

**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-027192**Date Inspected:** 22-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**CWI Name:** Wai Tao**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:** OBG**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector R. Hernandez was present during the time noted above and conducted observations relative to the work being performed.

The QA Inspector randomly observed the following work in progress:

**Bay Number 1**

FCAW welding of fillet welds located on Barrier Rails components identified as E2-SB1-055 weld number(s) 026~031, 057~062, 088~093, 106, 108, 122, & 124, 132~167, & 168~170. Welder is identified as welder no. 045227. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2132-3 & WPS-B-T-2133.

**Bay Number 2**

FCAW welding of fillet welds located on Barrier Rails components identified as E2-SB1-030 weld number(s) 026~031, 057~062, 088~093, 106, 108, 122, & 124, 132~167, & 168~170. Welder is identified as welder no. 058245. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2132-3 & WPS-B-T-2133.

FCAW welding of complete joint penetration weld joint(s) located on lift 14 OBG sub assembly identified as SA3410-001 weld number(s) 031, 032, 035, & 028. Welder is identified as welder no. 045276. The welding

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variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s)  
WPS-B-T-2232-TC-U4b-F.

FCAW welding of complete joint penetration weld joint(s) located on lift 14 OBG floor beam identified as FB3328-001 weld number(s) 064, 065, 061, & 067. Welder is identified as welder no. 045280. The welding variables recorded by ZPMC QC identified as Wai Tao. appeared to comply with applicable WPS(s)  
WPS-B-T-2232-TC-U4b-F.

ZPMC personnel heat straightening Orthotropic Box Girder (OBG) floor beam assembly member identified as FB3321-001 for weld(s) 011 & 012. Distortion appeared to be caused by welding. ZPMC Quality Control (QC) inspector identified as Mr. Wai Tao was present to monitor the heat straightening process. The heat straightening appeared to comply with Heat Straightening Report (HSR) no. HSR(B)-428.

Performed verification VT for the component(s) and corresponding welds for component on OBG sub assembly (KP) plate listed as KP3018-001 for the following designated weld number(s): 002, 004, & 005. This QA inspector signed green tag #15122.

Performed verification VT for the component(s) and corresponding welds for component on OBG sub assembly (KP) plate listed as KP3017A-001 for the following designated weld number(s): 002, 004, & 006. This QA inspector signed green tag #15123.

Performed verification VT for the component(s) and corresponding welds for component on OBG sub assembly (KP) plate listed as KP3017B-001 for the following designated weld number(s): 007 & 008. This QA inspector signed green tag #15124.

Performed verification VT for the component(s) and corresponding welds for component on OBG sub assembly (KP) plate listed as KP3016-001 for the following designated weld number(s): 001, 003, & 005. This QA inspector signed green tag #15128.

Performed verification VT for the component(s) and corresponding welds for component on OBG sub assembly (KP) plate listed as KP3015-001 for the following designated weld number(s): 001, 002, 004, & 006. This QA inspector signed green tag #15127.

Performed verification VT for the component(s) and corresponding welds for component on OBG sub assembly (KP) plate listed as KP3014-001 for the following designated weld number(s): 001 & 002. This QA inspector signed green tag #15126.

Performed verification VT for the component(s) and corresponding welds for component on OBG sub assembly (KP) plate listed as KP3012-001 for the following designated weld number(s): 001 & 002. This QA inspector signed green tag #15125.

Bay Number 3

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC

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Quality Control personnel, by the lot method testing procedure. This QA Inspector generated an MT report for this date. All components were as listed on NWIT notification no. 07071 & 07077. The member(s) is/are identified as OBG Floor Beams. The weld designations reviewed are as follows:

1. FB3263-002-7, 8, 28, 21, 22, 58, 59, 10, 52, 53, 48, 49, 46, 47, 50,15~20, 64~69.
2. FB3265-001-023~039, 083~091.

FCAW repair welding of complete joint penetration root pass weld joint(s) located on lift 14 OBG floor beam assembly identified as FB3266-001 weld number(s) 077 per B-WR-16129. Welder is identified as welder no. 055564. The welding variables recorded by ZPMC QC identified as Wait Tao appeared to comply with applicable WPS(s) WPS-345-FCAW-345F2-REPAIR-1.

FCAW repair welding of complete joint penetration root pass weld joint(s) located on lift 14 OBG floor beam assembly identified as FB3266-001 weld number(s) 027 per B-WR-16119. Welder is identified as welder no. 044830. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-345-FCAW-345F2-REPAIR-1.

FCAW repair welding of complete joint penetration root pass weld joint(s) located on lift 14 OBG floor beam assembly identified as FB3266-001 weld number(s) 256 per B-WR-16120. Welder is identified as welder no. 050242. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-345-FCAW-345F2-REPAIR-1.

FCAW repair welding of complete joint penetration root pass weld joint(s) located on lift 14 OBG floor beam assembly identified as FB3266-001 weld number(s) 272 per B-WR-16121. Welder is identified as welder no. 052696. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-345-FCAW-345F2-REPAIR-1.

Performed verification VT for the component(s) and corresponding welds for component on OBG floor beam assembly plate listed as FB3283-001 for the following designated weld number(s): 001~016. This QA inspector signed green tag #15109.

Performed verification VT for the component(s) and corresponding welds for component on OBG floor beam assembly plate listed as FB3282-001 for the following designated weld number(s): 001~016. This QA inspector signed green tag #15108.

Performed verification VT for the component(s) and corresponding welds for component on OBG floor beam assembly plate listed as FB3293-001 for the following designated weld number(s): 001~046, 051~053, 58, 59, 059~062. This QA inspector signed green tag #14822.

Performed verification VT for the component(s) and corresponding welds for component on OBG floor beam assembly plate listed as FB3285-001 for the following designated weld number(s): 001~030, 035, 036, 041~043, & 048. This QA inspector signed green tag #14821.

Performed verification VT for the component(s) and corresponding welds for component on OBG floor beam

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assembly plate listed as FB3261-001 for the following designated weld number(s): 001~003, 008~011, 014~017, 020~023, 026~065, 068~107, & 124~127. This QA inspector signed green tag #14830

Bay Number 4

No contract work being performed in this today.

Unless otherwise noted above all items observed on this day appeared to be in general compliance with the applicable contract documents

**Summary of Conversations:**

Pertinent conversations are included in the body of the report.

**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 1500-0042-02372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Hernandez,Rene	Quality Assurance Inspector
<b>Reviewed By:</b>	Levell,Bill	QA Reviewer

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