

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-012381**Date Inspected:** 02-Mar-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:** Job Site**CWI Name:** Bernie Docena, Jesse Cayabyab**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:** Orthotropic Box Girders (OBG)**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 field splice welding
- 2) OBG field splice fit-up / backing bar installation

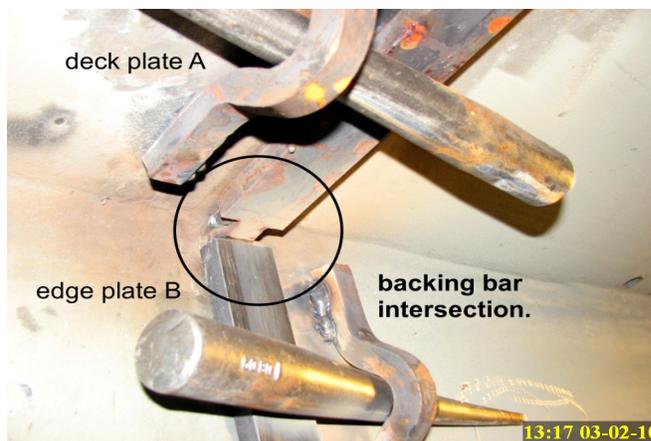
1) The QAI observed ABF personnel making complete joint penetration (CJP) welds inside of plate D at OBG Lifts 1E/2E field splice. The QAI noted that the Quality Control (QC) Inspector Bernie Docena is monitoring the welding at this location. The QAI noted that gas shielded flux cored arc welding (FCAW-G) with 1/16" diameter E71T-1M electrode and Ar/CO2 shielding gas with Welding Procedure Specification (WPS) ABF-WPS-D15-3040B-1. The QAI observed that Jordan Hazelaar, ID 2135, and Jeremy Dolman, ID 5042, are making the FCAW-G CJP welds. The QAI noted that Jordan Hazelaar is welding from D17 to D18.5 and that Jeremy Dolman is welding from D10 to D11. The QAI was informed that the remaining section between stiffener 18 and the corner to side plate E (approximately 250mm) will be welded at a later time. See the attached photo. At the beginning of the welder's shift, the QAI witnessed the QC Inspector visually inspect the areas to be welded. The QC Inspector also conducted magnetic particle testing (MT) on the ends of adjacent splice welds and weld build up (butter) areas. The QC Inspector informed the QAI that the fit-up and butter welds were acceptable and the joints will be welded to completion. The QAI visually examined the joints and noted that they appear to be generally conforming to the contract requirements. The QAI made random observations of the welding parameters, preheat and interpass temperatures and noted that they appeared to be within the WPS and contract

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requirements. During the work shift, the QAI also made random observations of the welds beads in the CJP. The QAI noted that the workmanship appeared to be generally conforming to the contract requirements. This work was in progress at the end of the QAI's shift. The QAI Danny Reyes arrived and assumed the QAI duties.

2) The QAI observed ABF personnel fitting up the field splice of side plate B of OBG Lifts 1E/2E. The QAI noted that the QC Inspector Jesse Cayabyab is monitoring the work and CJP fit-up. The QAI was informed that Mitch Sittinger will use SMAW to weld temporary attachments to the inside of plate B. The QAI was informed that the temporary attachments will be utilized for the alignment of the edge plates and also will hold the backing bar in place. The QAI noted that the backing bar in place on deck plate A will interfere with the backing bar for edge plate B. The QAI asked the QC Inspector what will be done in this location where the backing bars meet. The QAI was informed that the backing bar will be trimmed to fit at the deck plate intersection. The QAI made observations of the backing bar in place, and the temporary welded attachments. The QAI made photos of the backing bar intersections at the top plate A to edge plate B corner, see the attached photo.



Summary of Conversations:

As noted above, the QAI had conversations with the QC Inspector Jesse Cayabyab regarding the fit up of backing bars. The QAI also relayed the observations of OBG splice fit-up and welding to the QAIs Mike Foerder, Rick Bettencourt and Danny Reyes. There were general discussions of the work schedule and the status of the OBG lifts 1E/2E field splice welding. 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
