

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021787**Date Inspected:** 11-Mar-2011**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 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 12AW (Side Panel T-Ribs at FL3 location)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the T-Rib to T-Rib at Side Panel Cross Beam side at Panel Points (PP) 110, PP 111 and PP 112 for Segment 12AW. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00625 dated March 11, 2011. The QA inspector observed reinforced splice plates are installed at following locations.

At PP 110: 13th T-Rib, 14th T-Rib, 15th T-Rib, 16th T-Rib, 17th T-Rib and 18th T-Rib.

At PP 111: 6th T-Rib, 7th T-Rib, 8th T-Rib, 9th T-Rib, 13th T-Rib, 14th T-Rib, 15th T-Rib, 16th T-Rib, 17th T-Rib, 18th T-Rib and 19th T-Rib.

At PP 112: 6th T-Rib and 12th T-Rib.

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Note: T-Ribs numbering reference taken from Work Point W4 towards W6.

The bolt sizes used were M22 x 65 RC Lot # DHGM220114 and the final torque value established was 333 N-m.

The bolt sizes used were M22 x 80 RC Lot # DHGM220118 and the final torque value established was 470 N-m.

The Manual Torque wrench used was Serial No. XO2-776.

Please reference the pictures attached for more comprehensive details.

Segment 12AW (Side Panel T-Ribs at FL3)

This QA Inspector performed Dimension Control Inspection on the side panel T-Rib at FL3 areas after bolting for the Segment 12AW at, PP 111 and PP 112 at the following locations:

At Panel Points (PP) 110, Work Point W4 towards Work Point W6 (Side Panel Cross Beam Side) total 19 T-Ribs at each Panel Points.

At Panel Points (PP) 111, Work Point W4 towards Work Point W6 (Side Panel Cross Beam Side) total 19 T-Ribs at each Panel Points.

At Panel Points (PP) 112, Work Point W4 towards Work Point W6 (Side Panel Cross Beam Side) total 19 T-Ribs at each Panel Points.

The QA Inspector measured the Vertical Offset using 1(One) Meter Straight Edge.

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 12AE (Re-entrant Corner)

This QA Inspector performed Dimension Control Inspection for the Segment 12AE at the following locations:

The re-entrant corners at the Floor Beam vertical flange radius were verified and measured on Panel Point (PP) 109 at the Cross Beam and Bike Path side, West Side of Floor Beam. The QA Inspector measured the radius of re-entrant corner using a pre-cut 25mm and 50mm template.

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 12AW (Re-entrant Corner)

This QA Inspector performed Dimension Control Inspection for the Segment 12AW at the following locations:

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The re-entrant corners at the Floor Beam vertical flange radius were verified and measured on Panel Point (PP) 109 at the Cross Beam and Counter Weight side, West Side of Floor Beam. The QA Inspector measured the radius of re-entrant corner using a pre-cut 25mm and 50mm template.

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 12AE (Cope Holes)

This QA Inspector performed Dimension Control Inspection for the Segment 12AE at Panel Point (PP) 109 at the following locations:

The Cope hole dimensions located at the Floor Beam to Bottom Panel, Floor Beam to Side Panel and at Longitudinal Diaphragms (West side) was verified and measured at the Panel Points (PP) 109 at the Counter Weight (CW) side and Cross Beam (CB) side. The QA Inspector measured the cope holes dimension using a 150mm steel ruler.

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. Please reference the pictures attached for more comprehensive details.

Segment 12AE (Cope Holes)

This QA Inspector performed Dimension Control Inspection for the Segment 12AE at Panel Point (PP) 109 at the following locations:

The Cope hole dimensions located at the Floor Beam to Bottom Panel, Floor Beam to Side Panel and at Longitudinal Diaphragms (West side) was verified and measured at the Panel Points (PP) 109 at the Cross Beam (CB) side and Bike Path (BK) side. The QA Inspector measured the cope holes dimension using a 150mm steel ruler.

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 12AW (Cope Holes)

This QA Inspector performed Dimension Control Inspection for the Segment 12AW at Panel Point (PP) 109 at the following locations:

The Cope hole dimensions located at the Floor Beam to Bottom Panel, Floor Beam to Side Panel and at Longitudinal Diaphragms (West side) was verified and measured at the Panel Points (PP) 109 at the Cross Beam (CB) side and Counter Weight (CW) side. The QA Inspector measured the cope holes dimension using a 150mm steel ruler.

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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.

Traveler Rails at Bay # 16

This QA Inspector performed Dimension Control Inspection on the Traveler Rails 20TR2 for the following measurements.

Traveler Rails Thickness at typical section,

Traveler Rails Flange width at typical section,

Traveler Rails Depth at typical section,

Traveler Rails Flange curl at typical section,

Traveler Rails Traveler Rail length.

Traveler Rails Sweep.

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 and result of the Inspection was informed to the ZPMC QC Mr. Ma Qian Li and ABF QA Mr. Liu Tao.

Segment 12CE (Deck Panel Diaphragm to Floor Beam Flange)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Fillet weld. The weld joint was designated as CA3005E-269. The welder identification was 040378 and observed welding in the 2F (Horizontal) position using approved Welding Procedure Specification WPS-B-P-2112-FCM-1. The piece mark was identified as weld connecting the Deck Panel Diaphragm to Floor Beam Flange at PP 117, Bike Path side.

Please reference the pictures attached for more comprehensive details.

Segment 12AW (Side Panel and Edge Panel connecting weld)

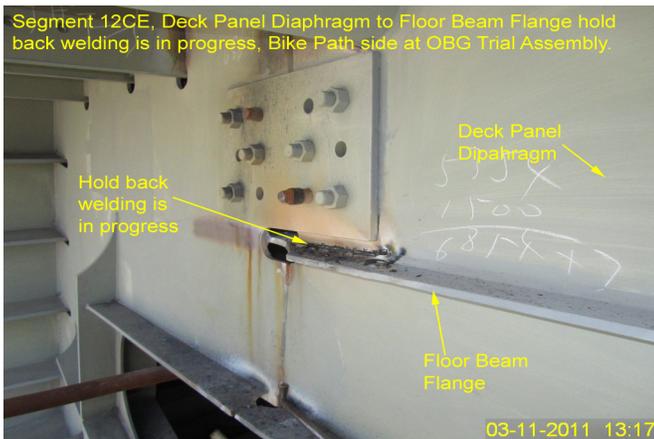
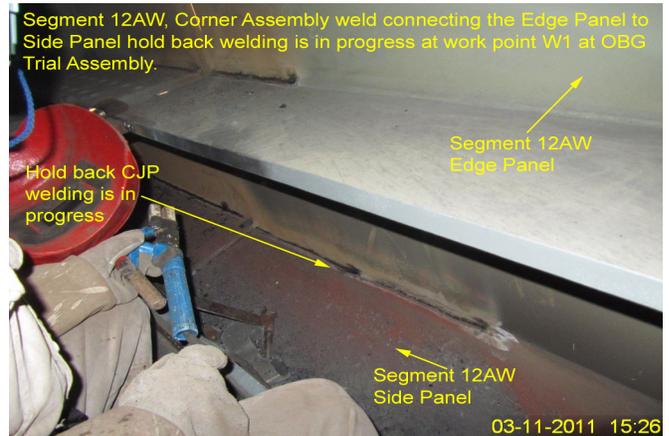
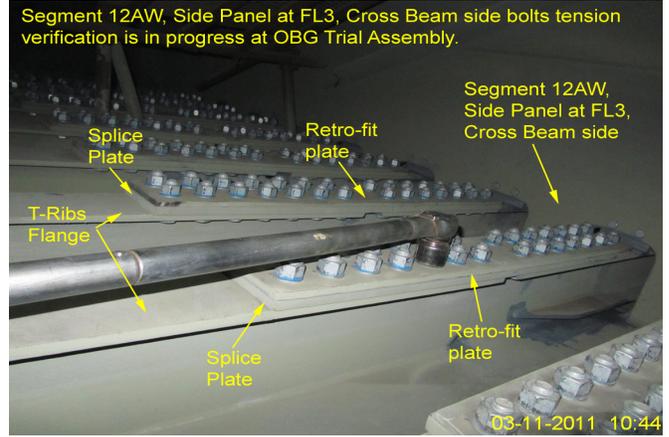
This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as CA3006-006. The welder identification was 046709 and was observed welding in the 2G (Horizontal) position using approved Welding Procedure Specification WPS-B-P-2212-Tc-U4b-FCM-1. The piece mark was identified as Side Panel to Edge Panel hold back weld at work point W1.

Please reference the pictures attached for more comprehensive details.

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



Summary of Conversations:

No relevant conversations were reported on this date.

Comments

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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 15000422372, who represents the Office of Structural Materials for your project.

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