

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-018911**Date Inspected:** 30-Dec-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 9E/10E Weld ID: D1 & D2, Face A (FCAW-G)
- 2). OBG Field Splice 8E/9E Weld ID: E2, Face A – (SMAW)
- 3). OBG Field Splice 7E/8E Weld ID: B1, Face B – (SMAW R-1 Repairs)
- 4). OBG Field Splice 8E/9E Longitudinal Stiffeners (QC UT)

- 1). OBG Field Splice 9E/10E Weld ID: D1 & D2, Face A (FCAW-G)

The QAI periodically observed AB/F approved welders Hua Qiang Hwang (ID 2930) and Xiao Jian Wan (ID 9677) performing welding of the continuous tack welds on weld ID: D1 & D2. per the Flux Cored Arc Welding (FCAW-G) process and the Shielded Metal Arc Welding (SMAW) process in the 2F (horizontal) position. The QAI observed QC Inspectors John Pagliero and Fred Von Hoff were present to monitor the progress and verify that the welding parameters were within the limits established by the approved Welding Procedure Specifications (WPS) identified as ABF-WPS-D1.5-F3200-2 and ABF-WPS-D1.5-F1200A. The QAI observed that welder 2930 was welding at weld D1 and welder 9677 was welding at weld D2. See photos below. The QAI observed that the work at this location was in process and appeared to be in general compliance with contract documents.

- 2). OBG Field Splice 8E/9E Weld ID: E2, Face A – (SMAW)

The QAI periodically observed AB/F approved welder Song Tao Huang (ID 3794) performing welding of fill and cover passes on the last 1000mm of OBG Field Splice 8E/9E Weld ID: E2. The welding was performed per the

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Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position. The QAI observed QC Inspector Fred Von Hoff 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-D1.5-1040A. The welding of cover passes was completed. The QAI observed that the work at this location appeared to be in general compliance with contract documents.

3). OBG Field Splice 7E/8E Weld ID: B1, Face B – (SMAW R-1 Repairs)

The QAI periodically observed AB/F approved welder Fred Kaddu (ID 2188) performing air carbon arc gouging and grinding on the interior surface of OBG Field Splice 7E/8E Weld ID: B1 to prepare R-1 Ultrasonic Testing (UT) reject areas for repair welding. The QAI randomly observed QC Inspector Jesse Cayabyab performing Magnetic Particle Testing (MT) of the excavated area prior to repair welding. 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 OBG Field Splice 8E/9E Weld B1. 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-D1.5-1001 Repair. The QAI observed that fill and cover pass welding of one excavation was in process on this date and work at this location appeared to be in general compliance with contract documents. The QAI observed that the excavated area in weld B1 had the following dimensions and the following Y locations:
Y = 150mm, Length = 350mm, Depth = 18mm and Width = 45mm.

4). OBG Field Splice 8E/9E A Longitudinal Stiffeners (QC UT)

The QAI periodically observed QC Inspector John Pagliero performing Ultrasonic Testing (UT) of OBG Field Splice 8E/9E Welds ALS 4, ALS 5 & ALS 6. Mr. Pagliero utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination of the double groove Complete Joint Penetration (CJP) welds. The QC technician performed the required shear wave testing for weld soundness utilizing a .63 x .75 rectangular transducer. The UT examination was completed and at the conclusion of the QC testing the QAI observed that the QC technician accepted the three (3) ALS welds at this location.



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.

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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
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Reviewed By:	Mertz,Robert	QA Reviewer
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