

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017538**Date Inspected:** 11-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:** 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 & OBG 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.

**TOWER JETTY**

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 006924

**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 designations reviewed are as follows:

LIFT-3, MANHOLE CONNECTION PLATE AT 89M ELEVATION

DA3 - 1 - 1; 2 - N

DA3 - 1 - 1; 2 - S

**Magnetic Particle Testing (MT)**

This QA inspector performed MT 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 designation reviewed as follows:

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## WELDING INSPECTION REPORT

( Continued Page 2 of 4 )

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LIFT-3, MANHOLE CONNECTION PLATE AT 89M ELEVATION

DA3 – 1 – 1; 2 – N – GREEN TAG#13637

DA3 – 1 – 1; 2 – S – GREEN TAG#13636

BAY#10

ORTHOTROPIC BOX GIRDER (OBG) AT BAY#10

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 21 located on Bike Path BK004A5 – 027. Welder is identified as 040268. ZPMC Quality Control (QC) Inspector is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2113.

Weld joint # 214 located on Bike Path BK004A7 – 027. Welder is identified as 040268. ZPMC Quality Control (QC) Inspector is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2112.

Weld joint # 129 located on Bike Path BK004A7 – 027. Welder is identified as 056369. ZPMC Quality Control (QC) Inspector is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2113.

Fluxcored Arc Welding (FCAW):

Weld joint # 223 located on Bike Path BK004A6 – 031. Welder is identified as 057180. ZPMC Quality Control (QC) Inspector is identified as Li Peng Fei. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

Weld joint # 42 located on Bike Path BK004A5 – 031. Welder is identified as 040302. ZPMC Quality Control (QC) Inspector is identified as Li Peng Fei. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

BAY#11

This QA Inspector observed the following work in progress

Fluxcored Arc Welding (FCAW):

Weld joint # 045 located on Bike Path BK004A6 – 019. Welder is identified as 053316. ZPMC Quality Control (QC) Inspector is identified as Yu Dong ping. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

Weld joint # 047 located on Bike Path BK004A6 – 019. Welder is identified as 053316. ZPMC Quality Control (QC) Inspector is identified as Yu Dong ping. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2133. (See attached photo)

Weld joint # 019 located on Bike Path BK004A4 – 018. Welder is identified as 040759. ZPMC Quality Control (QC) Inspector is identified as Yu Dong ping. The welding variables recorded by QC appeared to comply with the

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## WELDING INSPECTION REPORT

( Continued Page 3 of 4 )

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WPS – B – T – 2132.

Weld joint # 041 located on Bike Path BK004A3 – 018. Welder is identified as 040704. ZPMC Quality Control (QC) Inspector is identified as Yu Dong ping. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2133.

BAY#12

ORTHOTROPIC BOX GIRDER (OBG) AT BAY#12

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 006920

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 OBG Component. The identified component designations reviewed are as follows:

U-RIB SPLICE CONNECTION PLATE

SA3114A – 034 – 001; 002

SA3114A – 035 – 001; 002

SA3114A – 036 – 001; 002

SA3114A – 037 – 001; 002

Magnetic Particle Testing (MT)

This QA inspector performed MT 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 OBG Component. The weld designation reviewed as follows:

U-RIB SPLICE CONNECTION PLATE

SA3114A – 034 – 001; 002

SA3114A – 035 – 001; 002

SA3114A – 036 – 001; 002

SA3114A – 037 – 001; 002

This QA Inspector observed the following work in progress

Fluxcored Arc Welding (FCAW):

Weld joint # 03 located on U-rib splice plate SA3111B – 016. Welder is identified as 062259. ZPMC Quality Control (QC) Inspector is identified as Zhao Jian Hang. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U4b – F.

Weld joint # 04 located on U-rib splice plate SA3111A – 020. Welder is identified as 062259. ZPMC Quality Control (QC) Inspector is identified as Zhao Jian Hang. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – Tc – U4b – F.

MILLING YARD

This QA Inspector observed the following work in progress

ZPMC performed machining for south tower lift-5 prior completion of 100% NDT (Ultrasonic Testing) on following grillage weld designations:

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# WELDING INSPECTION REPORT

( Continued Page 4 of 4 )

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SD1-TL5-1B/F-53 &22 (SKIN D/E CORNER WELDS)  
(See attached picture)

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 Michael Ng - 15921845703, who represents the Office of Structural Materials for your project.

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**Inspected By:** Kumar,Sandeep

Quality Assurance Inspector

**Reviewed By:** Clifford,William

QA Reviewer

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