

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-020317**Date Inspected:** 04-Feb-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1630**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). Deck Access Hole (DAH) Insert Weld at OBG 4W PP24.5 W5 (SMAW Exterior R-1 Repairs)
- 2). Deck Access Hole (DAH) Insert Weld at OBG 3W PP23.5 W2 (SMAW Interior R-1 Repairs)
- 3). Deck Access Hole (DAH) Insert Weld at OBG 2W PP13.5 W5 (SMAW Interior R-1 Repairs)
- 4). Field Welding of Drip Edge Plate at 6W PP47 W1 (SMAW)
- 5). Field Welding of Lifting Lug Hole (LLH) Inserts (SMAW)
- 6). OBG East Line Lifting Lug Hole (LLH) Inserts (QA verification)

- 1). Deck Access Hole (DAH) Insert Weld at OBG 4W PP24.5 W5 (SMAW Exterior R-1 Repairs)

The QAI periodically observed AB/F approved welder Wai Kitlai (ID 2953) grinding to excavate and subsequently performing R-1 repair welding per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position on the exterior of the DAH Insert Weld at OBG 4W PP24.5 W5. QC Inspector Gary Ehrsam 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. Welding of three excavated areas was completed. The QAI observed the work at this location appeared to be in general compliance with contract documents. The QAI observed that the repair areas excavated had the following dimensions and the following Y locations:

#1 - Y = 0mm, Length = 190mm, Depth = 16mm, Width = 20mm.

#2 - Y = 465mm, Length = 115mm, Depth = 17mm, Width = 25mm.

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#3 - Y = 2835mm, Length = 100mm, Depth = 17mm, Width = 20mm.

2).Deck Access Hole (DAH) Insert Weld at OBG 3W PP23.5 W2 (SMAW Interior 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 the DAH Insert Weld at OBG 3W PP23.5 W2. 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-D1.5-1001 Repair. Welding of four repair areas was completed on the interior. The QAI observed the work at this location appeared to be in general compliance with contract documents. The QAI observed that the excavations had the following dimensions and the following Y locations:

#1 - Y = 5mm, Length = 50 , Depth = 7 mm, Width = 20 mm.

#2 - Y = 2060mm, Length = 100mm, Depth = 8mm, Width = 25mm.

#3 - Y = 2820mm, Length = 55mm, Depth = 7mm, Width = 25mm.

#4 - Y = 3285mm, Length = 100mm, Depth = 7mm, Width = 20mm.

#5 - Y = 3340mm, Length = 160mm, Depth = 7mm, Width = 20mm.

#6 - Y = 4220mm, Length = 40mm, Depth = 7mm, Width = 20mm.

3). Deck Access Hole (DAH) Insert Weld at OBG 2W PP13.5 W5 (SMAW Interior R-1 Repairs)

The QAI periodically observed AB/F approved welder Wen Han Yu (ID 6317) performing R-1 repair welding per the Shielded Metal Arc Welding (SMAW) process in the 4G (overhead) position on the interior of the DAH Insert Weld at OBG 2W PP13.5 W5. QC Inspector Gary Ehram 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. Work was in process and the QAI observed the work at this location appeared to be in general compliance with contract documents.

4). Field Welding of Drip Edge Plate at 6W PP47 W1 (SMAW)

The QAI periodically observed AB/F approved welder Darcel Jackson (ID 9967) performing fillet welding of a segment of drip edge plate at 6W PP47 W1 per the Shielded Metal Arc Welding (SMAW) process in the 2F (horizontal) & 4F (overhead) positions. See photo below. QC Inspector Steve Jensen was periodically 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-F1200A. Welding and grinding was in process at this location. The QAI observed that the work appeared to be in general compliance with contract documents.

5). OBG Field Welding of Lifting Lug Hole (LLH) Inserts (SMAW)

Exterior: OBG 3W PP22 W4 weld 2

The QAI periodically observed AB/F approved welder Mike Jimenez (ID 4671) performing fit-up, tack welding and root, fill and cover pass welding of OBG 3W PP22 W4 weld 2 per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position. QC Inspector Steve Jensen was periodically 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-D1.5-1050A CU rev. 0. Welding was completed and the QAI observed that the work appeared to be in general compliance with contract documents.

Exterior: OBG 4W PP25 W4 weld 1

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The QAI periodically observed AB/F approved welder Mike Jimenez (ID 4671) performing fit-up, tack welding and root and fill pass welding of OBG 4W PP25 W4 weld 1 per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position. QC Inspector Steve Jensen was periodically 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-D1.5-1050A CU rev. 0. Welding was completed and the QAI observed that the work appeared to be in general compliance with contract documents.

Interior: OBG 6E PP44 E4 weld 1

The QAI periodically observed AB/F approved welder Salvador Sandoval (ID 2202) performing back welding of OBG 6E PP44 E4 weld 1, per the Shielded Metal Arc Welding (SMAW) process in the 4G (overhead) position. See photo below. QC Inspector Steve McConnell was periodically 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-D1.5-1110B Rev. 1. Welding and flush grinding was completed and the QAI observed that the work at this location appeared to be in general compliance with contract documents.

6). OBG East Line Lifting Lug Hole Inserts (QA verification)

Interior: OBG 6E PP44 E4 weld 3

The QAI performed verification Visual Testing (VT) of the flush ground bottom surface of OBG 6E PP44 E4 weld 3. Weld 3 visually verified by the QAI appeared to be in general compliance with contract documents.

In addition to the photographs below QA documented most of the above noted observations in the form of digital photographs which are maintained by METS and are available upon request.

Note: On 09/01/10 the QAI performed Ultrasonic Testing (UT) of OBG 3E/4E ALS 4 and observed a rejectable indication. On this date, upon further evaluation the QAI determined that the previously rejected weld is acceptable per AWS D1.5, Section 6 paragraph 6.26.3.1. See Ultrasonic Testing Report Form TL-6027 generated by the QAI on this date.



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:	Levell,Bill	QA Reviewer
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