

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014180**Date Inspected:** 18-May-2010**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:** Job Site

CWI Name:	Listed Below.		
Inspected CWI report:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A

CWI Present:	Yes	No	
Rod Oven in Use:	Yes	No	N/A
Weld Procedures Followed:	Yes	No	N/A
Verified Joint Fit-up:	Yes	No	N/A
Approved WPS:	Yes	No	N/A
Delayed / Cancelled:	Yes	No	N/A
Component:	Orthotropic Box Girders		

Bridge No: 34-0006**Summary of Items Observed:**

The Quality Assurance Inspector (QAI), Scott Croff, was present at the Self Anchored Span (SAS) job site to observe the scheduled fabrication and welding of components for the SFOBB project. The following observations were made:

- 1) OBG Lifts 3E/4E - plate C field splice repair welding
- 2) OBG Lifts 2W/3W - plate C field splice welding
- 3) OBG Lifts 1W/2W - plate C back welding
- 4) OBG Lifts 5W & 6W - prep at Pier 7

1) The QAI observed ABF personnel welding repairs on plate C at OBG lifts 3E/4E field splice. The QAI noted that this vertical position (3G) complete joint penetration (CJP) weld is being made in segment C2. The QAI noted that the Quality Control (QC) Inspector William Sherwood is monitoring this welding. The QAI observed ABF worker Mitch Sittinger, ID 0315, making the repairs with shielded metal arc welding (SMAW). The QAI was informed that welding procedure specification (WPS) ABF-WPS-D15-1000-Repair is being used for this welding. The QAI randomly measured the preheat, interpass temperature and welding parameters and noted that they appeared to be conforming to the WPS requirements. As the QAI was making these observations, the QAI saw that a final QC OK has been signed off for magnetic particle testing (MT) on this weld under repair. The QAI noted that additional MT will be needed after the repair is complete. See the attached photo.

2) The QAI observed ABF personnel setting up and welding plate C at OBG lifts 2W/3W field splice. The QAI noted that this vertical position (3G) complete joint penetration (CJP) weld is being made in segment C2. The

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QAI noted that the QC Inspector Bernie Docena is monitoring this welding. The QAI observed ABF workers Chun Fai Tsui, ID 3426 and James Zhen, ID 6001, making the welds with gas shielded flux cored arc welding (FCAW-G). The QAI was informed that ABF-WPS-D15-3040A-1 is being used for this welding. The QAI randomly measured the preheat, interpass temperature and welding parameters and noted that they appeared to be conforming to the WPS requirements.

3) The QAI observed ABF personnel back welding plate C at OBG lifts 1W/2W field splice. The QAI noted that the overhead position (4G) CJP weld segments C1 and C2 are being completed after the backing bar has been removed. The QAI noted that the QC Inspector Jim Cunningham is monitoring this welding. The QAI observed ABF workers Jeremy Dolman, ID 5042 and Rory Hogan, ID 3186, making the welds with FCAW-G. The QAI was informed that ABF-WPS-D15-3040A-1 is being used for this welding. The QAI randomly measured the preheat, interpass temperature and welding parameters and noted that they appeared to be conforming to the WPS requirements.

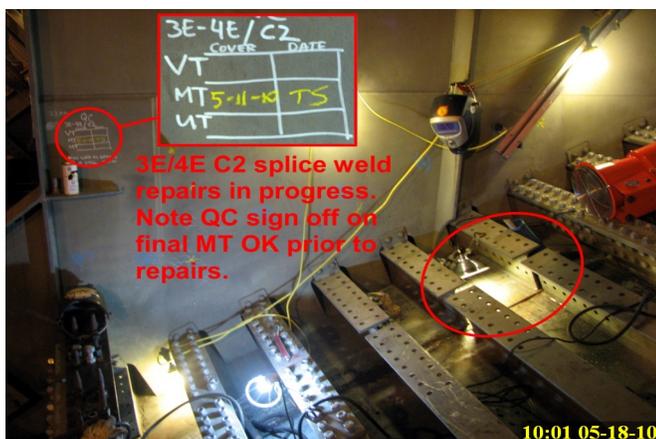
The QAI also observed the bolted splice plates at OBG lifts 1W/2W have been marked up and appear to be tensioned. The QAI noted that the previous repair on the longitudinal plate on 2W that was damaged during shipping has not been zinc primer coated and appears to be rusting. The QAI was aware that the 1st repair of this component was not accepted by the contractor and the QAI was not aware of any additional repairs or final acceptance from the contractor for this repair. The QAI inquired with the QC Inspector Bernie Docena, who was in the area. The QC Inspector remarked that he was not aware of the current condition of the repair and also wondered why the bolts would be tensioned across the splice if there were additional repairs needed. The QAI was informed that the QC Inspector Bill Norris will be asked, as he has been compiling the general weld tracking information. See the attached photo.

The QAI also observed that temporary attachments welded onto the deck at locations around each field splice on the East and West box girders. The QAI has previously reported that the contractor is welding temporary attachments onto the deck and as the work has progressed and equipment moved, the QAI was able to examine the previous welds. The QAI noted that the temporary welds have not been removed completely and appear that no QC inspection has been performed. See the attached photos.

4) The QAI observed ABF activities at the Pier 7 location. The QAI did not observe any Quality Control (QC) Inspectors present. The QAI noted that ABF personnel are setting construction equipment into the OBG segments 5W, 6W, grinding the base metal edges to prep the field splice welding of 5W and removing the temporary shoring from inside of OBG segment 6W. See the attached photo. The QAI noted that ABF personnel are welding on barges and job related equipment. The QAI also noted that the contractor is assembling parts of the temporary trestle on the barges at Pier 7. The QAI did not observe any personnel welding on bridge components.

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Summary of Conversations:

The QAI relayed the observations of OBG splice welding to the QAI Danny Reyes. The QAI also generated a shift turn-over report with this information. The QAI relayed the observations at Pier 7 and the general status of work observed to the Lead QAI Bill Levell. There were no other notable observations or conversations during this shift.

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

Inspected By: Croff, Scott

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer