the body of this report for general information.



Summary of Conversations:

As noted above in summary of items observed.

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 Mohammad Fatemi (916)813-3677, who represents the Office of Structural Materials for your project.

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Inspected By:	Foerder, Mike	Quality Assurance Inspector
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Reviewed By:	Levell, Bill	QA Reviewer
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