

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023146**Date Inspected:** 26-Apr-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:	N/A	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 (Catwalk)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Catwalk structure which is connected to Bottom Panel T-Ribs and Side Panel T-Ribs at Panel Point (PP) 110 and PP 111 for Segment 12AW at Bottom Panel. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00664 Dated April 26, 2011.

Bolt sizes used were M16 x 40 RC Set# DHGM160045 and final torque required was Turn of Nut.

Bolt sizes used were M16 x 50 RC Set# DHGM160011 and final torque required was 200 N-m.

The Manual Torque wrench used was Serial No. XO2-114.

Please reference the pictures attached for more comprehensive details.

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Segment 12AW (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) 110 to PP 111 and PP 112 to PP 113 for Segment 12AW 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. 00664 Dated April 26, 2011.

Bolt sizes used were M20 x 45 RC Set# DHGM200036 and final torque required was 287 N-m.

Bolt sizes used were M20x50 RC Set# DHGM200037 and final torque required was 367 N-m.

The Manual Torque wrench used was Serial No. XO2-114.

Please reference the pictures attached for more comprehensive details.

Segment 12CW (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) 116.5 to PP 117 (at 30 degree) for Segment 12CW at South side. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00664 Dated April 26, 2011.

Bolt sizes used were M20 x 45 RC Set# DHGM200036 and final torque required was 287 N-m.

Bolt sizes used were M20x50 RC Set# DHGM200037 and final torque required was 367 N-m.

The Manual Torque wrench used was Serial No. XO2-114.

Traveler Rail at Paint Shop # 2

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Traveler Rail at Paint shop # 2. The QA Inspector verified the bolt tension for bolts connecting the Angle piece to Traveler Rail web on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00664 dated April 26, 2011.

The bolt sizes used were M16 x 75 RC Lot # DHGM160023 and the final torque value established was 190 N-m.

The bolt sizes used were M5/8"x 3" RC Lot # DHG51195 and the final torque value established was 193 N-m.

The Manual Torque wrench used was Serial No. XO2-777.

The Traveler Rail on which bolt tension verification performed are identified as below total Eight (8) pieces.

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Traveler Rail # 9TR1-002.

Traveler Rail # 9TR1-001.

Traveler Rail # 11TR5-006.

Traveler Rail # 11TR5-008.

Traveler Rail # 11TR9-002.

Traveler Rail # 9TR2-001.

Traveler Rail # 11TR9-001.

Traveler Rail # 9TR2-002.

The Manual Torque wrench used was Serial No. XO2-777.

Please reference the pictures attached for more comprehensive details.

Segment 12CE to Segment 13AE (Transverse Splice T-Ribs and I-Ribs) for Field Splice

This QA Inspector performed Dimension Control Inspection on the Transverse Splice T-Ribs to T-Ribs and I-Ribs to I-Ribs for the Segment 12CE to Segment 13AE (Field Splice) between Panel Point (PP) 117 to PP 117.5 at the following locations:

Deck Panel I-Ribs to I-Ribs 3 locations (Bike Path side).

Edge Panel I-Ribs to I-Ribs at 4 locations, between work point E2 towards work point E11 (Bike Path side).

Side Panel Corner Assembly I-Ribs to I-Ribs at 5 locations, between work point E11 towards Work point E13 (Bike Path Side).

Side Panel T-Ribs to T-Ribs at 13 locations, between work point E11 towards work point E13 (Bike Path Side).

Bottom Panel I-Ribs to I-Ribs at 5 locations, between work point E13 towards work point E3.

Bottom Panel T-Ribs to T-Ribs at 18 locations, between work point E3 towards work point E4.

Bottom Panel I-Ribs to I-Ribs at 5 locations, between work point E4 towards work point E14.

Side Panel T-Ribs to T-Ribs at 13 locations, between work point E14 towards work point E16 (Cross Beam Side).

Side Panel Corner Assembly I-Ribs to I-Ribs at 5 locations, between work point E14 towards Work point E16

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(Cross Beam Side).

Edge Panel I-Ribs to I-Ribs at 4 locations, between work point E16 towards work point E5 (Cross Beam side).

Deck Panel I-Ribs to I-Ribs 3 locations (Cross Beam side).

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.

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 12CW to Segment 13AW (Transverse Splice T-Ribs and I-Ribs) for Field Splice

This QA Inspector performed Dimension Control Inspection on the Transverse Splice T-Ribs to T-Ribs and I-Ribs to I-Ribs for the Segment 12CW to Segment 13AW (Field Splice) between Panel Point (PP) 117 to PP 117.5 at the following locations:

Deck Panel I-Ribs to I-Ribs 3 locations (Cross Beam side).

