

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

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-022983**Date Inspected:** 20-Apr-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**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 Components**Summary of Items Observed:**

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

**Bay 10**

This QA Inspector randomly observed the following work in progress in the Bay 10:

Fit-up and SMAW tack welding of weld joint BK014A2-001-017 located on PCMK OBG bike path. Welder was identified as 052930. QC was identified as ZPMC CWI Shi Yu (QC1). Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was ZPMC QC Sun Zi Wang (QCA1), who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-P-2112 as verbally identified by QCA1.

SMAW welding of weld joint X3305K-022-001 located on PCMK OBG splice plate assembly. Welder was identified as 057220. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-P-2213-TC-U4b as verbally identified by QCA1.

**Bay 11**

This QA Inspector randomly observed the following work in progress in the Bay 11:

SAW welding of weld joint NSD1-TBSA7-3-19 located on PCMK north tower, lift 7. Welder was identified as

---

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

---

041716. QC was identified as QC1. Weld variables recorded by QC1 appeared to comply with WPS-B-T-2221-TC-U4c-S as verbally identified by QC1.

SMAW welding of weld joint SSD1-DPSA6-5-11 located on PCMK south tower, lift 6. Welder was identified as 041271. QC was identified as QC1. Weld variables recorded by QC1 appeared to comply with WPS-B-P-2312-TC-P4 as verbally identified by QC1.

SMAW repair welding of weld joint 36TR1-001-009 located on PCMK OBG traveler rail. Welder was identified as 044551. QC was identified as QC1. Weld variables recorded by QC1 appeared to comply with WPS-345-SMAW-2G(2F)-repair as displayed on ZPMC Weld Repair Report B-WR20771 as presented to this QA Inspector and verbally identified by QC1.

SMAW repair welding of weld joint 30TR1-001-009 located on PCMK OBG traveler rail. Welder was identified as 044541. QC was identified as QC1. Weld variables recorded by QC1 appeared to comply with WPS-345-SMAW-2G(2F)-repair as displayed on ZPMC Weld Repair Report B-WR20773 as presented to this QA Inspector and verbally identified by QC1.

### OBG Trial Assembly Area

This QA Inspector randomly observed the following work in progress in the OBG Trial Assembly Area:

FCAW welding of weld joint SEG3007T-101 (inner side) located inside PCMK OBG 12CE at the transverse joint to 13AE, north (crossbeam) side, longitudinal diaphragm to bottom plate, holdback weld. Welder was identified as 040367. QC was identified as ABF CWI Sheng Qing Quan (QC2). Weld variables recorded by QC2 appeared to comply with WPS-B-T-2232-ESAB as verbally identified by QC2.

FCAW welding of weld joint SEG3007U-101 (outer side) located inside PCMK OBG 13AE at the transverse joint to 12CE, south (bikepath) side, longitudinal diaphragm to bottom plate, holdback weld. Welder was identified as 052763. QC was identified as QC2. Weld variables recorded by QC2 appeared to comply with WPS-B-T-2232-ESAB as verbally identified by QC2.

During random observation of the welding operations inside PCMK OBG Segment 13AE at the transverse joint to 12CE, south (bikepath) side, longitudinal diaphragm to bottom plate area, several arc strikes were observed on outer side of the longitudinal diaphragm and west side of the floor beam at panel point 117.5. See photo below of several of the arc strikes. This QA Inspector clearly marked the visual indications in yellow paint with the notation 'Arc strikes', date, this QA Inspector's Caltrans lot number, and then informed QC2 of the arc strikes and marking. QC2 informed this QA Inspector that the arc strikes would be corrected in a manner compliant with the relevant contract documents.

SMAW welding of weld joints DP3033-013~018 located on PCMK OBG Segment 13AE, deck plate to deck plate I-rib holdback welds. Welder was identified as 040270. QC was identified as QC2. Weld variables recorded by QC2 appeared to comply with WPS-B-P-2114-FCM-1 as verbally identified by QC2.

SMAW welding of weld joints EP3001-013, 015, 017, 019 located on PCMK OBG Segment 13AE, deck plate to deck plate I-rib holdback welds. Welder was identified as 040378. QC was identified as QC2. Weld variables

---

---

# WELDING INSPECTION REPORT

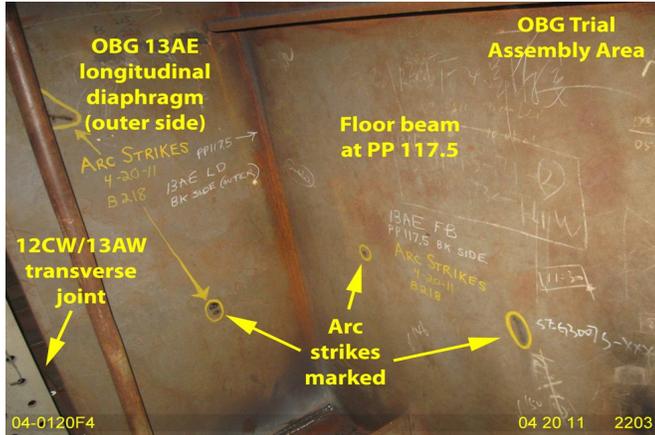
( Continued Page 3 of 3 )

---

---

recorded by QC2 appeared to comply with WPS-B-P-2114-FCM-1 as verbally identified by QC2.

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



## Summary of Conversations:

As noted above.

## 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 James Devey 15000026784, who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Goulet, George	Quality Assurance Inspector
<b>Reviewed By:</b>	Riley, Ken	QA Reviewer

---