

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 #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016308**Date Inspected:** 18-Aug-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:	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 9BE to Segment 9CE (U-Rib to U-Rib)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the U-Rib to U-Rib at the transverse splice between Panel Points (PP) 76 and PP 77 for Segment 9BE to Segment 9CE. 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. 00456 dated August 18, 2010.

The bolt sizes used were M22 x 70 RC Lot # DHGM220027 and the final torque value established was 450 N-m.

The manual torque wrench used to verify tension was S/N XO2-114. Please reference the pictures attached for more comprehensive details.

Segment 9AE (Lower Chevron)

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This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Lower Chevron X3D Bracket connected to floor beam flange and to the splice plate at Panel Point (PP) 72 and PP 73 for Segment 9AE at Cross Beam and Bike Path side. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00456 Dated August 18, 2010.

Bolt sizes used were M22 x 65 RC Set# DHGM220105 and final torque required was 690 N-m.

Bolt sizes used were M22 x 75 RC Set# DHGM220034 and final torque required was 453 N-m.

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

Segment 9BE (Lower Chevron)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Lower Chevron X3D Bracket connected to floor beam flange and to the splice plate at Panel Point (PP) 74, PP 75 and PP 76 for Segment 9BE at Cross Beam and Bike Path side. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00456 Dated August 18, 2010.

Bolt sizes used were M22 x 65 RC Set# DHGM220105 and final torque required was 690 N-m.

Bolt sizes used were M22 x 75 RC Set# DHGM220034 and final torque required was 453 N-m.

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

Segment 9CE (Lower Chevron)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Lower Chevron X3D Bracket connected to floor beam flange and to the splice plate at Panel Point (PP) 77, PP 78 and PP 79 for Segment 9CE at Cross Beam and Bike Path side. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00456 Dated August 18, 2010.

Bolt sizes used were M22 x 65 RC Set# DHGM220105 and final torque required was 690 N-m.

Bolt sizes used were M22 x 75 RC Set# DHGM220034 and final torque required was 453 N-m.

The Manual Torque wrench used was Serial No. XO2-114. Please reference the pictures attached for more comprehensive details.

Segment 9DE (Lower Chevron)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Lower Chevron X3D Bracket connected to floor beam flange and to the splice plate at Panel Point (PP) 80, PP 81 and PP 82 for Segment 9DE at Cross Beam and Bike Path side. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00456 Dated August 18, 2010.

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Bolt sizes used were M22 x 65 RC Set# DHGM220105 and final torque required was 690 N-m.

Bolt sizes used were M22 x 75 RC Set# DHGM220034 and final torque required was 453 N-m.

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

Segment 9EE (Lower Chevron)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Lower Chevron X3D Bracket connected to floor beam flange and to the splice plate at Panel Point (PP) 83, PP 84 and PP 85 for Segment 9EE at Cross Beam and Bike Path side. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00456 Dated August 18, 2010.

Bolt sizes used were M22 x 65 RC Set# DHGM220105 and final torque required was 690 N-m.

Bolt sizes used were M22 x 75 RC Set# DHGM220034 and final torque required was 453 N-m.

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

Segment 9AE (Cat Walk)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Catwalk structure which is connected to Bottom Panel T-Ribs at Panel Point (PP) 72 and PP 73 for Segment 9AE 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. 00456 Dated August 18, 2010.

Bolt sizes used were M16 x 45 RC Set# DHGM160010 and final torque required was 200 N-m.

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.

Segment 9BE (Cat Walk)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Catwalk structure which is connected to Bottom Panel T-Ribs at Panel Point (PP) 74, PP 75 and PP 76 for Segment 9BE 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. 00456 Dated August 18, 2010.

Bolt sizes used were M16 x 45 RC Set# DHGM160010 and final torque required was 200 N-m.

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

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The Manual Torque wrench used was Serial No. XO2-114. Please reference the pictures attached for more comprehensive details.

Segment 9CE (Cat Walk)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Catwalk structure which is connected to Bottom Panel T-Ribs at Panel Point (PP) 77, PP 78 and PP 79 for Segment 9CE 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. 00456 Dated August 18, 2010.

