

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 #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012652**Date Inspected:** 16-Mar-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1200**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1800**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	Bernie Docena and Mike Johnson			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. The following observations were noted;

1. Orthotropic Box Girder (OBG) L1E/L2E Plate E1 splice welding
2. Orthotropic Box Girder (OBG) L2E/L3E Plate D temporary welded attachments removal
3. Orthotropic Box Girder (OBG) L1E/L2E Plate D backing bar removal
4. Orthotropic Box Girder (OBG) L3E/L4E Plate D splice fit up misalignment

1. The QAI randomly observed manual welding of plate E1 splice utilizing gas shielded Flux Cored Arc Welding. Two American Bridge Fluor/Joint Venture (ABF/JV) welders Rory Hogan (welder ID 3186) and Jeremy Dolman (welder ID 5042) were noted welding fill pass in vertical position (3G) using wire electrode E71T-1M with 1.6mm diameter, implementing Welding Procedure Specification (WPS) ABF-WPS-D15-3042A-1. The two mentioned ABF/JV welders were noted alternately welding the joint to avoid eye flash burn. It was also noted that they were preheating the joint prior welding. During welding, ABF/JV Quality Control Inspector (QCI) Bernie Docena was noted monitoring the welding parameters. Measured parameters of 284 amps, 24.7 volts and travel speed of 260mm per minute noted and deemed acceptable to contract requirements.

2. At Orthotropic Box Girder (OBG) L2E/L3E Plate D, temporary welded attachments removal using electric grinder was observed. The temporary welded attachments being removed were the ones used in installing the backing bar at the bottom of plate D. The ABF/JV personnel performing the grinding were noted being careful not

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to damage the bottom plate base metal. Please see attached photograph for more information.

3. At Orthotropic Box Girder (OBG) L1E/L2E Plate D, ABF/JV personnel were noted preparing the track and gouging machine for the backing bar removal.

4. Inside Orthotropic Box Girder (OBG) L3E/L4E Plate D, QAI has performed random alignment check on the splice fit up. During the random measurement of the splice fit up, it was noted that one side of the fit up assembly has a misalignment of greater than 3.0mm. Although the fit up assembly may not be final yet, QAI has informed the ABF/JV QC Bernie Docena to make note of this misalignment.



Summary of Conversations:

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

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer