

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 #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001304**Date Inspected:** 27-Dec-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Wu Ming Kai	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:	OBG/89M Mockup	

Summary of Items Observed:

Caltrans Quality Assurance Inspector Gabriel Quintana (QA Inspector) arrived at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China to observe fabrication and Quality Control Inspectors (QC Inspectors) perform their duties and responsibilities as specified in the contract documents, approved plans, fabrications documents and Special Provisions for this project. While on site the QA Inspector observed the following:

Bay 3- QA Inspector randomly observed ZPMC qualified welder Zhang Feng, Identification (ID) #049769, utilizing the Shielded Metal Arc Welding (SMAW) process per the approved Welding Procedure Specification (WPS) WPS-B-P-2112-FCM while performing tack welding on Side Plate SP005 weld joints SP005-01-003/004 and SP005-01-014/015 to PL68A and P68B plates. The QA Inspector observed ZPMC Certified Weld Inspector (CWI) Wu Ming Kai monitoring welding and preheating parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 175 amps, welding voltage 26 volts. The weld parameters appeared to comply with contract requirements and the approved WPS.

Bay 3- QA Inspector randomly observed ZPMC qualified welder Li Mengqian, ID #054460 performing weld repairs to Side Plate SP017 at weld joint SP017-01-001 joining plates PL76A and PL76B. QA Inspector observed that preheating and welding current was monitored by QC Inspector Wu Ming Kai. QA observed the Flux Core Metal Arc Welding (FCAW) process is used per WPS-345-FCAW-1G(1F)-FCM-Repair. QA Inspector observed welding parameters of 295 amps and 29.5 volts were used during the weld repair. Welding and welding parameters observed by QA Inspector appear to be in general compliance with the approved WPS and contract requirements.

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Bay 3- The QA Inspector randomly observed ZPMC qualified welder Wei Dashuai, ID Number 051246, utilizing the FCAW process with the approved procedure WPS-BT-2132-2 while performing tack welding of Side Plate SP063 at weld joint SP063-01-022/021. QA Inspector performed random monitoring of the welding parameters and observed 265 amps and 28.6 volts during welding. The weld parameters appeared to comply with contract requirements and the approved WPS.

Bay 2- QA Inspector observed that tack welding was completed on the Cross Brace Sub-Assembly for the 89 Meter Mockup. Quality Control Inspector (QC) Zhoa Chen Sun informed QA Inspector that the tack weld are completed and have been inspected by the Magnetic Particle Inspection Method (MT). QA Inspector observed that the weld map for the Sub-Assembly did not properly identify one of the four fillet welds. QA Inspector reviewed the drawings with QC Inspector Xu Jun and QC Inspector Zhoa Chen Sun and the QA Inspector was informed that the drawing will be presented to the Technical Department for clarification.

At this stage of fabrication, all items observed by QA Inspector appear to comply with the requirements of the Standard Specifications, contract Special Provisions, approved drawings, Welding Code AWS D1.5 (2002) and approved Welding Procedure Specification. See the following photographs which show work observed and other details.



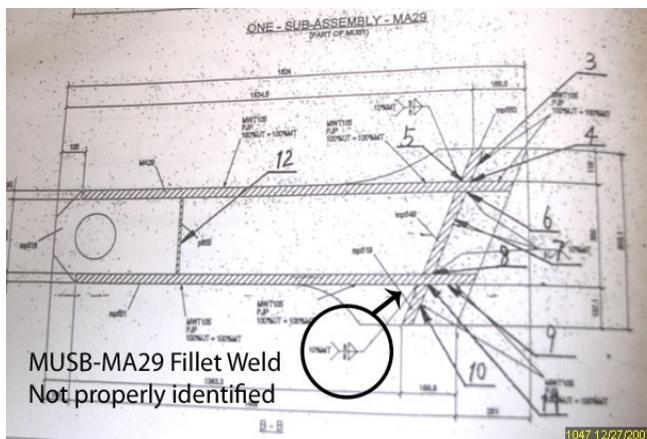
Photograph shows 89 Meter Mock up of Cross Brace Sub-Assembly



Photograph shows work in progress on SP005



Photograph shows Weld repair in progress on SP017



MUSB-MA29 Fillet Weld Not properly identified

Summary of Conversations:

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General communications took place between the QA and QC Inspector. QC Inspector Li Xiu Yang acted as a translator for the QA Inspector during the review of the Cross Brace Sub Assembly. Li Xiu Yang informed the QA Inspector that he will contact a representative of Caltrans with any information or revisions regarding the fillet weld that is not properly identified.

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:	Quintana,Gabriel	Quality Assurance Inspector
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Reviewed By:	Cochran,Jim	QA Reviewer
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