

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:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029393**Date Inspected:** 08-Mar-2013**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:** Job Site

CWI Name:	William Sherwood and Bonifacio Quijano			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:

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At west bound Hinge 'A' expansion joint of OBG to skyway, QA randomly observed ABF welder Mathew Cochran continuing to perform flat and horizontal stud welding on 3/4" diameter x 8 3/16" long stud to the top and side of the expansion joint deck implementing procedures ABF-WPS-D1.5-5062 (horizontal position) and ABF-WPS-D1.5-5063 (flat position). The welder has stud welded two (2) pre-production welds then bent to 30 degrees. After welding, ABF QC William Sherwood inspected the diameter of the welds for 360 degree flash all around and noted the existence of 360 degree flash. This QA also performed visual verification on the flash of the stud welds and noted same results. The welder then bent tested the test studs to 30 degree using a 10 pounds sledge hammer and noted acceptable results. The welder started the production stud welding as soon as the pre-production test was completed. During the shift, the same welder performed horizontal test stud welding two 3/4" diameter x 8 3/16" long stud and then performed the bend test to 30 degree. The test result was noted acceptable. The same welder performed horizontal stud welding on the side of the expansion deck implementing procedure ABF-WPS-D1.5-5062. At the end of the shift, flat and horizontal stud welding on this expansion was still continuing and should remain tomorrow.

At OBG 13W-PP116.5-W2 deck access hole (DAH), ABF welder Chris Bruce was noted performing fit up on the DAH infill plate to top deck plate. The alignment was measured less than 2mm and the root opening was also measured 20mm or less which deemed acceptable to project requirements. During fit up, the backing plate that

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was used was not continuous plate which is in contrary to the project requirement. Due to this infraction that was made by ABF, an Incident Report was initiated. Tack welding on the backing plate to the infill plate and top deck plate was also noted during the shift. The welder was noted using Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode.

At OBG 13W-PP120-PP124-W2 top deck plate diverter bar, QA observed ABF welders Mike Jimenez, Lin E. Yun and Guo Wu Chen perform fillet welding on 2 1/4" wide x 3/8" thick diverter bar to top deck. The welders were welding in 2F (horizontal position) using 1/8" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-F1200A. The diverter bar was originally fillet welded both on sides of the bar to the top deck plate but was removed using carbon arc and ground smooth due to interference with the bridge railing. During welding, ABF Quality Control (QC) William Sherwood was noted monitoring the welding parameters of the welders. At the end of the shift, 6mm fillet welding on both sides of the bar was still continuing and should remain tomorrow.

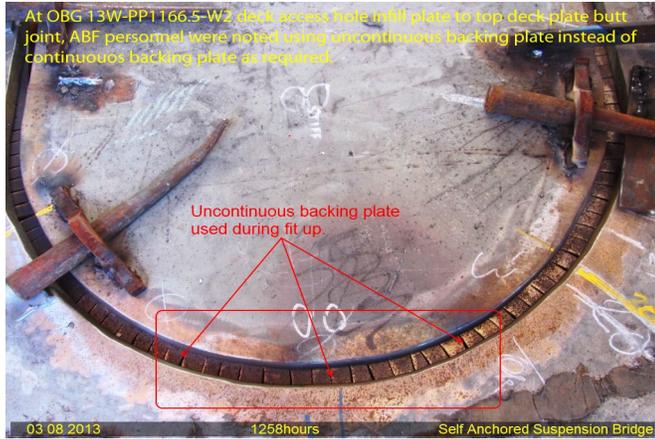
At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT/MT on temporary welded lifting lug removal mentioned below. The QA verification was performed to verify that the VT/MT inspection performed by the QC inspector meet the requirements of the contract documents. At the conclusion of the QA verification it appeared that the ground removal of the lifting lugs and the QC inspection complied with the contract documents.

1. L13E-PP121.65-E4 South – OBG lifting lug (pyramid) removal QA verified

At Bikepath 'E', this QA randomly observed FW Spencer qualified welder Damian Llanos continuing to perform Complete Joint Penetration (CJP) 6G (all position) Shielded Metal Arc Welding (SMAW) welding root pass to cover pass on 1" diameter weldolet to 2 1/2" domestic water line T-joints. The welder was noted welding the root pass with 3/32" diameter E6010 electrode and followed by fill pass to cover pass using 3/32" diameter E7018H4R electrode implementing Caltrans procedure FW Spencer WPS 1-12-1. The welder was noted preheating and removing the moisture of the joint using a portable propylene gas torch prior welding. During welding, ABF QC Bonifacio Daquinag was noted monitoring the parameters of the welder. At the end of the FW Spencer shift, CJP welding on four (4) 1" diameter to 2 1/2' diameter domestic water weldolet T- joints from panel point PP63.5 to PP66.5 were completed and designated as 1/DW1/63.5/BE, 1/DW1/64.5/BE, 1/DW1/65.5/BE and 1/DW1/66.5/BE.

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Summary of Conversations:

No significant conversation occurred today.

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 SMR Gary Thomas 916-764-6027, who represents the Office of Structural Materials for your project.

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Reyes, Danny

QA Reviewer