

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-017026**Date Inspected:** 27-Sep-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 6W/7W weld ID: A5, Face A (SMAW)
- 2). OBG Field Splice 6W/7W weld ID: B1, Face A (SMAW)
- 3). OBG Field Splice 6W/7W weld ID: F1, Face A (SMAW)
- 4). OBG Field Splice 6E/7E weld ID: A1, Face A (R-1 Repair SMAW)
- 5). OBG Field Splice 6E/7E weld ID: A4 & A5 Face A (QC UT R-1 Repair)

- 1). OBG Field Splice 6W/7W weld ID: A5, Face A (SMAW)

The QAI periodically observed the in process welding of the OBG Field Splice 6W/7W weld ID: A5 on the A face per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position by approved AB/F welder Hua Qiang Hwang (ID 2930) using 3.2mm E7018 electrodes. QC Inspector Jim Cunningham 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-D1.5-1040A. The QAI observed that the welding parameters (welding amps) obtained by Mr. Cunningham (152A) appeared to comply with the approved WPS. Welding of the cover passes was in completed during the QA Inspectors shift and work at this location appeared to be in general compliance with contract documents.

- 2). OBG Field Splice 6W/7W weld ID: B1, Face A (SMAW)

The QAI periodically observed the in process welding of the OBG Field Splice 6W/7W weld ID: B1 on the A face

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per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position by approved AB/F welder Hua Qiang Hwang (ID 2930) using 3.2mm E7018 electrodes. QC Inspector Jim Cunningham 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-D1.5-1040A. The QAI observed that the welding parameters (welding amps) obtained by Mr. Cunningham (152A) appeared to comply with the approved WPS. Welding of the root and fill passes was in process during the QA Inspectors shift and work at this location appeared to be in general compliance with contract documents.

3). OBG Field Splice 6W/7W weld ID: F1, Face A (SMAW)

The QAI periodically observed the in process welding of the OBG Field Splice 6W/7W weld ID: F1 on the A face per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position by approved AB/F welder Yao Xin Liang (ID 7238) using 3.2mm E7018 electrodes. See photo below. QC Inspector Jim Cunningham 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-D1.5-1040A. The QAI observed that the welding parameters (welding amps) obtained by Mr. Cunningham (153A) appeared to comply with the approved WPS. Welding of the root and fill passes was in process during the QA Inspectors shift and work at this location appeared to be in general compliance with contract documents.

4). OBG Field Splice 6E/7E weld ID: A1, Face A (R-1 Repair SMAW)

The QAI periodically observed AB/F approved welder Fred Kaddu (ID 2188) performing welding of cover passes per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position at (1) one 670mm long R-1 UT repair located from Y = 1300 to Y = 1970mm. The QAI observed the QC Inspector Mr. Tom Pasqualone checking the welding Amps. Mr. Pasqualone informed the QAI that the welding amps were observed to be 178A. The QAI then periodically observed Mr. Kaddu performing air carbon arc gouging to excavate (1) one 250mm long R-1 repair located from Y = 1030 to Y = 1280mm. The QAI periodically observed Mr. Kaddu performing grinding of the excavated area and subsequently Mr. Pasqualone performing Magnetic Particle Testing (MT) of the R-1 repair excavation prior to the commencement of welding. The QAI 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 then periodically observed AB/F approved welder Fred Kaddu (ID 2188) performing repair welding of the excavated area per the SMAW process. 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-D1.5-1000-Repair. The repair welding was in process at this location and the work at this location appeared to be in general compliance with contract documents.

5). OBG Field Splice 6E/7E weld ID: A4 & A5 Face A (QC UT R-1 Repair)

The QAI periodically observed QC Inspector Tom Pasqualone performing UT of R-1 repairs in OBG Field Splice 6E/7E weld ID: A4 & A5, from Face A. See photo below. Mr. Pasqualone utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination of the splice weld. The QC technician performed the required shear wave testing during the testing for weld soundness utilizing a .63 x .75 rectangular transducer. The UT examination was completed at these locations during this shift and the work appeared to be in general compliance with contract documents.

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Summary of Conversations:

Conversations on this date with Quality Control Inspectors were general in nature and pertained to locations of welding and QC activities.

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.

Inspected By: Madison, Bert

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer