

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018579**Date Inspected:** 13-Dec-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)**Location:** Shanghai, China**CWI Name:** Li Yang and Zhu Zhong Hai**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) at Trial Assembly Areas

Segment 11EE to Segment 12AE (Transverse Splice T-Ribs- At Field Splice)

This QA Inspector performed Dimension Control Inspection along with Caltrans QA Inspector Mr. Murugan Manikandan on the Transverse Splice T-Ribs to T-Ribs for the Segment 11EE to Segment 12AE between Panel Point (PP) 108 to PP 109 at the following locations:

Work Point W6 towards Work Point W4 (Side Panel Cross Beam Side) total 19 T-Ribs.

Work Point W4 towards Work Point W3 (Bottom Panel) total 18 T-Ribs.

Work Point W3 towards Work Point W1 (Side Panel Counter Weight 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.

WELDING INSPECTION REPORT

(Continued Page 2 of 5)

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 11AE (Cable Tray)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for cable tray structure installed at bottom panel between the Panel Points (PP) 95 to PP 96, PP 96 to PP 97 and PP 97 to PP 98 for Segment 11AE at North and South side. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00570 Dated December 13, 2010.

Bolt sizes used were M3/4" x 2" RC Set# DHG60631 and final torque required was 346 N-m.

Bolt sizes used were M3/4" x 2 1/2" RC Set# DHG60581 and final torque required was 294 N-m.

The Manual Torque wrench used was Serial No. XO2-819.

Segment 11BE (Cable Tray)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for cable tray structure installed at bottom panel between the Panel Points (PP) 98.5 to PP 99 and PP 99.5 to PP 100 for Segment 11BE at North and South side. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00570 Dated December 13, 2010.

Bolt sizes used were M3/4" x 2" RC Set# DHG60631 and final torque required was 346 N-m.

Bolt sizes used were M3/4" x 2 1/2" RC Set# DHG60581 and final torque required was 294 N-m.

The Manual Torque wrench used was Serial No. XO2-819.

Note: Cable Tray structure is not installed between PP 98 to PP 98.5 and PP 99.5 to PP 100 as per shipment plan, temporary sea fastener structures fall in-way of Cable Tray structure.

Segment 11CE (Cable Tray)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for cable tray structure installed at bottom panel between the Panel Points (PP) 100 to PP 101; PP 101 to PP 102 and PP 102 to PP 103 for Segment 11CE at North and South side. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00570 Dated December 13, 2010.

Bolt sizes used were M3/4" x 2" RC Set# DHG60631 and final torque required was 346 N-m.

Bolt sizes used were M3/4" x 2 1/2" RC Set# DHG60581 and final torque required was 294 N-m.

WELDING INSPECTION REPORT

(Continued Page 3 of 5)

The Manual Torque wrench used was Serial No. XO2-819.

Segment 11DE (Cable Tray)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for cable tray structure installed at bottom panel between the Panel Points (PP) 103 to PP 104; PP 104.5 to PP105 and PP 105.5 to PP 106 for Segment 11DE at North and South side. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00570 Dated December 13, 2010.

Bolt sizes used were M3/4" x 2" RC Set# DHG60631 and final torque required was 346 N-m.

Bolt sizes used were M3/4" x 2 ½ " RC Set# DHG60581 and final torque required was 294 N-m.

The Manual Torque wrench used was Serial No. XO2-819.

Note: Cable Tray structure is not installed between PP 104 to PP 104.5 and PP 105 to PP 105.5 as per shipment plan, temporary sea fastener structures fall in-way of Cable Tray structure.

Segment 11EE (Cable Tray)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for cable tray structure installed at bottom panel between the Panel Points (PP) 106 to PP 107; PP 107 to PP 107.5 and PP 108 to PP108.75 for Segment 11EE at North and South side. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00570 Dated December 13, 2010.

Bolt sizes used were M3/4" x 2" RC Set# DHG60631 and final torque required was 346 N-m.

Bolt sizes used were M3/4" x 2 ½ " RC Set# DHG60581 and final torque required was 294 N-m.

The Manual Torque wrench used was Serial No. XO2-819.

Note: Cable Tray structure is not installed between PP 107.5 to PP 108 as per shipment plan, temporary sea fastener structures fall in-way of Cable Tray structure.

Please reference the pictures attached for more comprehensive details.

U-Rib Reinforced Plate

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as USPL1-654-001. The welder identification was 046709 and was observed welding in the 1G (Flat) position using approved Welding Procedure Specification WPS-345-SMAW-1G(1F)-FCM-Repair-1. The piece mark was identified as the U-Rib Reinforced Plate. ZPMC personnel performing repair welding in accordance with Welding Repair Report B-WR19042.

WELDING INSPECTION REPORT

(Continued Page 4 of 5)

U-Rib Reinforced Plate

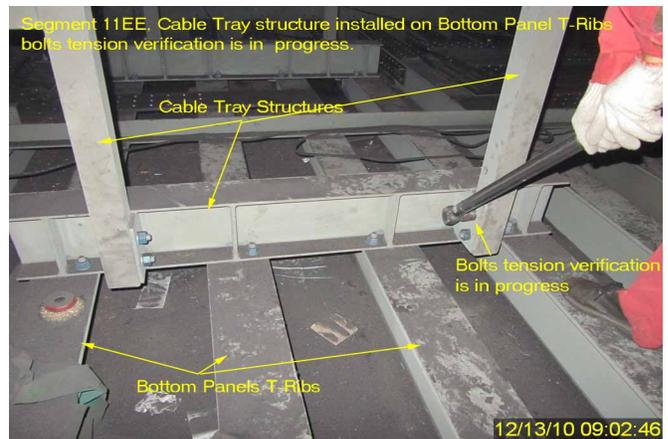
This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as USPL1-655-001. The welder identification was 057333 and was observed welding in the 1G (Flat) position using approved Welding Procedure Specification WPS-345-SMAW-1G(1F)-FCM-Repair-1. The piece mark was identified as the U-Rib Reinforced Plate. ZPMC personnel performing repair welding in accordance with Welding Repair Report B-WR19044.

Please reference the pictures attached for more comprehensive details.

Segment 11CE to Segment 11DE

This QA Inspector observed rotation-of-nut after snug tightening is in progress for Side Panel T-Rib to T-Rib between Segment 11CE to Segment 11DE, Cross Beam side, Panel Points PP 103 to PP 104 at Transverse Splice. Please reference the pictures attached for more comprehensive details.

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



WELDING INSPECTION REPORT

(Continued Page 5 of 5)



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 Tsang 150000422372, who represents the Office of Structural Materials for your project.

Inspected By: Math,Manjunath

Quality Assurance Inspector

Reviewed By: Dsouza,Christopher

QA Reviewer