

**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-013678**Date Inspected:** 05-Mar-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:** 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 Components**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

BAY 10

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 005268

Ultrasonic Testing (UT)

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The member is identified as Tower Component. The weld designations reviewed are as follows:

NORTH TOWER LIFT 4 ABCORNER

NSTL4 – 3B/L – 4A/B

NSTL4 – 3L/L – 4A/B

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 005270

Visual Inspection Testing (VT)

This QA inspector performed VT of the area previously tested and accepted by ZPMC Quality Control personnel. The member is identified as Tower Component. The identified component reviewed as follows:

NORTH TOWER LIFT 4 SKIN 'D' PAD EYES

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1. NSD1 – FSDA4 – 3A/C – 33~37

## Magnetic Particle Testig (MT)

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The member is identified as Tower Component. The weld designations reviewed are as follows:

NORTH TOWER LIFT 4 SKIN 'D' PAD EYES

1. NSD1 – FSDA4 – 3A/C – 33~37 – Green Tag # 11608

This QA Inspector observed the following work in progress:

## Sub-Merged Arc Welding (SAW):

Weld joint # 13B located on Grillage Plate SSD1 – TL5 – 1B – F. Welder is identified as 209051. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Zai. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3221 – B – U3c – S – 1.

Weld joint # 17B located on South Tower Lift-5 C/D corner SSD1 – TL5 – 1B – F. Welder is identified as 052917. ZPMC Quality Control (QC) Inspector is identified as Du Zhi Qun. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3221 – B – U3c – S – 1.

(See attached Photo)

Weld joint # 6B located on Grillage Plate NSD1 – TL5 – 3B – F. Welder is identified as 207745. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Zai. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3221 – B – U3c – S – 1.

## Surface Welding by Flux Core Arc Welding (FCAW):

Due to the reduction in length after Heat Straightening. Surface welding / weld build up being performed according to the weld repair report #T-WR3081 located on West Tower Shearing Plate # WD1 – A28. Welder is identified as 054069. ZPMC Quality Control (QC) Inspector is identified as Gong Liang zhu. The welding variables recorded by QC appeared to comply with the WPS – 345 – FCAW – 2G (2F) – Repair.

(See attached Photo)

BAY 11

This QA Inspector observed the following work in progress:

## Shielded Metal Arc Welding (SMAW):

Repair welding of a weld joint # 1-8B according to the weld repair report #T-WR-3049 located on Strut Plate ED1 – STSA4 – 6 – 135M. Welder is identified as 046704. ZPMC Quality Control (QC) Inspector is identified as Liu Dao Feng. The welding variables recorded by QC appeared to comply with the WPS –345+485 – SMAW – 2G (2F) – FCM – Repair – 1.

Repair welding of a weld joint # 61A according to the weld repair report #T-WR-3072 located on West Tower Lift-4 D/E corner WSTL4-2B/L. Welder is identified as 049099. ZPMC Quality Control (QC) Inspector is

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identified as Zhao Mao Mao. The welding variables recorded by QC appeared to comply with the WPS – 345 – SMAW – 2G (2F) – Repair.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



### Summary of Conversations:

No Relevant Conversations.

### 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 Skyler Guest - 15000422360, who represents the Office of Structural Materials for your project.

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**Inspected By:** Kumar,Sandeep

Quality Assurance Inspector

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**Reviewed By:** Clifford,William

QA Reviewer