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 #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-018801
Date Inspected: 21-Dec-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 900
OSM Departure Time: 1730
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 8E/9E Weld ID: E1, Face A (FCAW-G)
2). OBG Field Splice 7E/8E Weld ID: E1, Face A – (SMAW R-1 Repairs)
3). Longitudinal Stiffeners (ALS) Splice at OBG Field Splice 8E/9E (SMAW)
4). OBG Field Splice 6E/7E Weld ID: A1 (SMAW R-5 Repair)
5). OBG Field Welding of East Line Lifting Rod Access Penetration Inserts (SMAW)
6). OBG East Line Access Penetration Insert & Longitudinal Stiff. (LSE) Splice (SMAW)
7). East Line Lifting Rod Access Penetration Insert Welds (QA verification)
8). OBG Field Splice of Access Penetration Insert Longitudinal Stiffener (QA verification)

1). OBG Field Splice 8E/9E Weld ID: E1, Face A (FCAW)

The QAI periodically observed AB/F approved welder Song Tao Huang (ID 3794) performing welding of root and fill passes at the OBG Field Splice 8E/9E Weld ID: E1. The welding was performed per the Flux Cored Arc Welding (FCAW-G)) process in the 3G (vertical) position. The QAI observed QC Inspectors John Pagliero and Fred Von Hoff were 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. 5-3042B-1. The welding of fill passes was in process. The QAI observed that the work at this location appeared to be in general compliance with contract documents.

2). OBG Field Splice 7E/8E Weld ID: E1, Face A – (SMAW R-1 Repairs)

The QAI periodically observed AB/F approved welder Fred Kaddu (ID 2188) performing repair welding of excavated R-1 Ultrasonic Testing (UT) reject areas per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position. QC Inspector John Pagliero 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. The QAI observed that the work at this location appeared to be in general compliance with contract documents.

3). Longitudinal Stiffeners (ALS) Splice at OBG Field Splice 8E/9E (SMAW)

The QAI periodically observed AB/F approved welder Hua Qiang Hwang (ID 2930) at OBG Field Splice 8E/9E ALS-3, performing welding of root, fill and cover passes per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position. The welding at this location was first from the North face which was completed and then back grinding of the South face and subsequent back welding was completed. 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.

4). OBG Field Splice 6E/7E Weld ID: A1 (SMAW R-5 Repair)

The QAI periodically observed AB/F approved welder Wai Kitlai (ID 2953) performing air carbon arc back gouging and grinding to excavate and prepare one Ultrasonic Testing (UT) reject location for welding. The QAI periodically observed QC Inspector Pat Swain performing Magnetic Particle Testing (MT) of the excavated area 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 periodically observed AB/F approved welder Wai Kitlai (ID 2953) performing repair welding per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position of the R-5 repair in OBG Field Splice 8E/9E Weld A1. See photo below. QC Inspector Pat Swain 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 welder (2953) completed fill and cover pass welding of the repair 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 A1 had the following dimensions and the following Y location:
A1 (R-5) Repair --Y = 560mm, Length = 180mm, Depth = 20mm and Width = 20mm.

5). OBG Field Welding of East Line Lifting Rod Access Penetration Inserts (SMAW)
Interior: OBG 5E PP31 E3 weld 3

The QAI periodically observed AB/F approved welder Salvador Sandoval (ID 2202)) performing air carbon arc back gouging, back grinding and back welding at OBG 5E PP315 E3 weld weld 3, per the Shielded Metal Arc Welding (SMAW) process in the 4G (overhead) position. QC Inspector Pat Swain 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 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 Access Penetration Insert & Longitudinal Stiff. (LSE) Splice (SMAW)

The QAI periodically observed AB/F approved welder Xiao Jian Wan (ID 9677) performing back grinding and back welding per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position on the OBG East Line Access Penetration Insert LSE Splice at 8E PP61.5 E2. 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 Specification (WPS) identified as ABF-WPS-D1.5-1012-3. The welding of root, fill

and cover passes was completed on the North face of LSE and the QAI observed that welder 9677 began to perform a continuation of back welding per the Shielded Metal Arc Welding (SMAW) process in the 4G (overhead) position on the insert weld at this location. QC Inspector John Pagliero 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-D1.5-1010 rev-1. The QAI observed that the welding was in process and the work at this location appeared to be in general compliance with contract documents.

7). East Line Lifting Rod Access Penetration Insert Welds (QA verification)

The QAI performed verification Ultrasonic Testing (UT) of 25% of the lengths of OBG Field Welds of Lifting Rod Access Penetration Inserts at the following locations:

3E PP22-E3-Welds 1 through 4 and 3E PP20-E3-Weld 3.

The OBG Field Welds verified by the QAI at these locations appeared to be in general compliance with contract documents. See Ultrasonic Testing Report Form TL-6027 generated by the QAI on this date.

8). OBG Field Splice of Access Penetration Insert Longitudinal Stiffener (QA verification)

The QAI performed verification Ultrasonic Testing (UT) of 100% of the length of the OBG Field Splice at the following location:

LS West at OBG Access Penetration Insert 2E PP17.5 E2.

The OBG Field Splice verified by the QAI appeared to be in general compliance with contract documents. 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.

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

WELDING INSPECTION REPORT

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Reviewed By: Levell,Bill QA Reviewer