

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 #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001117**Date Inspected:** 11-Dec-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Lenfeng**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:** Tower Mock-up**Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

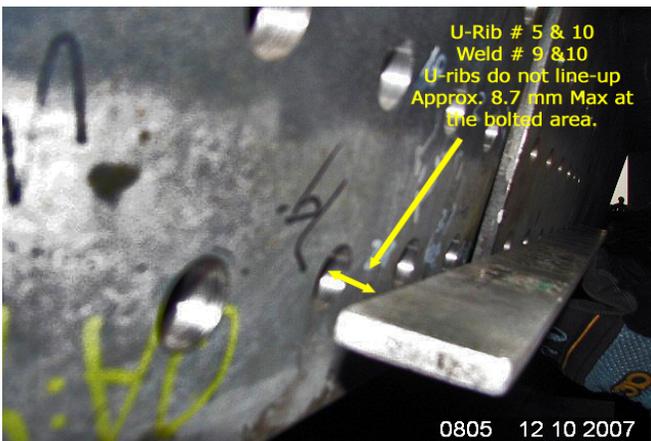
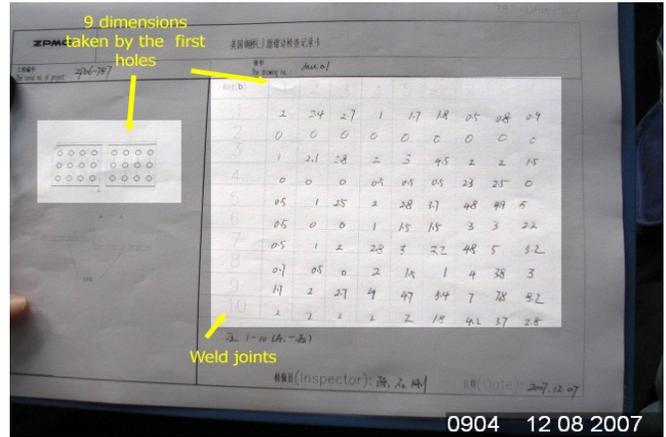
Item Description	WBS	Dwg No.	Status
1 Tower Mock-up 89 M Web Connection plates The QA inspector observed ZPMC welders Dai Lu and Wang Zhang Hua performing tack welding operations with the shielded metal arc welding (SMAW) process with 4.8 mm electrode Lincoln Excalibur E-9018-HR4 on the (1G) flat position at the weld joint # 4A and 3A at the A709 HPS 485W web connection plate SA-42. The QA inspector performed random verifications of the welding parameters. The QA found that the welding parameters appeared to be in general compliance with the contract documents.			
2 Shear link MA-25 Welding The QA inspector observed that ZPMC started welding the shear link MA-25 subassembly without following the fabrication procedure sheet # FP-MUB-25 step # 2 for the 89 Meters Tower Mock-up. ZPMC welded a shear link in lieu of a pair at the same time as per ZPMC's fabrication procedure. The QA inspector brought to the attention of Caltrans Task Leader Robert Cuellar. Mr. Cuellar directed the QA inspector to red lined as a change on the approved ZPMC's fabrication procedure.			
3 Deck Mock-up Alignment verifications The QA inspector collected data after performing alignment verifications at the U-ribs bolted splice connection on the OBG Deck Mock-up performed on 12-10-2007. The maximum misalignment measured was 8.7 mm at the bolting area on the U-rib # 05 by weld # 9 and 10. Below show the dimensional inspection reports from ZPMC and the QA			

WELDING INSPECTION REPORT

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inspector measuring the misalignment at the bolted splice area. Also, is shown a photograph of Caltrans QA representative Paul Stoval assisting the QA inspector on the alignment verifications on 12/10/2007.

Splice #	Location	U-ribs U-01 through U-01			U-ribs U-01 through U-05		
		Top	Midline	Bottom	Top	Midline	Bottom
# 1	U-01 & U-01	0	0	0	-1	-1	-2.5
	CBWJ#1	0	0	0	-1	-1	-3
	U-01 & U-01	-1	-1	-1	-1	-1	-1
# 2	U-02 & U-02	4.5	3.5	2.2	0	0	0
	CBWJ#2	2.5	2.2	2.5	0	0	0
	U-02 & U-02	0	0	-1	2.7	2.2	-1
# 3	U-03 & U-03	0	0	-1	2.6	2.2	-1
	CBWJ#3	4.2	2.2	2.2	0	0	0
	U-03 & U-03	0	0	0	3	2.7	2.5
# 4	U-04 & U-04	0	0	0	2.8	2.5	1.5
	CBWJ#4	2.3	3.2	1.2	0	0	0
	U-04 & U-04	0	0	0	0	0	0
# 5	U-05 & U-05	0	0	0	4.2	3.6	4
	CBWJ#5	0	0	0	1.2	1.2	1.2
	U-05 & U-05	0	0	1	1.5	1.9	1.4



Summary of Conversations:

As noted 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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Acuna, Alfredo

Quality Assurance Inspector

Reviewed By: Cuellar, Robert

QA Reviewer