Edge Panel I-Ribs to I-Ribs at 4 locations, between work point W5 towards work point W16 (Cross Beam side).

Side Panel Corner Assembly I-Ribs to I-Ribs at 5 locations, between work point W16 towards Work point W14 (Cross Beam side).

Side Panel T-Ribs to T-Ribs at 13 locations, between work point W16 towards work point W14 (Cross Beam side).

Bottom Panel I-Ribs to I-Ribs at 5 locations, between work point W14 towards work point W4.

Bottom Panel T-Ribs to T-Ribs at 18 locations, between work point W4 towards work point W3.

Bottom Panel I-Ribs to I-Ribs at 5 locations, between work point W3 towards work point W13.

Side Panel T-Ribs to T-Ribs at 13 locations, between work point W13 towards work point W11 (Counter Weight side).

Side Panel Corner Assembly I-Ribs to I-Ribs at 5 locations, between work point W13 towards Work point W11 (Counter Weight side).

Edge Panel I-Ribs to I-Ribs at 4 locations, between work point W11 towards work point W2 (Counter Weight side).

Deck Panel I-Ribs to I-Ribs 3 locations (Counter Weight side).

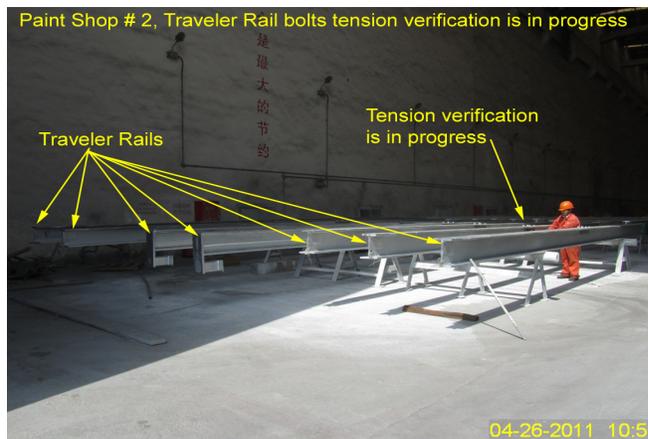
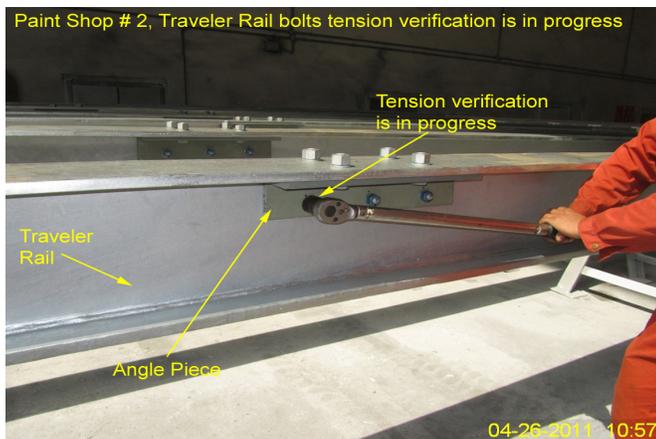
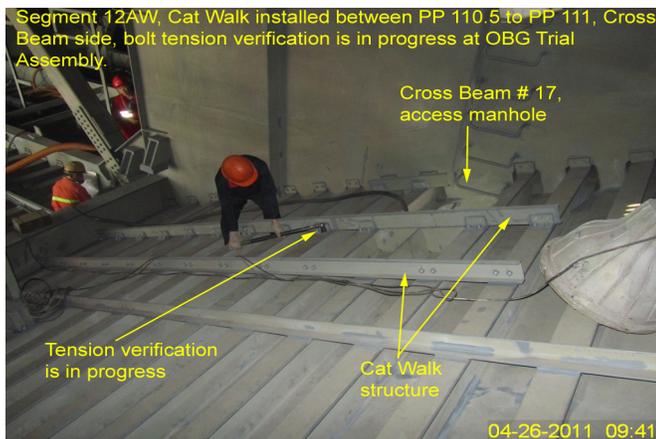
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The QA Inspector measured the Vertical Offset using 1(One) Meter Straight Edge and measured the Horizontal Offset on the web using a Bridge Cam gauge.

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.

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

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

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Reviewed By: Miller,Mark

QA Reviewer