

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-016112**Date Inspected:** 09-Aug-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	Jim Cunningham and William Sherwood			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 Girder		

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 OBG 4W/5W side plate 'C' (1000mm to 3200mm) inside, QA randomly observed ABF/JV qualified welder Sungtao, Huang ID # 3794 continuing to perform CJP groove (splice) welding fill pass on the splice butt joint. The welder was using automatic welding in the 3G (vertical) position utilizing a dual shield Flux Cored Arc Welding (FCAW-G) with E71T-1M, 1/16" diameter wire electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3042B-1. The joint being welded had a single V-groove butt joint with backing bar. The splice joint was preheated and maintained to greater than 200 degrees Fahrenheit using Miller Proheat 35 Induction Heating System located at the opposite side of the plate prior/during welding. ABF Quality Control (QC) William Sherwood was noted monitoring the welding parameters of the welder. At the end of the shift, fill pass welding was still continuing and should remain tomorrow.

QA randomly observed ABF/JV qualified welder Jeremy Dolman continuing to perform CJP groove (splice) back welding cover pass on Orthotropic Box Girder (OBG) 4E/5E side plate 'E2' outside. The welder was observed back welding in the 4G (overhead) position utilizing a dual shield Flux Cored Arc Welding (FCAW-G) with E71T-1M, 1/16" diameter wire electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3110-4. The welder was using a track mounted welder holder assembly that was remotely controlled. The joint being welded has the backing bar gouged using the Esab Plasma Arc machine and was ground smooth. The gouged and ground splice butt joint was also Non Destructive Testing (NDT) tested using the

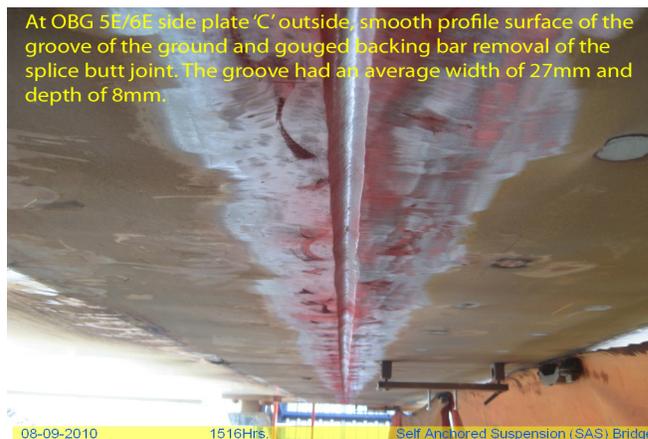
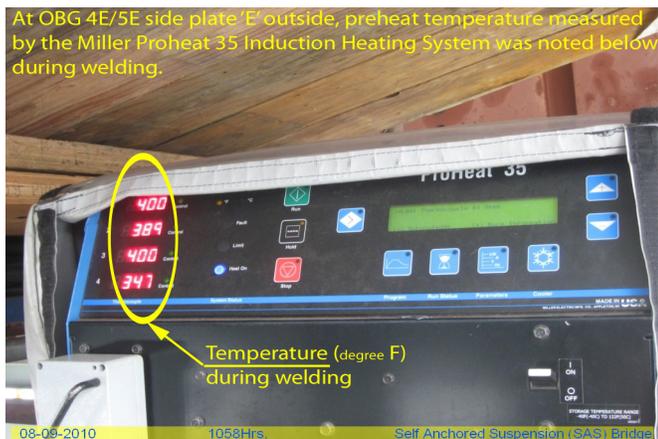
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Magnetic Particle Testing (MT). The splice joint was preheated and maintained to greater than 150 degree Fahrenheit using Miller Proheat 35 Induction Heating System located on top of the plate prior welding and by moving the blanket to the side of the weld being welded during welding. The vicinity was also properly protected from wind and other climatic conditions. ABF Quality Control (QC) Jim Cunningham was noted monitoring the welding parameters of the welder. During the shift, cover pass welding at location E2 was completed.

At OBG 5E/6E side plate 'C' outside, QA randomly observed ABF personnel Mike Maday and Bryce Howell completed plasma arc gouging on the backing bar removal of the splice butt joint. The ABF personnel were observed grinding the groove of the gouged backing bar removal using a disc grinder. At the end of the shift, grinding of the groove of the backing bar removal was completed. The profile of the groove was smooth and ground to a white metal finish. It had an average width of 27mm and approximate depth of 8mm. During the shift, QA observed ABF QC Steven Mc Connell perform the visual test (VT). After qualifying the VT, QC also performed the MT. Results of the VT and MT conducted by the ABF QC were satisfactory.

At 4W/5W side plate 'E' outside, QA observed two ABF personnel Rick Clayborn and Ian Smith perform grinding on the removal of the fitting gear/temporary attachment. Both personnel were using disc grinder with the cut of the disc noted parallel to the direction of the bridge. After completing the grinding of the removal of the temporary attachment, both personnel went to the top deck and prepared the backing bar for the top deck splice joint by grinding/cleaning the rust and mill scale of the bar. After cleaning four bars, welder Rick Clayborn started welding the backing bar splice. The welder was welding at 1G position using Shielded Metal Arc Welding (SMAW) with 1/8" diameter, E7018H4R electrode implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1030. The joint being welded had a single V-groove butt joint with backing bar. This backing bar splice being welded is intended for the incoming splice butt joint at 6W/7W top deck 'A' outside. At the end of the shift, splice welding of the first joint was still continuing and should remain tomorrow.



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 Mohammad Fatemi (916) 227-5298, who represents the Office of Structural Materials for your project.

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Inspected By:	Lizardo, Joselito	Quality Assurance Inspector
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Reviewed By:	Levell, Bill	QA Reviewer
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