

**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-017567**Date Inspected:** 13-Oct-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. Qiu Wen.**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 Lift 3 Tower 89M Facade. The weld designations reviewed are as follows.

ND1-SFSA3-21-12, 14,

ND1-SFSA3-40-5

NDT Notification No-06936

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 West Tower lift 5 Grillage plate. The weld designations reviewed are as follows.

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WSD1-TL5-4B/F-3, 4,  
NDT Notification No-06938

This QA Inspector observed the following work in progress:

BAY 10

## SMAW PROCESS:

This QA Inspector observed ZPMC qualified welding personnel identified as 056364, Perform Shielded Metal Arc Welding (SMAW) on North Tower lift 5 skin E cover plate on cope hole area. Joint identified as NSD1-TL5-3E/F-17, 18. ZPMC QC Identified as Sun Tiang Liang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-4314-Tc-P5-2. For more information see below attached picture number 1.

This QA Inspector observed ZPMC qualified welding personnel identified as 053829, Perform Shielded Metal Arc Welding (SMAW) on Tower façade plate. Joint identified as ND1-SFSA3-41-7, 8, 9, 10. ZPMC QC Identified as Jiang Xiang Bo. 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 2.

## OBG Bike path plate FCAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 057258, 052075, Perform Flux Core Arc Welding (FCAW) on OBG bike path stringer plate to deck plate. Joint identified as BK004A7-033-013, 014, 019, 020, 140, 141, 142, 143. ZPMC QC Identified as Li Peng fei. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132.

This QA Inspector observed ZPMC qualified welding personnel identified as 057258, 052075, 053869, 057180, Perform Flux Core Arc Welding (FCAW) on OBG bike path stiffener plate to deck plate. Joint identified as BK004A5-033-016, 017, 022, 023, 036, 037, 042, 043, 058, 057, 062, 063. ZPMC QC Identified as Li Peng fei. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132.

This QA Inspector observed ZPMC qualified welding personnel identified as 057258, 052075, Perform Flux Core Arc Welding (FCAW) on OBG bike path stringer plate. Joint identified as BK004A4-033-040, 041. ZPMC QC Identified as Li Peng fei. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132.

This QA Inspector observed ZPMC qualified welding personnel identified as 053869, 057180, Perform Flux Core Arc Welding (FCAW) on OBG bike path stringer plate. Joint identified as BK004A7-033-037, 038, 043, 044, 178, 178, 180, 181. ZPMC QC Identified as Li Peng fei. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132.

## Green Tagging

This QA inspector performed Visual Inspection for Green Tagging which were previously tested and accepted by ZPMC Quality Control personnel Mr. Zhang Hvang and ABF QA personnel Mr. Liang Biao. The members are

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identified as Tower Façade plate L3-E6-(Skin E 89M W/N Façade). The green Tag number is identified as # 13519.

## Magnetic Particle Testing:

This QA Inspector observed ZPMC Magnetic Particle Testing Inspector, performed MT on OBG bike path stringer plate to deck plate joint. Bike path plate identified as BK004A7-027, 8A, 8C, 9A, 9C, 10A. For more information see below attached picture number 3.

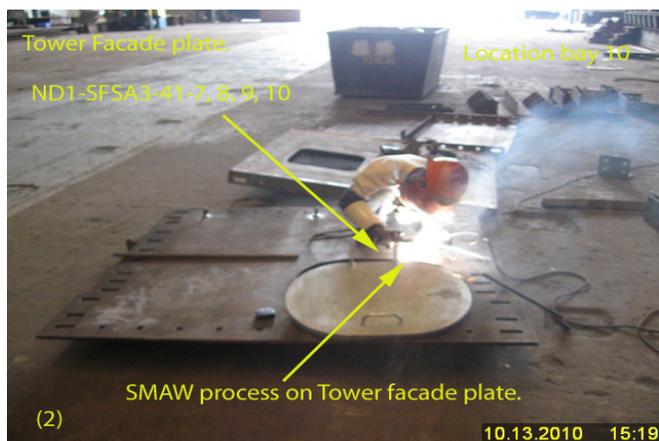
## BAY 11

### OBG Bike path plate FCAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 049220, 042218, Perform Flux Core Arc Welding (FCAW) on OBG bike path plate. Joint identified as BK004A6-017-072, 073. ZPMC QC Identified as Wang Chuang Xin. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2232.

This QA Inspector observed ZPMC qualified welding personnel identified as 053316, Perform Flux Core Arc Welding (FCAW) on OBG bike path plate. Joint identified as BK004A6-017-063, 070, 080, 078. ZPMC QC Identified as Wang Chuang Xin. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2332-Tc-P4-F.

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



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## 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 Michael Ng Phone: 15921845703, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Gaikwad,Shailesh	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford,William	QA Reviewer

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