

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 #: 04-0120F4Cty: 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-027627**Date Inspected:** 19-May-2012**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:** Pier 7 Job Site**CWI Name:** listed 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:** S.A.S. Components**Summary of Items Observed:**

The Quality Assurance Inspector (QAI), Scott Croff, was present at the Self Anchored Span (SAS) job site to observe the scheduled fabrication and welding of components for the SFOBB project. The following observations were made:

- 1) Deck Closure Plates, East span - back welding
- 2) Deck Closure Plates, East span - NDT
- 3) Deck Closure Plates, East Span - Repairs

1) The QAI observed ABF personnel making overhead (4G) complete joint penetration (CJP) back welds at on the East bound Deck Closure Plates. The QAI noted that Salvador Sandoval, ID 2202, and Steven Davis, ID 7889, are using Shielded Metal Arc Welding (SMAW) with E7018 electrodes to back weld the 13E weld E2.8. Mr. Sandoval is welding by Panel Point (PP) 124 and Mr. Davis is welding by PP123. The QAI also noted that Eddie Brown, ID 9331, is SMAW 4G back welding at 13E/14E A1 and into the corner of weld 13E E2.2. The QAI noted that the Quality Control Inspector (QCI) Salvador Merino is monitoring this welding. The QAI made random observations of the welding in progress and verified that the preheat temperature, interpass temperature and welding parameters were conforming to the welding procedure specification (WPS) ABF-WPS-D15-1040C-CU. The QAI noted that these welds were in progress the duration of the shift. See the attached photo.

2) The QAI observed ABF personnel gouging the bottom of CJP welds where rejectable indications have been identified with Ultrasonic Testing (UT). The QAI observed 4 repair areas on 13E PP120.6. The QAI witnessed

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the QCI Salvador Merino conducting Magnetic Particle Testing (MT) on the gouged and clean excavations. The QAI noted that the excavation dimensions are as follows from Y=0: 9mm deep, 30mm long & 15mm wide; 4mm deep, 40mm long & 10mm wide; 11mm deep, 30mm long & 15mm wide; 4mm deep, 30mm long & 15mm wide. See the attached photos. The QAI was informed that there were no rejectable indications observed and repairs would commence. The QAI visually examined the excavations and noted that they appeared to be ready for repair welding. The QAI also observed QCI personnel Steve McConnell and Andrew Keach conducting UT on deck closure plate weld 13E PP122.2. This inspection was in progress until the end of the shift and the QAI noted that several rejectable indications have been identified by the QCI. The QAI witnessed the QCI Salvador Merino conducting MT on the back weld of 13E PP122.2. The QAI was informed that the MT was acceptable. The QAI witnessed the QCI Salvador Merino conducting MT on the top weld of 13E/14E, A1 (Y=4350-5500) and A2.1 (Y=0-1850). The QAI noted that several areas where temporary attachment welds have not been completely removed are marked out for additional grinding and inspection. This was not completed by the end of the shift. See the attached photo.

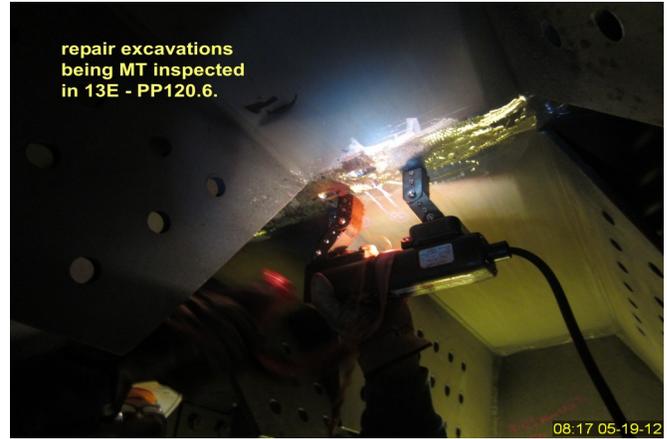
The QAI observed QCI Jesus Cayabyab conducting UT on Deck Access Hole (DAH) at PP109.5 E2. The QAI noted that first time repairs have been welded and are being inspected. The QAI was informed that the repairs were not successful and additional repairs will be needed. The QAI also observed QCI Steve Jensen conducting UT on DAH at PP46.5 E5. The QAI was informed that there have been 3 rejectable indications identified and these will be first time repairs. The QAI noted that none of these repairs were initiated during this shift.

3) The QAI observed ABF welder Khit Lounechaney, ID 4985, welding the repairs at 13E PP120.6, after the excavation MT was completed. The QAI noted that the weld and base metal was preheated using an induction heater from the top of the deck. The QAI noted that the QCI Salvador Merino is monitoring the repair welding. Upon completion of the welding, the QAI was informed that the weld was kept at 325F for one hour. The QAI was unable to verify this. The QAI noted that the welder has relocated and is performing back welding at 13E PP120.6 and being monitored by the QCI Salvador Merino. This work was in progress until the end of the shift.



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Summary of Conversations:

The QAI had general conversations with ABF and Caltrans personnel during this shift. The QAI relayed the general observations and status of work to the QAI Danny Reyes. Except as described above, there were no other notable conversations or observations.

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: Croff,Scott

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer