

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-015637**Date Inspected:** 13-Jul-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:	William Sherwood and Bernie Docena			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 L5E/L6E side plate 'E' (1000mm to 3840mm) inside, QA randomly observed ABF/JV qualified welder Sungtao, Huang ID # 3794 continuing to perform CJP groove (splice) welding cover pass on the splice butt joint. The welder was observed performing 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-D15-3042A-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 150 degrees Fahrenheit using Miller Proheat 35 Induction Heating System located at the opposite side of the plate prior/during welding. ABF Quality Control (QC) Bernie Docena was noted monitoring the welding parameters of the welder. During the shift, the welder has completed welding the cover at location mentioned above and has moved to 200mm to 1000mm of the same plate. The plate was welded with the same process but it was done manually. At the end of the shift, fill pass welding was still continuing and welding of the splice should continue tomorrow.

At OBG L3E/L4E bottom plate 'D' inside, QA observed ABF QC Jesse Cayabyab perform Ultrasonic Testing (UT) on the repaired splice butt joint. QC had completed the UT on the repaired areas and informed this QA that QC has found two second time repairs out of the repairs he just performed UT.

At OBG L4E/L5E bottom plate 'D' inside, QA randomly observed ABF/JV qualified welder Rick Clayborn

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

perform CJP groove welding repair. The welder was observed welding in the 1G (flat) position utilizing Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1000-Repairs. The weld repairs were excavated to a boat shape. The repair excavations were preheated to more than 140 degree Fahrenheit using propane gas torch prior welding. During the shift, ABF QC William Sherwood was noted monitoring the welder. Prior welding, ABF QC William Sherwood was also observed performing Magnetic Particle Testing (MT) on the repair excavations. During the shift, the welder has completed four welding repair from inside and has moved to the outside of the same plate to perform more welding repairs. One ABF personnel was observed excavating the outside repairs at the end of the shift.

At the E-line top deck, QA randomly observed ABF/JV qualified welder Fred Kaddu perform fillet welding all around 3/4" diameter X 12" long bolt to the cantilever bike path support. The welder was noted adding more weld to the existing fillet weld that was welded from ZPMC, China per Contractor Change Order CCO 99. The welder was observed welding in the 2F (horizontal) position utilizing Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-F1200A Rev. 1. The existing fillet weld connection was preheated to more than 150 degree Fahrenheit using propane gas torch prior welding. The welding activity was monitored by ABF QC William Sherwood. During the shift, the welder has completed the 10mm fillet weld on 20 connections (five bike path supports with 4 bolts per support) and was working on the 6th support at the end of the shift.



Summary of Conversations:

During QA's conversation with ABF QC William Sherwood, QC mentioned that they were adding more weld to the undersize fillet weld between the 3/4" diameter X 12" long bolt/rod to the cantilever bike path support that was welded from ZPMC China. According to QC, the task to make the fillet weld size to 10mm had been approved per Contractor Change Order CCO 99.

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

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Reviewed By: Levell,Bill

QA Reviewer