

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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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-012484**Date Inspected:** 08-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:	Mike Johnson, Jesse Cayabayab, JCWI, Jim Smith	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:

The Quality Assurance (QA) Inspector, Rick Bettencourt was on site at the job site between the times noted above. The QA Inspector was on site to randomly observe the in process joint restoration and welding of the 1E/2E-A, and 1W/2W, 2W/3W-A steel backing the following observations were made:

- 1.) Grinding weld reinforcement at 1E/2E-A
- 2.) CJP welds of steel backing for 1W/2W, 2W/3W, 3W/4W-A
- 3.) QA UT of Steel Backing

1E/2E-A

Upon the arrival of the QA Inspector it was observed the above identified weld was completed. The QA Inspector was informed by the Smith Emery (SE) Quality Control (QC) Inspector Jim Cunningham the visual testing (VT) had not yet been completed by the SE QC Inspectors. The QA Inspector randomly observed the ABF personnel was present at the above location performing grinding tasks of the weld reinforcement. The QA Inspector noted the grinding was in preparation of the ultrasonic testing (UT) to be performed by the SE QC Inspectors on 100% of the total weld length.

1W/2W-A Steel Backing

The QA Inspector noted the above identified steel backing bar was completed on 3/6/10. The QA Inspector noted the QC Steve McConnell Inspector perform UT 100% of the four CJP weld splices. The QA Inspector noted no rejectable indications were located at the time of the testing. The QA Inspector performed UT of 100% of two of the four CJP weld splices and noted no rejectable indications were located at the time of the testing.

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2W/3W-A Steel Backing

The QA Inspector noted the ABF welder Rick Clayborn was setting up to perform the complete joint penetration (CJP) weld splices of the steel backing. The QA Inspector randomly observed the ABF welding representatives identified above had cut and ground bevels in 5 total sections of the 1-1/2" steel backing. The QA Inspector noted the steel backing was being fit up in accordance with pre qualified weld joint designated Bu-2. The QA Inspector verified a 60° included angle single vee groove for a total of 4 CJP weld splices in the steel backing. The QA Inspector randomly observed and noted the SE QC Inspector Bnifacio Daquinag was on site performing visual testing (VT) of the fit up of steel backing prior to welding. After the fit up of the steel backing was accepted by the QC Inspector, the QA Inspector randomly observed the ABF welder Rick Clayborn performing shielded metal arc welding (SMAW) root, fill and cover passes in all 4 of the fit up grooves after preheating to 100°F with a rosebud torch.

The QA Inspector randomly observed the ABF welders to be utilizing a new box of Lincoln E7018 H4R low hydrogen electrodes. The QA Inspector randomly observed the SE QC Inspector Mike Johnson set the SMAW machine to 130Amps, which appeared to be in general compliance with ABF-WPS-D1.5-1031 Rev.0. The QA Inspector randomly observed the ABF welders install weld tabs to either side of the joints to perform the CJP groove welds. The QA Inspector randomly observed the ABF welders complete 4 of the 4 steel backing bar splices from the front side of the joint. The QA Inspector randomly observed the ABF welders back gouge the 4 splices with a grinding disc. After the CJP groove welds had been back gouged to bright metal, the SE QC Inspector Bnifacio Daquinag performed magnetic particle testing (MT). The QA Inspector randomly observed no relevant indications were located at the time of the testing. After the welding was completed the QA Inspector randomly observed the QC Steve McConnell Inspector perform UT 100% of the four CJP weld splices. The QA Inspector noted no rejectable indications were located at the time of the testing. The QA Inspector performed UT of 100% of two of the four CJP weld splices and noted no rejectable indications were located at the time of the testing.

3W/4W-A Steel Backing

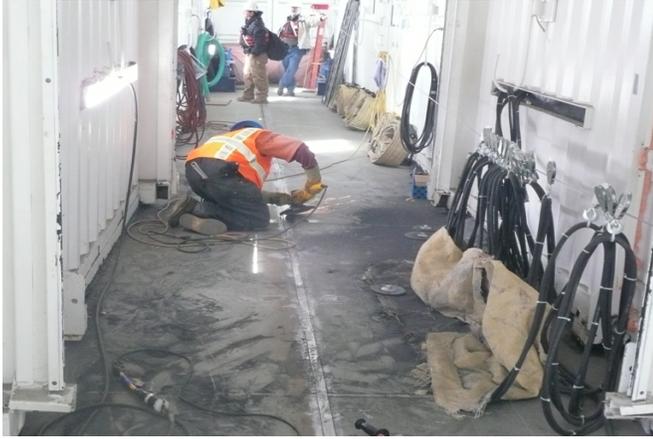
The QA Inspector randomly observed the welding was started on the above identified steel backing. The QA Inspector noted the welding was performed in accordance with the same fabrication procedure identified in the above body of report for 2W/3W-A steel backing. The QA Inspector noted the steel backing was not completed on the QA Inspectors shift.

1E/2E-C,D,E

The QA Inspector randomly observed the steel backing at the three locations identified above are not continuous. The QA Inspector randomly observed the steel backing was not spliced, but installed in separate sections. The QA Inspector wrote and submitted an incident report for the above described issue.

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Summary of Conversations:

see above.

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:	Bettencourt,Rick	Quality Assurance Inspector
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Reviewed By:	Levell,Bill	QA Reviewer
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