

**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-008930**Date Inspected:** 14-Sep-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	Xu Xian Ping		
<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:** OBG & TOWER Components**Summary of Items Observed:**

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

**BAY 1**

This QA Inspector observed the following work in progress:

FCAW process welding of weld joint #003 located on Counter Weight CW002B – PP104. Welder is identified as 251246. ZPMC QC is identified as Tian Lei. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U4b – F – 1.

SAW process welding of weld joint #004 located on Cross Beam CB202B – 015. Welder is identified as 215548. ZPMC QC is identified as Tian Lei. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2221 – B – L2c – S – 2.

FCAW process welding of weld joint #002 located on Counter Weight CW002B – PP098. Welder is identified as 054460. ZPMC QC is identified as Tian Lei. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U4b – F – 1.

FCAW process welding of weld joint #003 located on Counter Weight CW002B – PP096. Welder is identified as

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059450. ZPMC QC is identified as Tian Lei. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U4b – F – 1.

FCAW process welding of weld joint #001 located on Counter Weight CW002B – PP068. Welder is identified as 219189. ZPMC QC is identified as Tian Lei. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2133.

### BAY 2

This QA Inspector observed the following work in progress:

FCAW process welding of weld joint #025 located on Floor Beam FB3091 – 001. Welder is identified as 045209. ZPMC QC is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – 3.

FCAW process welding of weld joint #047 located on Floor Beam FB3012 – 002. Welder is identified as 045203. ZPMC QC is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – 3.

FCAW process welding of weld joint #029 located on Floor Beam FB3091 – 001. Welder is identified as 045209. ZPMC QC is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2133.

FCAW process welding of weld joint #038 located on Floor Beam FB3012 – 002. Welder is identified as 045203. ZPMC QC is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2133.

### BAY 3

This QA Inspector observed the following work in progress:

FCAW process welding of weld joint #126 located on Floor Beam FB023 – 010. Welder is identified as 051356. ZPMC QC is identified as Guo Yuan Ting. The welding variables recorded by QC appeared to comply with the WPS – 345 – FCAW – 2G (2F) – FCM - Repair.

SMAW process Tack welding of weld joint #011 located on Longitudinal Diaphragm LD001 – 043 . Welder is identified as 057795. ZPMC QC is identified as Guo Yuan Ting. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2112.

### BAY 5

This QA Inspector observed the following work in progress:

FCAW process welding of weld joint #001 located on Traveler Rail Bracket TR1A – PP087. Welder is identified

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as 215185. ZPMC QC is identified as Xu Hong Min. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U4c – F.

FCAW process welding of weld joint #046 located on Bike Path BK001 – 029. Welder is identified as 205390. ZPMC QC is identified as Wang Liang. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2233 – Tc – U4c – F.

FCAW process welding of weld joint #009 located on Traveler Rail Bracket TR1E – PP088. Welder is identified as 215009. ZPMC QC is identified as Xu Hong Min. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U4c – F.

FCAW process welding of weld joint #011 located on Bike Path BK001 – 027. Welder is identified as 053742. ZPMC QC is identified as Wang Liang. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2233 – Tc – U4c – F.

FCAW process welding of weld joint #004 located on Traveler Rail 10TR3 – 034. Welder is identified as 217185. ZPMC QC is identified as Xu Hong Min. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – B – U2 – F.

FCAW process welding of weld joint #046 located on Bike Path BK001 – 026. Welder is identified as 204342. ZPMC QC is identified as Wang Liang. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2233 – Tc – U4c – F.

FCAW process welding of weld joint #003 located on Traveler Rail Bracket TR5C – PP094. Welder is identified as 250896. ZPMC QC is identified as Xu Hong Min. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U4c – F.

FCAW process welding of weld joint #003 located on Bike Path BK001 – 028. Welder is identified as 204342. ZPMC QC is identified as Wang Liang. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – Tc – U4c – F – 1.

BAY 6

### Magnetic Particle Testing

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 members are identified as OBG & TOWER Components. The weld designations reviewed are as follows:

OBG

1. DP3071 – 001 – 001 ~ 006; 034; 035 - Green Tag # 10640

a. SA6017 – 001 – 003; 004

WEST TOWER DIAGPHRAM

139 M & 131 M DIAGPHRAM – STEP PLATE

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1. WSD1 – DPSA4 – 13B/B – 3
  2. WSD1 – DPSA4 – 11B/B – 3
- 139 M & 131 M DIAGPHRAM – SUB ASSEMBLIES
1. WSD1 – DPSA4 – 11B/B – 20~25; 04; 05; 08; 09; 12; 13; 16; 17
  2. WSD1 – DPSA4 – 13B/B – 20~25; 04~07; 12; 13; 16; 17

This QA Inspector observed the following work in progress:

## TOWER

SMAW process welding of weld joint #9B located on WD1 – A305 – 77M – 3. Welder is identified as 053753. ZPMC QC is identified as Zhang Bao Bo. The welding variables recorded by QC appeared to comply with the WPS – 345 – SMAW – 2G (2F) FCM – Repair.

SMAW process welding of weld joint #2A located on WD1 – A305 – 65M – 3. Welder is identified as 049769. ZPMC QC is identified as Zhang Bao Bo. The welding variables recorded by QC appeared to comply with the WPS – 485 – SMAW – 2G (2F) FCM – Repair – 1.

## Cross Beam - 9

This QA Inspector observed the following work in progress:

SMAW process welding of weld joint #164 located on Cross Beam CB202G – 023. Welder is identified as 070007. ZPMC QC is identified as Meng Lin Nan. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2113.

FCAW process welding of weld joint #160 located on Cross Beam CB202G – 022. Welder is identified as 220688. ZPMC QC is identified as Meng Lin Nan. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

FCAW process welding of weld joint #018 located on Cross Beam CB202G – 024. Welder is identified as 048625. ZPMC QC is identified as Meng Lin Nan. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2133.

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 Eric Tsang - 15000422372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Kumar,Sandeep	Quality Assurance Inspector
<b>Reviewed By:</b>	Prue,Erik	QA Reviewer

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