

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-015367**Date Inspected:** 05-Jul-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 Trial Assembly	

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. 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 9AE to 9BE

This QA Inspector performed Dimension Control Inspection along with Caltrans QA Inspector Mr. Manikandan on the Transverse Splice T-Ribs to T-Ribs for the Segment 9AE to Segment 9BE between Panel Point (PP) 73 to PP 74 at the following locations:

Work Point E1 towards Work Point E3 (Side Panel Bike Path Side) total 19 T-Ribs.

Work Point E3 towards Work Point E4 (Bottom Panel) total 18 T-Ribs.

Work Point E4 towards Work Point E6 (Side Panel Cross Beam Side) total 19 T-Ribs.

The QA Inspector measured the Vertical Offset using 1(One) Meter Straight Edge and measured the Horizontal Offset on the web using a Bridge Cam gauge.

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The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Segment 7BW (FL3 to Bottom Plate)

This Quality Assurance Inspector (QAI) witnessed the final bolt tension verification on bolts connecting the FL3 Flange to the Bottom Plate and the Bottom Plate to Bottom Panel between Panel Points (PP) 50, PP 51 and PP 52 for Segment 7BW. The QAI verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00410 dated July 05, 2010.

The bolt sizes used were M24 x 60 RC Lot # DHGM240014 and the final torque value established was 567 N-m.

The bolt sizes used were M24 x 65 RC Lot# DHGM240002 and the final torque value established was 573 N-m.

The bolt sizes used were M24 x 70 RC Lot # DHGM240010 and the final torque value established was 1200 N-m.

The manual torque wrench used to verify tension was S/N XQ2-109. Please reference the pictures attached for more comprehensive details.

Segment 7DW (FL3 to Bottom Plate)

This Quality Assurance Inspector (QAI) witnessed the final bolt tension verification on bolts connecting the FL3 Flange to the Bottom Plate and the Bottom Plate to Bottom Panel between Panel Points (PP) 56, PP 57 and PP 58 for Segment 7DW. The QAI verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00410 dated July 05, 2010.

The bolt sizes used were M24 x 60 RC Lot # DHGM240014 and the final torque value established was 567 N-m.

The bolt sizes used were M24 x 65 RC Lot# DHGM240002 and the final torque value established was 573 N-m.

The bolt sizes used were M24 x 70 RC Lot # DHGM240010 and the final torque value established was 1200 N-m.

The manual torque wrench used to verify tension was S/N XQ2-109. Please reference the pictures attached for more comprehensive details.

Segment 9AW to 9BW

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as CA055-006. The welder identification was 037996 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-Tc-U4b-FCM-1. The Piece Mark was identified as the Deck Panel to Edge Panel Longitudinal Weld at Work Point W2 on the Counter Weight Side.

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Segment 9AW to 9BW

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as CA059-002. The welder identification was 037996 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-Tc-U4b-FCM-1. The piece mark was identified as Deck Panel to Edge Panel Longitudinal Weld at Work Point W2 on the Counter Weight Side.

Segment 9CE

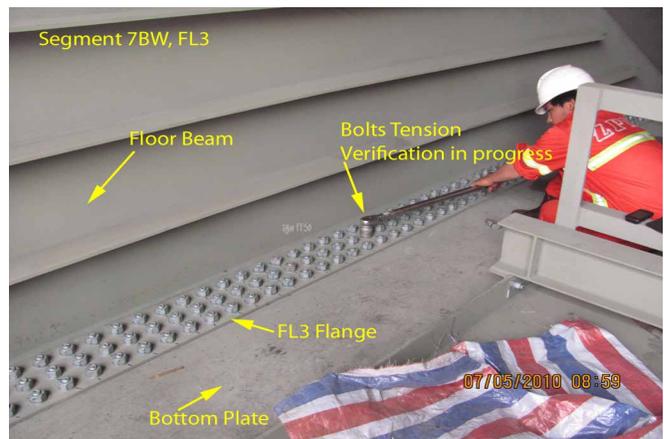
This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on the buttering of the web on the Longitudinal Diaphragm (LD) at Work Point E3. The LD was identified as LD12B. The welder identification was 062092 and was observed welding in the 1G (Flat) position using approved Welding Procedure Specification WPS-B-T-2231T-1. The buttering operation was performed on LD to LD on Segment 9BE to Segment 9CE. The vertical offset measured was 20mm.

Note: The weld connecting the Side Panel to Bottom Panel at Work Point E3 (Longitudinal weld) was flame cut to adjust the skin flatness. Please reference the pictures attached for more comprehensive details.

Segment 9CE

This QA Inspector observed the in process fillet welding operation by the Flux Cored Arc Welding (FCAW) process. The weld joint was designated as Seg054B-007/008. The welder identification was 220069 and was observed welding in the 2F (Horizontal) position using approved Welding Procedure Specification WPS-B-T-2132. The piece mark was identified as the Longitudinal Diaphragm hold back area at Work Point E4 on the Cross Beam Side.

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

Inspected By: Math,Manjunath

Quality Assurance Inspector

Reviewed By: Peterson,Art

QA Reviewer