

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016860**Date Inspected:** 22-Sep-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**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:** SAS OBG**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance Inspector (QAI) Bert Madison was present at Yerba Buena Island in California between the times noted above for observations relative to the work being performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below.

- 1). OBG Field Splice 5W/6W Weld D2, Face B (FCAW-G)
- 2). OBG Field Welding of East Line Ventilation Access Hole Insert (SMAW)
- 3). OBG Field Welding of Upper Horizontal CW Lug Restoration at PP19
- 4). OBG Field Splice 6E/7E weld ID: A1, Face A (QC NDE)
- 5). OBG Field Splice 6E/7E weld ID: A4 and A5 Face A (R-1 UT Repairs)

- 1). OBG Field Splice 5W/6W Weld D2, Face B

The QAI periodically observed that AB/F approved welder Rory Hogan (ID 3186) was performing the in process welding of OBG Field Splice 5W/6W Weld D2, from Face B per the Flux Cored Arc Welding (FCAW-G) process in the 4G (overhead) position. QC Inspector Mike Johnson was periodically present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-3040A-4.

- 2). OBG Field Welding of East Line Ventilation Access Hole Insert

The QAI periodically observed the QC Inspector Tom Pasqualone performing Magnetic Particle Testing (MT) of the East Line Personnel Access Hole Restoration OBG Field Splice backing weld from the A face in the deck plate on the Crossbeam side between PP19 and PP20. The QAI observed that the performance and evaluation of the MT appeared to comply with the MT procedure identified as SE-MT-CT-D1.5-101 Rev. 4. The QAI periodically

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observed AB/F approved welder Wai Kitlai (ID 2953) performing root pass welding per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position. The QAI periodically observed QC Inspector Tom Pasqualone was periodically present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1030 rev.1. See photo below. The QAI observed that while attempting to perform root pass welding Mr. Wai Kitlai burned through the backing weld in two locations. The QAI later observed that ceramic backing had been placed beneath (on the interior) at the burn through locations. The QAI periodically observed that root pass was completed at the burn through locations and fill passes were in process for the duration of the QA Inspectors shift. The QA Inspectors observed that the work appeared to be in general compliance with contract documents.

3).OBG Field Welding of Upper Horizontal CW Lug Restoration at PP19

The QAI periodically observed AB/F approved welder Eric Sparks (ID 3040) performing CJP welding per the Shielded Metal Arc Welding (SMAW) process in the 4G (overhead) position to restore a portion of the counter weight assembly upper lug at the edge plate at PP19 at W1. QC Inspector Mike Johnson was periodically present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1000. The QAI observed that the work appeared to be in general compliance with contract documents.

4). OBG Field Splice 6E/7E weld ID: A1, Face A (QC NDE)

The QAI periodically observed QC Inspector Steve McConnel performing Ultrasonic Testing (UT) at weld A1. Mr. McConnel utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination of the splice weld. The QC technician performed the required longitudinal wave testing utilizing a 1" diameter transducer for base metal soundness and performed the required shear wave testing during the testing for weld soundness utilizing a .63 x .75 rectangular transducer. The work at this location was in process during this shift and the QAI observed that work appeared to be in general compliance with the contract documents. The QAI observed that Mr. McConnell had marked several indications of substantial length on the weld A1. See photo below. See Summary of Conversations below.

5). OBG Field Splice 6E/7E weld ID: A4 and A5 Face A (R-1 UT Repairs)

The QAI periodically observed AB/F approved welder Fred Kaddu (ID 2188) performing excavation by grinding of R-1 repair areas identified by QC. The QAI observed QC Inspector Tom Pasqualone performing MT of the R-1 repair excavations prior to the commencement of welding. The QAI observed that the performance and evaluation of the MT appeared to comply with the MT procedure identified as SE-MT-CT-D1.5-101 Rev. 4. The QAI periodically observed AB/F approved welder Fred Kaddu (ID 2188) performing repair welding of the excavated areas per the Shielded Metal Arc Welding (SMAW) process. QC Inspector Tom Pasqualone was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1000-Repair. The excavating and repair welding was in process and the work at this location appeared to be in general compliance with contract documents.

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Summary of Conversations:

From Item 6).

In conversation with QC Steve McConnell the QAI was informed that some of the indications being observed in A1 by the QC UT technician appeared to walk from the first leg into the second leg and appeared to have a considerable through wall dimension.

Other conversations on this date with Quality Control Inspectors were general in nature and pertained to locations of welding and QC activities.

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

Inspected By: Madison, Bert

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer