

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-014960**Date Inspected:** 29-May-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhou Cheng**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:** Orthotropic Box Girder (OBG) components**Summary of Items Observed:**

On this day CALTRANS Office of Structural Materials (OSM) Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

**OBG ASSEMBLY BAY 14**

This QA observed ZPMC qualified welding personnel identified as 037748 perform Flux Cored Arc Welding (FCAW) on OBG segment 12CW. The weld joint is identified as SEG3006B-PP117-134. ZPMC QC identified as Mr. Zhong Yang Gang was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2233-TC-U4b-F.

This QA observed ZPMC qualified welding personnel identified as 037840 perform Flux Cored Arc Welding (FCAW) on OBG segment 12CW. The weld joint is identified as SEG3006B-PP117-135. ZPMC QC identified as Mr. Zhong Yang Gang was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2233-TC-U4b-F.

This QA observed ZPMC qualified welding personnel identified as 067949 perform Shielded Metal Arc Welding (SMAW) on OBG segment 12BW. The weld joint is identified as SEG3005L-001. ZPMC QC identified as Mr. Zhong Yang Gang was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-P-2214-B-U2-FCM-1.

**OBG ASSEMBLY BAY 19**

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## WELDING INSPECTION REPORT

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This QA observed ZPMC qualified welding personnel identified as 062757 perform partial base metal restoration of mislocated suspender rod holes on suspender bracket identified as SB48E using the Shielded Metal Arc Welding (SMAW) process. This QA observed that the contractor did not appear to be following the approved Critical Weld Repair (CWR) identified as B-CWR1572 presented by QC for the repair of mislocated holes on SB48E and SB48W. The above mentioned CWR specified elongating the holes and attaching steel backing prior to welding longitudinal stringer weld passes. This QA observed the contractors welding personnel buttering (build up with weld) the inside of the suspender rod holes without following the hole elongation procedure as specified in the CWR. This technique also appeared to have been used on suspender brackets SB48W and SB54W. This QA attempted to photograph the repairs being performed. Due to camera malfunction, this QA informed Caltrans (CT) QA inspector, Mr. Shailesh Wadkar of this issue. Mr. Wadkar photo documented the partially repaired holes on all three suspender brackets and generated an incident report for this issue.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

### **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

### **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>	Hall,Steven	Quality Assurance Inspector
<b>Reviewed By:</b>	Peterson,Art	QA Reviewer

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