

**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-015751**Date Inspected:** 17-Jul-2010**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:** Tower and 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 Bay 10:

SMAW welding of weld joint SSD1-TL5-1B/F-1B located on PCMK south tower, lift 5, skin A connection plate at skins A/E corner. Welder was identified as 500363. QC was identified at ZPMC CWI Yu Dong Ping (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was an unnamed ZPMC QC (QCA1), who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-3213-TC-U5b.

**Bay 11**

This QA Inspector randomly observed no apparent work being performed in Bay 11.

**OBG Trial Assembly Area**

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

SMAW welding of weld joint OBE9C-009 located outside PCMK 9DE/9EE, side plate to side plate south (bikepath) side, transverse joint. Welders were identified as 067656, 220067. QC was identified as ZPMC CWI An Qing Xiang (QC2). Welding variables recorded by QC2 appeared to comply with

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WPS-B-T-2214-TC-U2-FCM-1. Also at this location and appearing to be monitoring the welding operation were ABF Representatives Cao Hai Zhou and Wang Zhong Yuan.

SMAW welding of weld joint OBE9C-010 located outside PCMK 9DE/9EE, side plate to side plate south (bikepath) side, transverse joint. Welder was identified as 037996. QC was identified as QC2. Welding variables recorded by QC2 appeared to comply with WPS-B-T-2214-TC-U2-FCM-1. Also at this location and appearing to be monitoring the welding operation were ABF Representatives Cao Hai Zhou and Wang Zhong Yuan.

The above noted welders at OBE9C-009, 010 also performed SMAW welding of base metal repairs caused by the removal of temporary alignment plates adjacent the transverse weld joints. See photos below. QC was identified as QC2. Welding variables recorded by QC2 appeared to comply with WPS-345-SMAW-4G(4F)-FCM-repair as listed on B-CWR1679, dated 5/25/10, presented to this QA Inspector by QC2. QC2 assured this QA Inspector that these areas of repair would be ground and magnetic particle tested. Also at this location and appearing to be monitoring the welding operation were ABF Representatives Cao Hai Zhou and Wang Zhong Yuan.

FCAW welding of weld joints EP165-001-009, 010, 011, 012 located inside PCMK 9DE and EP166-001-005, 006, 007, 008 located on 9EE, both I-stiffener to edge plate holdback welds at the 9DE/9EE transverse joint, south (bikepath) side. QC was identified as QC2. Welding variables recorded by QC2 appeared to comply with WPS-B-T-2132 and WPS-B-T-2134. Also at this location and appearing to be monitoring the welding operation ABF Representatives Cao Hai Zhou and Wang Zhong Yuan.

FCAW welding of temporary alignment plates located outside PCMK 9DE/9EE, at bottom plate to side plate north (crossbeam) side weld joint. Welder was identified as 051246. QC was identified as QC2. Also at this location and appearing to be monitoring the welding operation were ABF Representatives Cao Hai Zhou and Wang Zhong Yuan.

### Heavy Dock

This QA Inspector randomly observed the following work being performed on the Heavy Dock:

This QA Inspector observed no apparent work was being performed on the Heavy Dock. All 4 tower lifts 2 were erect with all 4 tower lifts 3 attached above, respectively. No ZPMC QC nor ABF representative presence was observed anywhere on the Heavy Dock. A ZPMC drilling crew was exiting the lifts 2/3 worker access tower elevator and informed this QA Inspector that they were finished for the night. Crossbeams 7, 8, 9, and 10 were still on the ship moored to the end of the Heavy Dock, as before. OBG segment 7E was positioned on deck, forward of the crossbeam sections with segment 7W positioned on top of 7E, also as before.

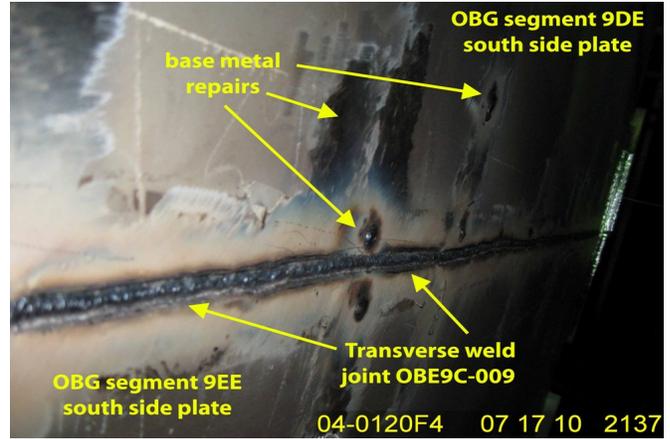
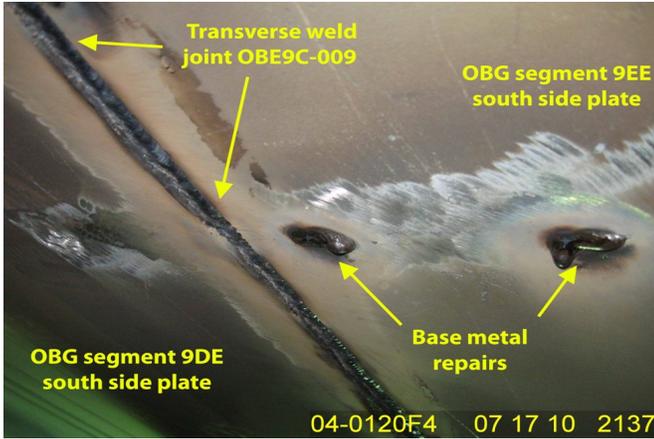
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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## 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 Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Goulet, George

Quality Assurance Inspector

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**Reviewed By:** Dawson, Paul

QA Reviewer