

**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-016644**Date Inspected:** 08-Sep-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). OBG Field Splice 1W/2W Weld ID: ALS2 - (SMAW)
- 2). OBG Field Splice 4E/5E Weld ID: C1 & C2, Face A - (QAI Verification)
- 3). OBG Field Splice 5E/6E Weld ID: C1 & C2 - (QAI Verification)
- 4). OBG Field Splice 5E/6E Weld ID: F1 - (QAI Verification)
- 5). OBG Field Splice 5E/6E Weld ID: B1 - (QAI Verification)
- 6). OBG Field Splice 3E/4E Weld ID: ALS1, ALS2 & ALS3 - (QAI Verification)

- 1). OBG Field Splice 1W/2W Weld ID: ALS2 - (SMAW)

The QAI periodically observed AB/F approved welder Wai Kitlai (ID 2953) performing welding per the SMAW process in the 3G (vertical) position. Mr. Wai Kitlai was welding fill passes at ALS2 from face B after back grinding. 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-D1.5-1012-3. The QAI also periodically observed that AB/F approved welder Kenneth Chappell was present and that Mr. Chappell periodically supplied 9018 electrodes to the welders at this location. 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.

- 2). OBG Field Splice 4E/5E Weld ID: C1 & C2, Face A - (QAI Verification)

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The QAI performed verification Magnetic Particle Testing (MT) of 15% of the length of OBG Field Splice 4E/5E Weld ID: C1 & C2. The 4E/5E Weld ID: C1 verified by the QAI from Y = 2150mm to Y = 2900mm and C2 verified by the QAI from Y = 1400mm to Y = 2200mm appeared to be in general compliance with contract documents. See Magnetic Particle Testing Report Form TL-6028 generated by the QAI on this date.

3). OBG Field Splice 5E/6E Weld ID: C1 & C2 - (QAI Verification)

The QAI performed verification Ultrasonic Testing (UT) of 15% of the length of OBG Field Splice 5E/6E Weld ID: C1 & C2. The 5E/6E Weld ID: C1 verified by the QAI from Y = 2150mm to Y = 2900mm and C2 verified by the QAI from Y = 1400mm to Y = 2200mm appeared to be in general compliance with contract documents. See Ultrasonic Testing Report Form TL-6027 generated by the QAI on this date.

4). OBG Field Splice 5E/6E Weld ID: F1 - (QAI Verification)

The QAI performed verification Visual Testing (VT) of 100%, Ultrasonic Testing (UT) of 25% and Magnetic Particle Testing (MT) of 20% of the length of OBG Field Splice 5E/6E Weld ID: F1. The 5E/6E Weld ID: F1 UT verified by the QAI from Y = 500mm to Y = 850mm and MT verified by the QAI from Y = 0mm to Y = 300mm and VT verified appeared to be in general compliance with contract documents. See Ultrasonic Testing Report Form TL-6027 and Magnetic Particle Testing Report Form TL-6028 generated by the QAI on this date.

5). OBG Field Splice 5E/6E Weld ID: B1 - (QAI Verification)

The QAI performed verification Visual Testing (VT) and Ultrasonic Testing (UT) of 15% of the length of OBG Field Splice 5E/6E Weld ID: B1. The 5E/6E Weld ID: B1 was verified by the QAI from Y = 0mm to Y = 200mm to include a previously repaired UT rejectable area identified by QAI verification UT on 8-26-10. The area verified by the QAI on this date appeared to be in general compliance with contract documents. See Ultrasonic Testing Report Form TL-6027 generated by the QAI on this date.

6). OBG Field Splice 3E/4E Weld ID: ALS1, ALS2 & ALS3 - (QAI Verification)

The QAI performed verification Visual Testing (VT) of 100%, Magnetic Particle Testing (MT) of 30% and Ultrasonic Testing (UT) of 100% of the lengths of OBG Field Splice 1E/2E weld ID: ALS1, ALS2 & LS3. While the QAI was setting up to perform the verification UT, QC Inspector John Pagliero approached and spoke with the QAI. See Summary of conversations below. The welds at ALS1, ALS2 and ALS3 VT, MT and UT verified by the QAI appeared to be in general compliance with contract documents. See Magnetic Particle Testing Report Form TL-6028 and Ultrasonic Testing Report Form TL-6027 generated by the QAI on this date.

**Summary of Conversations:**

At the beginning of the shift the QAI observed the QC NDE status board in the QC Conex office and spoke with QC Inspector Bonafacio Daquinag Jr. Mr. Daquinag stated that OBG Field Splices 5E/6E welds C1, C2 and F1 were all QC VT, MT & UT accepted and were available for QAI verification. Later in the shift while the QAI was proceeding to the QAI verification locations the QAI was approached by QC John Pagliero and was informed that Longitudinal Stiffeners ALS1, ALS2 & ALS3 located at OBG Field Splice 3E/4E were ready for QAI verification.

From Item 6).

Mr. Pagliero stated to the QAI that an indication had been detected and marked by the QC Inspector during QC UT of ALS1. Mr. Pagliero stated that the indication was not rejectable and he had obtained a rating of +11 which is a class D flaw and is acceptable. Mr. Pagliero pointed out the mark on the weld at ALS1.

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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 Mohammed Fatemi (916) 813 3677, who represents the Office of Structural Materials for your project.

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

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