

**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-011843**Date Inspected:** 06-Feb-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, China

<b>CWI Name:</b>	Li Yang and Wu Zhi Cheng	<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 Trail Assembly	

**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

Segment 7BW to 7CW

This QA Inspector performed Root Gap and Offset measurement for the Segment 7BW to 7CW (Shop Segment Splice) between PP 52 and PP 53.

Segment 7AW

This QA Inspector observed ZPMC welding personnel performing welding by Flux Cored Arc Welding (FCAW) for Bottom Panel T-Rib hold back area. The weld joints are identified as BP089-001-025, BP089-001-026, BP089-001-027, BP089-001-028, BP089-001-029 and BP089-001-030. The welder is identified as 050316. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2132. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

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### Segment 7AW

This QA Inspector observed ZPMC welding personnel performing welding by Flux Cored Arc Welding (FCAW) for Bottom Panel T-Rib hold back area. The weld joints are identified as BP035-001-025, BP035-001-026, BP035-001-027, BP035-001-028, BP035-001-029 and BP035-001-030. The welder is identified as 045280. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2132. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

### Segment 7AW

This QA Inspector observed ZPMC welding personnel performing welding by Flux Cored Arc Welding (FCAW) for Bottom Panel T-Rib hold back area. The weld joints are identified as BP143-001-025, BP143-001-026, BP143-001-027, BP143-001-028, BP143-001-029 and BP143-001-030. The welder is identified as 045280. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2132. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

### Segment 7AW

This QA Inspector observed ZPMC welding personnel performing welding by Flux Cored Arc Welding (FCAW) for Side Panel Cross Beam side T-Rib hold back area. The weld joints are identified as SP 518-001-025, SP 518-001-026, SP 518-001-027, SP 518-001-028 and SP 518-001-029. The welder is identified as 067275. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2132. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

### Segment 7AW

This QA Inspector observed ZPMC welding personnel performing welding by Flux Cored Arc Welding (FCAW) for Side Panel Cross Beam side T-Rib hold back area. The weld joints are identified as SP 478-001-025, SP 478-001-026, SP 478-001-027, SP 478-001-028 and SP 478-001-029. The welder is identified as 066673. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2132. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

### Segment 7AW to 7BW

This QA Inspector observed ZPMC welding personnel performing welding by Flux Cored Arc Welding (FCAW) for Deck Panel I- Stiffeners Cross Beam side. The weld joints are identified as DP 647-001-019. The welder is identified as 066743. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2133T. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

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### Segment 7AW to 7BW

This QA Inspector observed ZPMC welding personnel performing welding by Flux Cored Arc Welding (FCAW) for Deck Panel I- Stiffeners Cross Beam side. The weld joints are identified as DP 647-001-020. The welder is identified as 066743. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2133T. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

### Segment 7AW to 7BW

This QA Inspector observed ZPMC welding personnel performing welding by Flux Cored Arc Welding (FCAW) for Deck Panel I- Stiffeners Cross Beam side. The weld joints are identified as DP 647-001-021. The welder is identified as 066743. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2133T. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

### Lift 6 East

This QA Inspector observed ZPMC welding personnel performing welding by Shielded Metal Arc Welding (SMAW) for weld connecting Deck Panel to Edge Panel Bike Path side. The weld joints are identified as CA 026-002. The welder is identified as 058087. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-2G (2F)-FCM-Repair-1. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS. The welding was been performed against the Critical Welding Repair report B-CWR 1092 Rev 1.

### Lift 6 East

This QA Inspector observed ZPMC welding personnel performing welding by Shielded Metal Arc Welding (SMAW) for weld connecting Deck Panel to Edge Panel Bike Path side. The weld joints are identified as CA 026-004. The welders are identified as 049339 and 048047. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-2G (2F)-FCM-Repair-1. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS. The welding was been performed against the Critical Welding Repair report B-CWR 1092 Rev 1.

### Lift 6 East

This QA Inspector observed ZPMC welding personnel performing welding by Shielded Metal Arc Welding (SMAW) for weld connecting Deck Panel to Edge Panel Bike Path side. The weld joints are identified as CA 026-006. The welder is identified as 216086. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-2G (2F)-FCM-Repair-1. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS. The welding was been performed against the Critical Welding Repair report B-CWR 1092 Rev 1.

### Segment 7BW to 7CW

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This QA Inspector observed ZPMC personnel's at Segment 7BW to 7CW between Panel Point (PP) 52 and PP 53 segment transverse splice fit-up is in progress.

Segment 7BW to 7CW

This QA Inspector observed ZPMC personnel's at Segment 7BW to 7CW between Panel Point (PP) 52 and PP 53 Bottom Panel T-Rib to T-Rib web to web welding is in progress.

Segment 7AW to 7BW

This QA Inspector observed ZPMC personnel's at Segment 7AW to 7BW between PP 49 to PP 50 bottom panel, side panel cross beam side hold back welded area grinding is in progress.

Segment 7AW to 7BW

This QA Inspector observed ZPMC personnel's at Segment 7AW to 7BW at W3 and W4 location welded area flush grinding is in progress to facilitate grinding work short Longitudinal Diaphragm removed from location.

Segment 6CW

This QA Inspector observed ZPMC personnel's at Segment 6CW between PP 44 and PP 45 at location 44.25, PP 44.5 and PP 44.75 cross beam side edge panel T-Stiffener vertical one welding preparation is in progress.

Segment 6AW to 6BW

This QA Inspector observed ZPMC personnel's at Segment 6AW to 6BW between PP 40 to PP 41 cross beam side Longitudinal Diaphragm at W4 location flange weld to floor beam Ultrasonic Test (UT) rejected at two location marking been performed for excavation.

Segment 6BE

This QA Inspector observed ZPMC personnel's at Segment 6BE at PP 41 at E4 location Cope Hole grinding is in progress.

Segment 6AE to 6BE

This QA Inspector observed ZPMC personnel's at Segment 6AE to 6BE at PP 40 and PP 41 T-Rib hold back area Magnetic Particle Test (MT) been performed by ZPMC QC.

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

**Summary of Conversations:**

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No relevant conversations.

## **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 T Sang 1500-0042-2372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Math,Manjunath	Quality Assurance Inspector
<b>Reviewed By:</b>	Miller,Mark	QA Reviewer

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