Bolt sizes used were M16 x 45 RC Set# DHGM160010 and final torque required was 200 N-m.

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.

Segment 9DE (Cat Walk)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Catwalk structure which is connected to Bottom Panel T-Ribs at Panel Point (PP) 80, PP 81 and PP 82 for Segment 9DE 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. 00456 Dated August 18, 2010.

Bolt sizes used were M16 x 45 RC Set# DHGM160010 and final torque required was 200 N-m.

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.

Segment 9EE (Cat Walk)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Catwalk structure which is connected to Bottom Panel T-Ribs at Panel Point (PP) 83, PP 84 and PP 85 for Segment 9EE 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. 00456 Dated August 18, 2010.

Bolt sizes used were M16 x 45 RC Set# DHGM160010 and final torque required was 200 N-m.

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.

Segment 9AW (Cat Walk)

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This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Catwalk structure which is connected to Bottom Panel T-Ribs at Panel Point (PP) 72 and PP 73 for Segment 9AW 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. 00456 Dated August 18, 2010.

Bolt sizes used were M16 x 45 RC Set# DHGM160010 and final torque required was 200 N-m.

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.

Segment 9BW (Cat Walk)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Catwalk structure which is connected to Bottom Panel T-Ribs at Panel Point (PP) 74, PP 75 and PP 76 for Segment 9BW 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. 00456 Dated August 18, 2010.

Bolt sizes used were M16 x 45 RC Set# DHGM160010 and final torque required was 200 N-m.

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.

Segment 9CW (Cat Walk)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Catwalk structure which is connected to Bottom Panel T-Ribs at Panel Point (PP) 77, PP 78 and PP 79 for Segment 9CW 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. 00456 Dated August 18, 2010.

Bolt sizes used were M16 x 45 RC Set# DHGM160010 and final torque required was 200 N-m.

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.

Segment 9DW (Cat Walk)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Catwalk structure which is connected to Bottom Panel T-Ribs at Panel Point (PP) 80, PP 81 and PP 82 for Segment 9DW 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. 00456 Dated August 18, 2010.

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Bolt sizes used were M16 x 45 RC Set# DHGM160010 and final torque required was 200 N-m.

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.

Segment 9EW (Cat Walk)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Catwalk structure which is connected to Bottom Panel T-Ribs at Panel Point (PP) 83, PP 84 and PP 85 for Segment 9EW 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. 00456 Dated August 18, 2010.

Bolt sizes used were M16 x 45 RC Set# DHGM160010 and final torque required was 200 N-m.

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.

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



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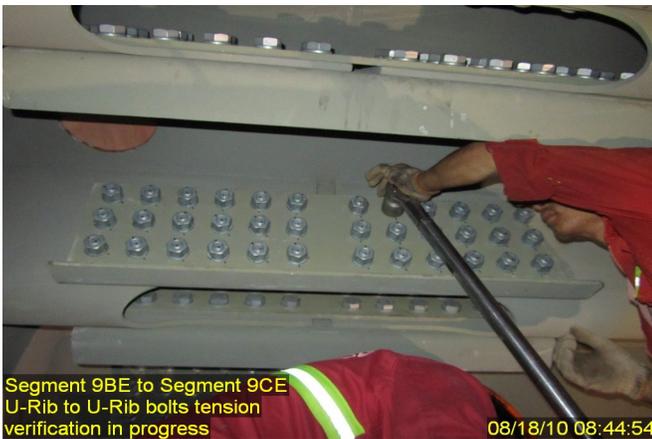
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Segment 9BE between PP 74.5 to PP 75
Calkwalk Structure installed at Bottom
Panel bolts tension verification in progress 08/18/10 09:53:02



Segment 9CE at PP 79, X3D bracket installed
at Lower Chevron bolts tension verification
in progress 08/18/10 09:23:48



Segment 9BE to Segment 9CE
U-Rib to U-Rib bolts tension
verification in progress 08/18/10 08:44:54

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: Peterson,Art

QA Reviewer