

**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 #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021080**Date Inspected:** 26-Feb-2011**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) Chanxing Island**Location:** Shanghai, China

<b>CWI Name:</b>	Mr.			<b>CWI Present:</b>	Yes	No	
<b>Inspected CWI report:</b>	Yes	No	N/A	<b>Rod Oven in Use:</b>	Yes	No	N/A
<b>Electrode to specification:</b>	Yes	No	N/A	<b>Weld Procedures Followed:</b>	Yes	No	N/A
<b>Qualified Welders:</b>	Yes	No	N/A	<b>Verified Joint Fit-up:</b>	Yes	No	N/A
<b>Approved Drawings:</b>	Yes	No	N/A	<b>Approved WPS:</b>	Yes	No	N/A
				<b>Delayed / Cancelled:</b>	Yes	No	N/A
<b>Bridge No:</b>	34-0006			<b>Component:</b>	OBG Segment		

**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance (QA) Inspector Santhosh Ramakrishna Pillai was present during the times noted above for observations relative to fabrication work of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China.

This QA inspector randomly observed the following work:

## 1. INPROCESS:

Orthotropic Box Girder (OBG) at Trial Assembly Area:

ZPMC welding personnel performing Flux Core Arc Welding of Fillet welds joining the floor beam to I-stiffener weld joint located on 12AE+CB-17 at Panel Point (PP-111). The weld is designated as FB3049-017-041. The welder is identified as 040367. ZPMC QC Mr. LI YANG was onsite monitoring the welding variables. The inprocess Flux Core Arc Welding appears to be progressing in compliance with WPS-B-T-2132-ESAB.

ZPMC welding personnel performing Flux Core Arc Welding of Fillet welds joining the side plate to I-stiffener weld joint located on 12AE+CB-17 at Panel Point (PP-112). The weld is designated as SP3032-017-014. The welder is identified as 047353. ZPMC QC Mr. LI YANG was onsite monitoring the welding variables. The inprocess Flux Core Arc Welding appears to be progressing in compliance with WPS-B-T-2132-ESAB.

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ZPMC welding personnel performing Shielded Metal Arc Welding of Complete Joint Penetration welds joining the partial diaphragm weld joint located on 12AE at Panel Point (PP-112). The weld is designated as SEG3001AG-174. The welder is identified as 044504. ZPMC QC Mr. LI YANG was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-B-P-2212-B-U2-FCM-1.

ZPMC welding personnel performing Shielded Metal Arc Welding of Complete Joint Penetration welds joining the partial diaphragm weld joint located on 12AE at Panel Point (PP-111). The weld is designated as SEG3001AG-100. The welder is identified as 044504. ZPMC QC Mr. LI YANG was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-B-P-2212-B-U2-FCM-1.

ZPMC welding personnel performing Shielded Metal Arc Welding of Fillet welds joining the partial diaphragm weld joint located on 12AE at Panel Point (PP-111). The weld is designated as SEG3001AG-102. The welder is identified as 066459. ZPMC QC Mr. LI YANG was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-B-P-2113-FCM-1.

## 2. NDT:

### Ultrasonic Testing (UT):

UT carried out as per the ZPMC submitted Notification No 08401.

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10 % of CJP welds that has been previously tested and accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. The members are identified as Tee joint between vertical shear plate to bottom plate weld joint located on 14W at counter weight side. This QA inspector generated a (UT) (TL-6027) report for this date. The QA Inspector generated a TL-6027 UT report on this date. Weld identification numbers were SEG3020BB-010.

### Ultrasonic Testing (UT) (A, B, C and D-Scan):

UT carried out as per the ABF submitted Notification No 02252011-1.

This QA Inspector performed Ultrasonic testing (UT) 10 % of the area that has been previously tested and accepted by ABF Quality control personnel. This QA inspector generated a UT (TL-6027) report on this date. The members are identified as corner joint between edge plate to side plate hold back weld joint located on 12BE+12CE at cross beam side. According to rejection criteria of "D" Scan procedure that Caltrans QA did not find any Rejected indication at scanning area. The Weld Designation is as follows: CA3002-005 & CA3004-001.

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

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**Summary of Conversations:**

No relevant conversations were reported on this date.

**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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<b>Inspected By:</b>	Pillai,Santosh	Quality Assurance Inspector
<b>Reviewed By:</b>	Miller,Mark	QA Reviewer

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