

**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-018111**Date Inspected:** 13-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1100**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	Zhao Chen Sun		
<b>Inspected CWI report:</b>	Yes	No	N/A
<b>Electrode to specification:</b>	Yes	No	N/A
<b>Qualified Welders:</b>	Yes	No	N/A
<b>Approved Drawings:</b>	Yes	No	N/A

<b>CWI Present:</b>	Yes	No	
<b>Rod Oven in Use:</b>	Yes	No	N/A
<b>Weld Procedures Followed:</b>	Yes	No	N/A
<b>Verified Joint Fit-up:</b>	Yes	No	N/A
<b>Approved WPS:</b>	Yes	No	N/A
<b>Delayed / Cancelled:</b>	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**

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Repair welding of weld joint # 06 located on West tower Lift-4 Skin 'A', 119 M Backfill plate WSD1 – FASA4 – 2B/E as per the critical weld repair report # T-CWR705. Welder is identified as 202354. ZPMC Quality Control (QC) Inspector is identified Sun Zi Wang. The welding variables recorded by QC appeared to comply with the WPS – 345+485 – SMAW – 4G (4F) – Repair – 2.

Repair welding of weld joint # 17 located on North tower Lift-4 Skin 'A', 119 M Backfill plate NSD1 – FASA4 – 1B/E as per the weld repair report # T-WR3746. Welder is identified as 040582. ZPMC Quality Control (QC) Inspector is identified Sun Zi Wang. The welding variables recorded by QC appeared to comply with the WPS – 485 – SMAW – 2G (2F) – Repair – 1.

Repair welding of weld joint # 26 located on East tower Lift-4 Skin 'A', 119 M Backfill plate ESD1 – FASA4 – 2B/E as per the weld repair report # T-WR3745. Welder is identified as 044541. ZPMC Quality Control (QC)

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Inspector is identified Sun Zi Wang. The welding variables recorded by QC appeared to comply with the WPS – 485 – SMAW – 2G (2F) – Repair – 1. (See attached photo)

Repair welding of weld joint # 06 located on West tower Lift-4 Skin ‘A’, 119 M Backfill plate WSD1 – FASA4 – 2B/E as per the critical weld repair report # T-CWR705. Welder is identified as 202323. ZPMC Quality Control (QC) Inspector is identified Sun Zi Wang. The welding variables recorded by QC appeared to comply with the WPS – 345+485 – SMAW – 4G (4F) – Repair – 2.

BAY#11

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 2A located on Lift-5 bracket ND1 – BRSA5 – 2. Welder is identified as 040724. ZPMC Quality Control (QC) Inspector is identified as Li Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – TC – U4b.

Weld joint # 3A located on Lift-5 bracket ND1 – BRSA5 – 2. Welder is identified as 040724. ZPMC Quality Control (QC) Inspector is identified as Li Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – TC – U4b.

(See attached photo)

Heat Straightening:

Heat Straightening being performed on Lift-6 Tower head component identified as WSD1-FASA6-4 by oxy-acetylene flame method to remove the distortion that occurred after welding. ZPMC Quality Control (QC) Inspector is identified as Li Bin present at the location. This activity appeared to comply with the Heat Straightening Report # HSR1 (T) – 11599.

ORTHOTROPIC BOX GIRDER (OBG) AT BAY#11

This QA Inspector observed the following work in progress

Fluxcored Arc Welding (FCAW):

Weld joint # 131 located on Bike Path, BK004A5 – 022. Welder is identified as 040723. 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 – 2233T.

Weld joint # 078 located on Bike Path, BK004A6 – 022. 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 – 2232 – Tc – P4 – F.

Weld joint # 112 located on Bike Path, BK004A5 – 022. Welder is identified as 040723. 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 – 2233T.

Weld joint # 082 located on Bike Path, BK004A8 – 022. Welder is identified as 040723. ZPMC Quality Control

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(QC) Inspector is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2233 – Tc – P4 – F.

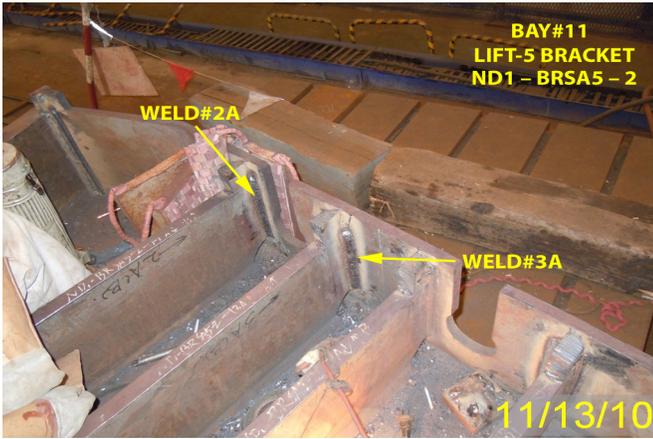
**Plug Welding by FCAW:**

Weld joint # 13 located on Bike Path BK004A2 – 020. Welder is identified as 205649. 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 – 2 – PLUG.

**Plug Welding by Shielded Metal Arc Welding (SMAW):**

Weld joint # 20 located on Bike Path BK004A2 – 020. Welder is identified as 205649. ZPMC Quality Control (QC) Inspector is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2112 – PLUG.

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 Thomas Ho- 15002048250, 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