

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-011711**Date Inspected:** 23-Jan-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:	Li Yang and Wu Zhi 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:	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 6CE (Side Panel T-Ribs)

This Quality Assurance (QA) Inspector witnessed final tension verification for Side Panel T-Ribs (Total 19 Nos.) Cross Beam side between Panel Point (PP) 45 and PP 45.5 for Segment 6CE. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00240 Dated January 23, 2010.

Bolt sizes used were M22 x 65 RC Set# DHGM220033 and final torque required was 470 N-m.

Manual Torque wrench was used with Sr. No. XQ2-762.

Note: Total 18th T-Ribs; 9th T-Rib from the Longitudinal Diaphragm not inspected as it exceeds the requirement of RFI 2004Ro. The offset measurements were performed from 1st T-Rib (Longitudinal Diaphragm) towards 18th T-Ribs Side Panel side and recorded offset as

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1st T-Rib: 3mm; 2nd T-Rib: 4mm; 3rd T-Rib: 3mm; 4th T-Rib: 3mm; 5th T-Rib: 2.7mm; 6th T-Rib: 3.5mm; 7th T-Rib: 3mm; 8th T-Rib: 3.6mm; 9th T-Rib: Not Offered ; 10th T-Rib: 3.1mm; 11th T-Rib: No T-Rib (Design) ; 12th T-Rib: 3.8mm; 13th T-Rib: 3mm; 14th T-Rib: 2.4mm; 15th T-Rib: 2.7 mm; 16th T-Rib: 3mm; 17th T-Rib: 3 mm; 18th T-Rib: 3mm and 19th T-Rib: 4.

Signed Off Green Tag's

This Quality Assurance (QA) Inspector witnessed final tension verification for following depicted locations. Inspected 10% on a random basis and found the tension to be in general compliance and thus signed off the Green Tags.

At Segment 6CE at Panel Point (PP) 44 to 44.5 for T-Stiffener (Interior South SP to CB Location) Except 1st Stiffener from Top Bolt Size used was M22 x 65 RC Set# DHGM220033 and final torque required was 470 N-m respectively and Green Tag No. 553.

At Segment 6BW at Panel Point (PP) 41 and PP 42 for Lower Chevron Brace (North) Bolt Size used was M22 x 70 RC Set# DHGM220020 and final torque required was 520 N-m respectively and Green Tag No. 555.

At Segment 6BW at Panel Point (PP) PP 42 North (East) for Lower Chevron Brace Tube location with 6mm thick shim Bolt Size used was M22 x 75 RC Set# DHGM220005 and final torque required was 473 N-m respectively and Green Tag No. 556.

At Segment 6BW at Panel Point (PP) 41(North) and PP 42 (North) for Lower Chevron Brace (I Beam Location) Bolt Size used was M22 x 80 RC Set# DHGM220012 and final torque required was 427 N-m respectively and Green Tag No. 557.

At Segment 6BW at Panel Point (PP) 41(North) and PP 42 (North) for Lower Chevron Brace Bolt Size used was M22 x 70 RC Set# DHGM220020 and final torque required was 520 N-m respectively and Green Tag No. 558.

Segment 7BE to 7CE

This QA Inspector performed Individual Inspection with Caltrans QA Manikandan for the U-Rib to U-Rib for Segment 7BE to 7CE (Shop Segment Splice) between Panel Point (PP) 52 and PP 53. Total 39 Nos. The measured readings were fed in spread sheet, generated the report and submitted to the Task Leader and Engineer for review.

Segment 5BE to 5CE

This QA Inspector performed Individual Inspection with Caltrans QA Manikandan for the Skin Flatness across Transverse Splice Joints at Location B1(Cross Beam Side Panel), B2(Bottom Panel), B3(Bottom Panel) and B4(Bike Path Side Panel) for Segment 5BW to 5CW between PP 34 and PP 35 confirming the reading taken by ABF against the RFI No. ABF-RFI-001869 Rev.2 Dated Jan 14, 2010.

Segment 5BW to 5CW

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This QA Inspector performed Individual Inspection with Caltrans QA Manikandan for the Skin Flatness across Transverse Splice Joints at Location B1(Cross Beam Side Panel), B2(Bottom Panel), B3(Bottom Panel) and B4(Bike Path Side Panel) for Segment 5BW to 5CW between PP 34 and PP 35 confirming the reading taken by ABF against the RFI No. ABF-RFI-001869 Rev.2 Dated Jan 14, 2010.

Segment 6AW, 6BW to 6CW

This QA Inspector observed ZPMC welding personnel performing repair welding by Shielded Metal Arc Welding (SMAW) for Edge Panel to Deck Panel Weld Cross Beam side. The weld joints are identified as Seg027*-044, Seg027*-048, Seg031*043, Seg031*045 for Corner Assembly CA013-001, CA013-003 and CA013-005. The welder is identified as 045196 and 067764. 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. The repair welding was performed against Critical Welding Repair Report no. B-CWR 1138 Rev.0 Dated 01/19/2010. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

Segment 6AE

This QA Inspector observed ZPMC welding personnel performing repair welding by Shielded Metal Arc Welding (SMAW) for Edge Panel to Deck Panel Weld Bike Path Side. The welding was performed at Corner Assembly CA028-002, CA028-004 and CA028-006. The welder is identified as 201087 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. The repair welding was performed against Critical Welding Repair Report no. B-CWR 1137 Rev.0 Dated 01/19/2010. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

Segment 6CE

This QA Inspector observed ZPMC welding personnel performing repair welding by Shielded Metal Arc Welding (SMAW) for Edge Panel to Deck Panel Weld Bike Path Side. The welding was performed at Corner Assembly CA030-002, CA030-004 and CA030-006. The welder is identified as 044779 and 044772. 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. The repair welding was performed against Critical Welding Repair Report no. B-CWR 1139 Rev.0 Dated 01/19/2010. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

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

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your project.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
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Reviewed By:	Miller,Mark	QA Reviewer
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