

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016151**Date Inspected:** 09-Aug-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:** 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 1W/2W Weld ID: D1 & D2, Face A
- 2). OBG Field Splice 2W/3W Weld ID: D2, Face A
- 3). OBG Field Splice 3W/4W Weld ID: B1, Face B
- 4). OBG Field Splice 3W/4W Weld ID: D1 & D2, Face A
- 5). OBG Field Splice 3W/4W Weld ID: F1, Face A
- 6). OBG Field Splice 4W/5W Weld ID: C1, Face A
- 7). OBG Field Splice 5W/6W Weld ID: B1, Face B

- 1). OBG Field Splice 1W/2W Weld ID: D1 & D2, Face A

The QAI periodically observed the QC Inspector Tom Pasqualone together with AB/F approved welder Kenneth Chappell (3833) performing lay-out of Ultrasonic Testing (UT) repair cycle one (R-1) reject areas. Later in the shift the QAI periodically observed AB/F approved welders Fred Kaddu (ID 2188) and Kenneth Chappell performing excavating by grinding at the repair locations.

- 2). OBG Field Splice 2W/3W Weld ID: D2, Face A

The QAI periodically observed AB/F approved welder Kenneth Chappell performing the excavating by grinding of (1) one Ultrasonic Testing (UT) reject repair area. The excavation was completed at this location and the QAI observed QC Inspector Tony Sherwood performing Magnetic Particle Testing (MT) of the repair excavation. The

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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. No welding was observed at this location on this date. See Summary of Conversations.

3). OBG Field Splice 3W/4W Weld ID: B1, Face B

The QAI periodically observed AB/F approved welder Fred Kaddu (ID 2188) performing repair welding per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position of (1) one repair excavation at a Ultrasonic Testing (UT) reject area from the B face. The QC Inspector Steve McConnell 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. Work was completed at this location during the QA Inspectors shift and the QAI observed QC Inspector Tony Sherwood performing Visual Testing (VT) of the completed repair. The QC Inspector signed off the VT of the repair on the adjacent steel and the work appeared to be in general compliance with contract documents.

4). OBG Field Splice 3W/4W Weld ID: D1 & D2, Face A

The QAI periodically observed QC Inspector Tony Sherwood performing VT and MT of previously completed repair locations on OBG Field Splice 3W/4W Weld ID: D1 & D2, Face A. 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 QC Inspector Tony Sherwood indicated that the VT & MT were acceptable at the repair locations by signing off the QC grid on the steel. Work was completed at this location during the QA Inspectors shift and the work appeared to be in general compliance with contract documents.

5). OBG Field Splice 3W/4W Weld ID: F1, Face A

The QAI periodically observed SE QC Inspector Steve McConnell performing Ultrasonic Testing (UT) of (R-1) repairs from the A Face of OBG Field Splice 3W/4W Weld ID: F1. Mr. McConnell utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination of the CJP. The QC technician performed the shear wave testing utilizing a .63 x .75 rectangular transducer to test for weld soundness. The UT examination was completed during this shift. At the conclusion of the QC testing the QAI observed that the QC technician noted two (2) rejectable flaws which were marked on the A face of the groove weld.

6). OBG Field Splice 4W/5W Weld ID: C1, Face A

The QAI periodically observed AB/F approved welder Song Tao Huang (ID 3794) and Jin Quan Huang (ID 9340) setting up to perform Flux Cored Arc Welding (FCAW-G) from the A face of OBG Field Splice 4W/5W Weld ID: C1 in the 3G (vertical) position until approximately 0900 hrs. The QAI observed QC Inspector Tony Sherwood 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-D1.5-3042B-1. Mr. Sherwood was also observed checking the root opening and marking several areas for the AB/F personnel to grind in order to open the root gap. When welding commenced, the QC Inspector stated that the welding amperes were measured at 247 amps, the welding volts were 24.2 volts and the travel speed was measured to be 290 mm/min. The work at this location was in process for the duration of the QA Inspectors shift and appeared to be in general compliance with contract documents.

7). OBG Field Splice 5W/6W Weld ID: B1, Face B

The QAI periodically observed the in process air carbon arc gouging by approved AB/F welder Hua Qiang Hwang

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(2930) of the OBG Field Splice 5W/6W weld ID: B1 Face B to remove the backing bar and prepare a groove for back welding. Work at this location was in process for the duration of the QA Inspectors shift and appeared to be in general compliance with contract documents.



Summary of Conversations:

From item 2).

The QC technician Tony Sherwood in a conversation with the QAI stated that even though there were repair excavations at OBG Field Splice 2W/3W, the ongoing work by AB/F personnel pertaining to UT repairs on the West Line would be concentrated on clearing UT indications at OBG Field Splice 1W/2W Weld ID: D1 & D2.

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