

**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-016439**Date Inspected:** 24-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). PP13 ABF-SUB-001503R00 (Westbound)
- 2). OBG Field Splice 4W/5W Weld ID: B1, Face A & B
- 3). OBG Field Splice 4W/5W Weld ID: F1, Face B
- 4). OBG Field Splice 4W/5W Weld ID: E1 & E2, Face B
- 5). OBG Field Splice 5W/6W Weld ID: B1 Face A & B
- 6). OBG Field Splice 5W/6W Weld ID: E1 & E2, Face A

The QAI periodically observed the QA Verification status board located in the QC Conex and no QA verification became available on this date during the QA Inspector's shift.

- 1). PP13 ABF-SUB-001503R00 (Westbound)

The QAI periodically observed QC Inspector Tom Pasqualone performing Ultrasonic Testing (UT) from the B Face of the Longitudinal Diaphragm insert splice. Prior to observing the testing the QAI observed QC Mr. Pasqualone performing the required calibration check of the GE USM 35 UT Instrument and the 70° Search Unit. The QAI observed Mr. Pasqualone perform a calibration check of the transducer index point, the transducer sound path angle, the horizontal sweep distance and the sensitivity. The calibration check appeared to be in compliance with contract documents and the QAI observed that Mr. Pasqualone set the reference level at 50% full screen height with a zero reference level sensitivity of 52dB. The QAI observed Mr. Pasqualone utilized the UT

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## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

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Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination of the splice weld. The QC technician performed the required shear wave testing during the testing for weld soundness utilizing a .63 x .75 rectangular transducer. The QAI observed that Mr. Pasqualone appeared to locate a rejectable indication in the horizontal splice. See photo below. The UT examination was not completed from face B during the QA Inspectors shift and the work at this location appeared to be in general compliance with contract documents.

### 2). OBG Field Splice 4W/5W Weld ID: B1 Face A & B

The QAI periodically observed AB/F personnel performing grinding of the A face of Weld ID: B1 to excavate (1) one Repair Cycle 1 (R-1) Ultrasonic Testing (UT) repair. The QAI observed QC Inspector Tom Pasqualone performing Magnetic Particle Testing (MT) of the excavated area prior to repair 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 then periodically observed AB/F approved welder Fred Kaddu (ID 2188) performing repair welding per the (SMAW) process in the 3G (vertical) position. 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. Later in the shift the QAI periodically observed AB/F approved welder Fred Kaddu (ID 2188) performing repair welding per the (SMAW) process in the 3G (vertical) position of (1) one (R-1) UT repair on the B Face. 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-D1.5-1000-Repair. The QAI observed the completion of repair welding of both A & B Faces at this location and observed that the work appeared to be in general compliance with contract documents.

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

The QAI periodically observed AB/F approved welder Fred Kaddu (ID 2188) performing welding to repair undercut as previously identified by QC. 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-D1.5-1000-Repair. The QAI observed that the work at this location was complete and appeared to be in general compliance with contract documents.

### 4). OBG Field Splice 4W/5W Weld ID: E1 & E2, Face B

The QAI periodically observed ABF personnel performing Plasma Cutting and grinding to prepare a groove for back welding. The work at this location was in process for the remainder of the QA Inspectors shift.

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

The QAI periodically observed AB/F personnel performing grinding of the B face of Weld ID: B1 to excavate (1) one Repair Cycle 1 (R-1) Ultrasonic Testing (UT) repair. The QAI observed QC Inspector Tony Sherwood performing Magnetic Particle Testing (MT) of the excavated areas prior to repair 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. Later in the shift the QAI periodically observed AB/F personnel performing grinding of the A face of Weld ID: B1 to excavate (2) two Repair Cycle 1 (R-1) UT repairs. The QAI observed QC Inspector Tom Pasqualone performing Magnetic Particle Testing (MT) of the excavated areas prior to repair 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.

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# WELDING INSPECTION REPORT

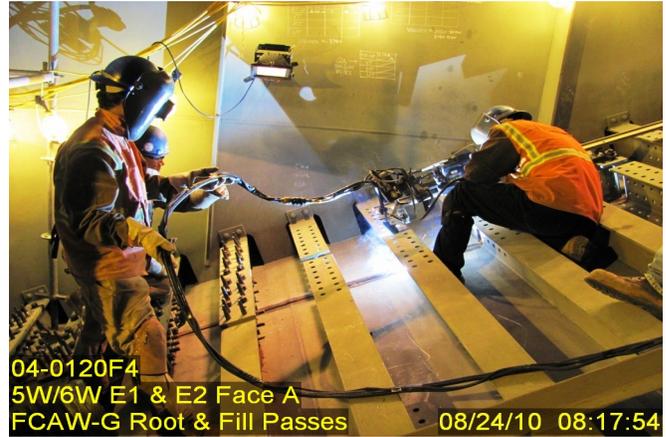
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6). OBG Field Splice 5W/6W Weld ID: E1 & E2, Face A

The QAI periodically observed AB/F approved welder Song Tao Huang (ID 3794) performing welding per the Flux Cored Arc Welding (FCAW-G) process in the 3G (vertical) position of root and fill passes on weld ID: E1 & E2. See photo below. 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. The QAI observed that the work at this location was in process for the duration of the shift and 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.

**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.

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**Inspected By:** Madison,Bert

Quality Assurance Inspector

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**Reviewed By:** Levell,Bill

QA Reviewer