

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018355**Date Inspected:** 14-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. Xu Le Feng.**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 and Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

**NDT, BAY 10**

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as Tower Façade. The weld designations reviewed are as follows.

ND1-SFSA4-17-1, 8, 9, 12, 4, ND1-SFSA4-42-1, 2, ND1-SFSA4-630-3, 5, 8, 12, 14

ND1-SFSA4-90-3, 4, 7, 9, 15, 20, 21, 28, 37, 40

NDT Notification No-07346

**BAY 11**

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as OBG Bike Path. The weld designations reviewed are as follows.

BK004A6-022-003, 027, 004, 006, 008, 039, 009, 011

BK004A8-022-003, 027, 004, 121, 006, 039, 009, 126

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# WELDING INSPECTION REPORT

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NDT Notification No-07347

This QA Inspector observed the following work in progress:

BAY 11

OBG Bike path, FCAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040723, Perform Flux Core Arc Welding (FCAW) on OBG Bike path. Joint identified as BK005B2-004-016, 018. ZPMC CWI Identified as Yu Dong Ping. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2231-B-L1b-F-1.

OBG Bike path, SMAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 202100, Perform Shielded Metal Arc Welding (SMAW) on OBG Bike Path. Joint identified as BK005B8-004-004, 121, 006, 123. ZPMC CWI Identified as Yu Dong Ping. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2112.

This QA Inspector observed ZPMC qualified welding personnel identified as 040655, Perform Shielded Metal Arc Welding (SMAW) on OBG Bike Path. Joint identified as BK004A3-021-073, BK004A4-021-084. ZPMC QC Identified as Shao Hai Lang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2112. For more information see below attached picture number 1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040655, Perform Shielded Metal Arc Welding (SMAW) on OBG Bike Path. Joint identified as BK004A3-018-073, BK004A4-018-084. ZPMC QC Identified as Shao Hai Lang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2112.

OBG Repair welding, SMAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040655, Perform Shielded Metal Arc Welding (SMAW) on OBG Bike path bottom cover plate. Joint identified as BK004A2-053-014, 015, 017, 019, 020. ZPMC CWI Identified as Xu Le Feng with critical welding repair report CWR-B-CWR2163. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-1G (1F) Repair-2. For more information see below attached picture number 2.

BAY 10

OBG FCAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 053869, 040533 Perform Flux Core Arc Welding (FCAW) on OBG Bike path. Joint identified as BK004A5-025-014, 015, 024, 025, 054, 055, 064, 065. ZPMC QC Identified as Lijun. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132 and WPS-B-T-2133.

This QA Inspector observed ZPMC qualified welding personnel identified as 052075 Perform Flux Core Arc Welding (FCAW) on OBG Bike path. Joint identified as BK004A5-033-058, 059, 060, 061. ZPMC QC Identified as Lijun. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2133.

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This QA Inspector observed ZPMC qualified welding personnel identified as 056364, Perform Shielded Metal Arc Welding (SMAW) on OBG Bike Path. Joint identified as BK004A8-027-004, 121, 006, 123. ZPMC QC Identified as Lijun. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2112 and WPS-B-P-2113.

OBG Repair welding, FCAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 053869, 040533, Perform Flux Core Arc Welding (FCAW) on OBG Bike path. Joint identified as BK004A1-031-043. ZPMC QC Identified as Yu Zhi Lai with Temporary welding repair report WRR-B-WR16980. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-FCAW-2G (2F) Repair-1.

Magnetic Particle Testing:

This QA Inspector observed AB/F Magnetic Particle Testing Inspector, performed MT on OBG Bike path stringer plate to deck plate weld. Joint identified as BK004A-032, 8A, 8C, 9A, 9C, 10A.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



### Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

### 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 Thomas Ho phone : 150002048250, who represents the Office of Structural Materials for your project.

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**Inspected By:** Gaikwad,Shailesh

Quality Assurance Inspector

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**Reviewed By:** Clifford,William

QA Reviewer