

**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-013141**Date Inspected:** 21-Mar-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 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 6AE (FL3 to Bottom Plate)

This Quality Assurance (QA) Inspector witnessed final tension verification for Bolts connecting FL3 flange to the Bottom Plate at Panel Point (PP) 38, PP 39 and PP 40 for Segment 6AE. Inspected bolts tension on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00294 Dated March 21, 2010.

Bolt sizes used were M24 x 60 RC Set# DHGM240014 and final torque required was 567 N-m and

Bolt sizes used were M24 x 65 RC Set# DHGM240013 and final torque required was 540 N-m

Manual Torque wrench was been used with Sr. No. XQ2-759.

Note: 2 Column and 4 rows bolts not installed at FL3 flange to Bottom Panel next to Cross Beam 5 faying surface

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at PP 38, PP 39 and PP 40 due to transportation purpose.

Please refer the attached pictures with Tag No. 1 for more comprehensive details.

Segment 6CE (FL3 to Bottom Plate)

This Quality Assurance (QA) Inspector witnessed final tension verification for Bolts connecting FL3 flange to the Bottom Plate at Panel Point (PP) 44, PP 45 and PP 46 for Segment 6CE. Inspected bolts tension on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00294 Dated March 21, 2010.

Bolt sizes used were M24 x 60 RC Set# DHGM240014 and final torque required was 567 N-m and

Bolt sizes used were M24 x 65 RC Set# DHGM240009 and final torque required was 567 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-759.

Note: 2 Column and 4 rows bolts not installed at FL3 flange to Bottom Panel next to Cross Beam 5 faying surface at PP 38, PP 39 and PP 40 due to transportation purpose.

Segment 7BE to 7CE (U-Ribs) Joint Survey

This QA Inspector with Mr. Manikandan (Caltrans QA) performed three party Joint Inspection along with ZPMC Survey Team and ABF Survey Team for the U-Ribs to U-Ribs (Total 39 nos.) for Segment 7BE to 7CE (Shop Segment Splice) between Panel Point (PP) 52 and PP 53 North and South side. The measured readings were fed in spread sheet and submitted to the Task Leader and Engineer for review.

Segment 7AE to 7BE (Skin Flatness) Joint Survey

This QA Inspector with Mr. Manikandan (Caltrans QA) performed three party Joint Inspection along with ZPMC Survey Team and ABF Survey Team for the Skin Flatness at B1, B2, B3 and B3 at E4 and E3 location and T1 and T2 at E2 and E5 location for Segment 7AE to 7BE (Shop Segment Splice) between Panel Point (PP) 49 and PP 50 North and South side. The measured readings were fed in spread sheet and submitted to the Task Leader and Engineer for review.

Segment 6CE (FL3 to Bottom Plate)

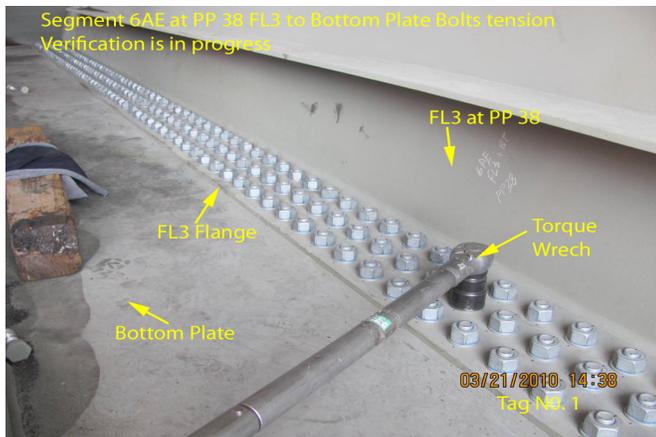
This Quality Assurance (QA) Inspector witnessed final tension verification for Bolts connecting FL3 flange to the Bottom Plate at Panel Point (PP) 44, PP 45 and PP 46 for Segment 6CE. ZPMC called for Snug Tight inspection during the Inspection it was observed gap between the Faying surface of Bottom Plate to the FL3 Flange reason been butt weld of the Bottom Panel which is not ground flush asked the ZPMC QC and ABF QC to ground flush the weld as done at PP 44 and PP 45 and then install bolt and snug tight. Inspection was carried out at that location and no gap was observed.

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Please refer the attached pictures with Tag No. 2 for more comprehensive details.

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.

**Inspected By:** Math,Manjunath

Quality Assurance Inspector

**Reviewed By:** Miller,Mark

QA Reviewer