

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-018479**Date Inspected:** 03-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**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 7E/8E Weld ID: C2, Face B – (FCAW-G)
- 2). OBG Field Splice 4E/5E A Longitudinal Stiffener (LS) 5 & 6 (SMAW R-1 Repairs)
- 3). OBG Field Splice 7E/8E A Longitudinal Stiffener (LS) 5 (SMAW)
- 4). OBG Field Splice 6E/7E Weld ID: B1, Face B – (SMAW R-2 Repairs)
- 5). OBG East Line Access Penetration Insert Welds (SMAW)

- 1). OBG Field Splice 7E/8E Weld ID: C1, Face B – (FCAW-G)

The QAI periodically observed AB/F approved welder Rory Hogan (ID 3186) assisted by AB/F approved welder Jeremy Dolman (ID 5042) performing fill pass welding per the Flux Cored Arc Welding (FCAW-G) process in the 4G (overhead) position. The QAI periodically observed QC inspector Mike Johnson was present periodically 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-D1.5-3042B-1. The welding was in process at this location and the work appeared to be in general compliance with contract documents.

- 2). OBG Field Splice 4E/5E A Longitudinal Stiffener (LS) 5 & 4 (SMAW R-1 Repairs)

The QAI periodically observed AB/F approved welder Xiao Jian Wan (ID 9677) performing R-1 repair welding of fill and cover passes per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position of OBG Field Splice 4E/5E ALS-5 and ALS-4. See photo below. QC Inspector John Pagliero was present periodically to monitor the progress and verify that the welding parameters were within the limits established by the approved

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welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1002 Repair. The QAI observed that there were (2) UT rejectable areas on ALS-4, one on the North face and one on the South Face and (1) one UT rejectable area on ALS-5 on the North face. The repair welding was completed at ALS-5 and in process at the ALS-4 South face repair. The QAI observed that the excavated areas had the following dimensions and the following Y locations:

ALS-5 - Indication reported at Y = 130mm

ALS-5 – Excavation: Y = 80mm, Length = 120mm, Depth = 20mm and Width = 30mm.

ALS-4 – North face Indication reported at Y = 140mm

ALS-4 – North face Excavation not completed on this date.

ALS-4 – South face Indication reported at Y = 145mm

ALS-4 –Excavation: Y = 95mm, Length = 130mm, Depth = 20mm and Width = 25mm.

The QAI observed that the work at this location appeared to be in general compliance with contract documents.

3). OBG Field Splice 7E/8E A Longitudinal Stiffener (LS) 5 (SMAW)

The QAI periodically observed AB/F approved welder Hua Qiang Hwang (ID 2930) performing back welding of fill and cover passes per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position. QC Inspector John Pagliero 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-D1.5-1012-3. The QAI later observed welder 2930 performing flush grinding of the back welded cover passes at OBG Field Splice 6E/7E ALS-5. The welding was completed at this location and appeared to be in general compliance with contract documents.

4). OBG Field Splice 6E/7E Weld ID: B1, Face B – (SMAW R-2 Repairs)

The QAI periodically observed AB/F approved welder Jorge Lopez (ID 6149) performing welding per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position of one (2) of four (4) repair excavations on the exterior of the OBG. QC Inspector Jesse Cayabyab was present periodically 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 QAI observed that welding of fill and cover passes was completed at excavations #1 & #2 during the shift and work at this location appeared to be in general compliance with contract documents. The QAI observed that the (2) two excavations completed on this date were located at the following Y locations:

Excavation #1 at Y = 275mm and Excavation #2 at Y = 810mm.

5). OBG East Line Access Penetration Insert Welds (SMAW)

OBG East Line Access Penetration Insert Weld at 7E PP61.5 E2 SW (Exterior and Interior)

The QAI periodically observed AB/F approved welder Wai Kitlai (ID 2953) performing root and fill pass welding per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position on the exterior of OBG East Line Access Penetration Insert Weld 7E PP61.5 E2 SW. See photo below. QC Inspector Steve McConnel 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-D1.5-1010 rev 1. The QAI observed that welding of fill passes was halted in process and welder 2953 moved to the interior to perform back grinding to prepare for back welding. The QAI observed the work at this location appeared to be in general compliance with contract documents.

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OBG East Line Access Penetration Insert Weld at 6E PP46.5 E2 S (Interior)

The QAI periodically observed AB/F approved welder Wen Han Yu (ID 6317) performing back welding per the Shielded Metal Arc Welding (SMAW) process in the 4G (overhead) position on the interior of OBG East Line Access Penetration Insert Weld 6E PP46.5 E2 S. QC Inspector John Pagliero 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-D1.5-1010 rev 1. The QAI observed that back welding was in process and work at this location appeared to be in general compliance with contract documents.



Summary of Conversations:

Conversations on this date with Quality Control Inspectors were general in nature and pertained to locations of welding and QC activities and locations of welds released to the QAI for verification testing.

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: Madison, Bert

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer