

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-000613**Date Inspected:** 27-Sep-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Ye Yongjun**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:** Caltrans Tower Mock up**Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Roscoe Dixon randomly observed the in progress fabrication of the Tower Mock-up scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge. The ZPMC qualified welder Zhang Binghua ID # 053316 was observed by the QA Inspector performing welding repairs at the junction of the longitudinal stiffener MA1-5 piece marks MP6 to Sub-Assembly MUSA-MA1 Face E (Skin Plate E) weld joint # 5 and weld repair designated as weld repair # 4 per the ZPMC weld repair report for skin E. The ZPMC Certified Welding Inspector (CWI) Ye Yongjun informed the QA Inspector the approved welding procedure specification WPS-345-FCAW-1G- (1F) Repair was being followed to perform the repair. The Base metal was designated as A-709 Grade 50. The ZPMC welder was utilizing semi-automatic Flux Cored Arc Welding (FCAW) process in the flat (1G) position with the 1.4 mm diameter electrode designated as E71T-1 /AWS A5.20, brand name Supercored. The QA Inspector reviewed the Quality Control (QC) Inspector Chin Tan records log. The QA Inspector also performed random verification of the weld parameters and documented them as follows: welding amperage 280 amps, welding voltage 30 volts with a travel speed of 305 millimeters per minute. The QC inspector informed the QA Inspector the repair length was measured at 420 millimeters long. The QA Inspector verified the length by measuring the length by measuring the area excavated, which had been backgouged by the use of air carbon arc gouging to repair the identified weld. The QA Inspector randomly verified the heat interpass temperature during filler passes with a heat temperature crayon. The QA Inspector randomly observed ZPMC qualified welder Zhang Binghua ID # 053316 performing a weld repairs to weld the excavation of Complete Joint Penetration CJP weld joint number 4 at the junction of the longitudinal stiffeners piece marks MP5-2 to SA MUSA-MA2 Face A (Skin Plate E). The QA Inspector verified the length by measuring the area which had been excavated by ZPMC QC Chin Tan monitoring the weld parameters and documented them as follows: welding amperage 280 amps, welding voltage 30 volts with a travel

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speed of 305 millimeters per minute. The QA inspector The QA Inspector verified the welding parameters recorded for ZPMC Qualified Welder Zhang Binghua appeared to be in accordance with the contract documents.

Item	Description	WBS	Dwg No.	Status
1	77 meter elevation Mock up	N/A	MUSA-MA1	in progress

Summary of Conversations:

As noted above and basic communication between QC Inspector and QA inspector when and where welding inspections are to be performed.

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:	Dixon,Roscoe	Quality Assurance Inspector
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Reviewed By:	Cochran,Jim	QA Reviewer
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