

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019171**Date Inspected:** 06-Jan-2011**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 Welding of East Line Lifting Lug Hole Inserts (SMAW)
- 2). OBG East Line Access Hole Insert Weld at 5E PP29.5 E2 (SMAW R-1 Repairs)
- 3). OBG Field Splice 7E/8E Weld ID: F1, Face A – (SMAW R-2 Repairs)
- 4). Longitudinal Stiffener (ALS) Splices at OBG Field Splice 9E/10E (SMAW)
- 5). OBG Field Splice 8E/9E Weld ID: C1 & C2, Face B – (Plasma Cutting)

- 1). OBG Field Welding of East Line Lifting Lug Hole Inserts (SMAW)

Exterior: OBG 5E- PP31-E4-weld 2- (SMAW)

The QAI periodically observed AB/F approved welder Salvador Sandoval (ID 2202) performing fill and cover pass welding at E4 weld 2 per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position. 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. 5-1070. Fill and cover pass welding was complete and the QAI observed that the work at this location appeared to be in general compliance with contract documents.

Exterior: OBG 5E- PP35-E4-weld 3- (SMAW)

The QAI periodically observed AB/F approved welder Salvador Sandoval (ID 2202) performing fit-up, root and fill pass welding at E4 weld 3 per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position. QC Inspector Steve McConnell was present to verify the fit-up, monitor the progress and verify that the welding

---

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

---

parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1070. The QAI also verified the fit-up at this location. Fill pass welding was in process and the QAI observed that the work at this location appeared to be in general compliance with contract documents.

### 2). OBG East Line Access Hole Insert Weld at 5E PP29.5 E2 (SMAW R-1 Repairs)

The QAI periodically observed AB/F approved welder Jin Pei Wang (ID 7299) performing R-1 repair 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 5E PP29.5 E2. QC Inspector Fred Von Hoff 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-D1.5-1001 Repair. Repair welding was complete and the QAI observed the work at this location appeared to be in general compliance with contract documents.

### 3). OBG Field Splice 7E/8E Weld ID: F1, Face B – (SMAW R-2 Repairs)

The QAI periodically observed AB/F approved welder Fred Kaddu (ID 2188) performing repair welding of two excavated areas per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position on the interior of OBG Field Splice 8E/9E Weld F1. The QAI randomly observed QC Inspector Fred Von Hoff performing Magnetic Particle Testing (MT) of the excavated areas prior to repair welding. The QAI randomly 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 randomly observed AB/F approved welder Fred Kaddu (ID 2188) performing repair welding of the two excavated areas. QC Inspector Fred Von Hoff was present periodically to monitor the progress and verify that the repair 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 fill and cover pass welding of the two excavations on the interior of 7E/8E weld F1 was completed during the QA Inspectors shift and the work at this location appeared to be in general compliance with contract documents. The QAI observed that the repair areas excavated on this date on the interior of weld F1 had the following dimensions and the following Y locations:

Y = 165mm, Length = 110mm, Depth = 11mm, Width = 25mm.

Y = 290mm, Length = 165mm, Depth = 11mm, Width = 25mm.

### 4). Longitudinal Stiffener (ALS) Splices at OBG Field Splice 9E/10E (SMAW)

#### ALS-2

The QAI periodically observed AB/F approved welder Hua Qiang Hwang (ID 2930) at OBG Field Splice 9E/10E ALS-2, performing welding of root, fill and cover passes per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position. See photo below. The welding at this location was from the North Face and was completed and then back grinding of the South face was completed. The QAI periodically observed AB/F approved welder Hua Qiang Hwang (ID 2930) performing back welding of root and fill passes. 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-D1.5-1012-3. The QAI observed that the work at this location was in process and appeared to be in general compliance with contract documents.

#### ALS-6

The QAI periodically observed AB/F approved welder Xiao Jian Wan (ID 9677) at OBG Field Splice 9E/10E ALS-6, performing welding of root, fill and cover passes per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position. See photo below. The welding at this location was first from the North Face and was

---

---

# WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---

---

completed and back grinding of the South face was in process. 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-D1.5-1012-3. The QAI observed that the work at this location appeared to be in general compliance with contract documents.

5). OBG Field Splice 8E/9E Weld ID: C1 & C2, Face B – (Plasma Cutting)

The QAI periodically observed AB/F approved welder Rory Hogan (ID 3186) assisted by AB/F approved welder Jeremy Dolman (ID 5042) performing Plasma Cutting to remove the backing bar and to prepare a groove for back welding. The work at this location was in process for the remainder of the QA Inspectors shift.



### 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.

---

<b>Inspected By:</b>	Madison,Bert	Quality Assurance Inspector
<b>Reviewed By:</b>	Levell,Bill	QA Reviewer

---