

**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-014843**Date Inspected:** 13-Jun-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**CWI Name:****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 Trial 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 8AE to 8BE (U-Ribs)

This Quality Assurance (QA) Inspector witnessed final tension verification for U-Rib to U-Rib at Panel Point (PP) 64 and PP 65 for Segment 8AE to 8BE. Inspected on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00376 Dated June 13, 2010.

Bolt sizes used were M22 x 65 RC Set# DHGM220105 and final torque required was 380 N-m

Manual Torque wrench was been used with Sr. No. XQ2-675.

Note: U-Ribs numbering reference taken from Cross Beam as 1st U-Rib and Bike Path side as 39th U-Rib.

Segment 8BW to 8CW (Longitudinal Diaphragm) Joint Survey

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## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

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This QA Inspector performed Joint Inspection with ZPMC Survey Team and ABF Survey Team for the Longitudinal Diaphragm between Segment 8BW to 8CW (Shop Segment Splice) between Panel Point (PP) 67 and PP 68 North(Counter Weight Side) and South (Cross Beam side) side for Offset and Sweep. The offset was measured at 5 (five) different locations in which 2 (Two) locations were at Flange area and 3 (Three) locations were at Web area and Sweep was measured at 100 mm from both side from the Floor Beam and 800mm from both side of floor Beam and at Centre (Total 5 Locations). The measured readings were recorded on spread sheet, generated the report and submitted to the Task Leader and Engineer for review.

### Segment 8BW to 8CW (Skin Flatness) Joint Survey

This QA Inspector performed Joint Inspection with ABF Survey Team for the Skin Flatness between Segment 8BW to 8CW (Shop Segment Splice) between Panel Point (PP) 67 and PP 68. Cross Beam side at B3 and B4 Locations at weld connecting Bottom Panel to Side Panel with 5000mm String line for overall deformation and 600mm and 630 mm Straight Edge for localized deformation after adjustment of the Skin Flatness which was out of tolerance when measured on April 24, 2010.

The measured readings were recorded on spread sheet, generated the report and submitted to the Task Leader and Engineer for review.

### Segment 8CW to 9AW (Skin Flatness) Joint Survey

This QA Inspector performed Joint Inspection with ABF Survey Team for the Skin Flatness between Segment 8CW to 9AW (Shop Segment Splice) between Panel Point (PP) 71 and PP 72. Counter Weight side at B1 and B2 Locations at weld connecting Bottom Panel to Side Panel with 5000mm String line for overall deformation and 600mm and 630 mm Straight Edge for localized deformation after adjustment of the Skin Flatness which was out of tolerance when measured on June 05, 2010.

The measured readings were recorded on spread sheet, generated the report and submitted to the Task Leader and Engineer for review.

### Suspender Bracket

This QA Inspector performed Dimension Control Inspection for the Suspender Brackets (SB) Installed at Counter Weight side for the following Segments and Suspender Brackets. The inspection was performed as per the Inspection Notification No. 00009 Dated June 13, 2010 as requested by ZPMC.

### Suspender Bracket SB48E for Segment 7AE

The faying surface between the Deck Panel Corner Assembly to the Suspender Bracket measured and observed within the tolerance i.e., less than 2mm.

### Segment 7AW, 7BW, 7CW, 7DW and 7EW (Side Panel to Corner Assembly)

This QA Inspector performed Dimension Control Inspection the Side Panel to Corner Assembly Longitudinal Weld for the Skin Flatness after Heat Straightening from Panel Point (PP) 48 to PP 60 Cross Beam and Counter

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## WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

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Weight Side. The measured readings at one location was recorded more than acceptable, marked the area and informed the ZPMC and ABF QC to rectify those area and re-offer for inspection and passed the information to the Lead and Engineer.

Segment 7AW, 7BW, 7CW, 7DW and 7EW (Side Panel to Corner Assembly)

This QA Inspector performed Dimension Control Inspection the Deck Panel to Corner Assembly Longitudinal Weld for the Skin Flatness after Heat Straightening from Panel Point (PP) 48 to PP 60 Cross Beam and Counter Weight Side. The measured readings at few location was recorded more than acceptable, marked the area and informed the ZPMC and ABF QC to rectify those area and re-offer for inspection and passed the information to the Lead and Engineer.

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

**Summary of Conversations:**

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>	Carreon,Albert	QA Reviewer

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