

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016629**Date Inspected:** 07-Sep-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 9DE (Catwalk at FL3)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Catwalk structure which is connected to Bottom Plate I-Ribs at FL3 area between Panel Points (PP) 80 and PP 81 for Segment 9DE.

Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00480 Dated September 07, 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.

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Segment 9AW (Catwalk at FL3)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Catwalk structure which is connected to Bottom Plate I-Ribs at FL3 area between Panel Points (PP) 74 and PP 75 for Segment 9AW. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00480 Dated September 07, 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 (Catwalk at FL3)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Catwalk structure which is connected to Bottom Plate I-Ribs at FL3 area between Panel Points (PP) 80 and PP 81 for Segment 9DW. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00480 Dated September 07, 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 (Partial Height Diaphragm)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Partial Height Diaphragm flange to the Side Panel at FL3 location at Panel Points (PP) 74, PP 75 and PP 76 for Segment 9BE. 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. 00478 dated Sep 07, 2010.

The bolt sizes used were M24 x 65 RC Lot # DHGM240013 and the final torque value established was 540 N-m.

The Manual Torque wrench used was Serial No. XO2-666.

Segment 9DE (Partial Height Diaphragm)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Partial Height Diaphragm flange to the Side Panel at FL3 location at Panel Points (PP) 80, PP 81 and PP 82 for Segment 9DE. 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. 00478 dated Sep 07, 2010.

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The bolt sizes used were M24 x 65 RC Lot # DHGM240013 and the final torque value established was 540 N-m.

The Manual Torque wrench used was Serial No. XO2-666. Please reference the pictures attached for more comprehensive details.

Segment 9DE (Road Barrier Brackets)

This QA Inspector witnessed the final bolt tension verification on bolts installed at Corner Assembly connecting the Road Barrier Brackets at Cross Beam and Bike Path side at Panel Point (PP) 85.25 for Segment 9EE. 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. 00478 dated September 07, 2010.

The bolt sizes used were M22 x 120 RC Lot # DHGM220053 and the final torque value established was 440 N-m.

The Manual Torque wrench used was Serial No. XO2-666.

Segment 9AE (T-Ribs Connection Plate)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the T-Ribs Connection Plate to Floor Beam at Side Panel at the Panel Point (PP) 73 for Segment 9AE. 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. 00478 dated September 07, 2010.

The bolt sizes used were M16 x 45 RC Lot # DHGM160001 and the final torque value established was 210 N-m.

The bolt sizes used were M16 x 65 RC Lot # DHGM160004 and the final torque value established was 180 N-m.

The Connection Plates offered for Inspection were 8th and 17th from work point E3 towards work point E1 (Bike Path side) and 3rd and 5th from work point E4 towards work point E6 (Cross Beam side)

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

Segment 9BE (T-Ribs Connection Plate)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the T-Ribs Connection Plate to Floor Beam at Side Panel at the Panel Point (PP) 75 for Segment 9BE. 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. 00478 dated September 07, 2010.

The bolt sizes used were M16 x 45 RC Lot # DHGM160001 and the final torque value established was 210 N-m.

The bolt sizes used were M16 x 65 RC Lot # DHGM160004 and the final torque value established was 180 N-m.

The Connection Plates offered for Inspection were 19th from work point E3 towards work point E1 (Bike Path

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side) and 13th from work point E4 towards work point E6 (Cross Beam side)

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

Segment 9CE (T-Ribs Connection Plate)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the T-Ribs Connection Plate to Floor Beam at Side Panel at the Panel Point (PP) 80 for 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. 00478 dated September 07, 2010.

The bolt sizes used were M16 x 45 RC Lot # DHGM160001 and the final torque value established was 210 N-m.

The bolt sizes used were M16 x 65 RC Lot # DHGM160004 and the final torque value established was 180 N-m.

The Connection Plates offered for Inspection were 19th from work point E3 towards work point E1 (Bike Path side) and 11th and 19th from work point E4 towards work point E6 (Cross Beam side)

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

Segment 9EE (T-Ribs Connection Plate)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the T-Ribs Connection Plate to Floor Beam at Side Panel at the Panel Point (PP) 84 and PP 85 for Segment 9EE. 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. 00478 dated September 07, 2010.

The bolt sizes used were M16 x 45 RC Lot # DHGM160001 and the final torque value established was 210 N-m.

The bolt sizes used were M16 x 65 RC Lot # DHGM160004 and the final torque value established was 180 N-m.

The Connection Plates offered for Inspection were 19th (at PP 84 and PP 85) from work point E4 towards work point E6 (Cross Beam side)

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

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

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Segment 9DE between PP 80 and PP 81
Cat Walk structure at FL3, bolts tension verification
in progress. 09/07/10 15:24:34



Segment 9DE between PP 80 and PP 81
Cat Walk structure at FL3, bolts tension verification
in progress. 09/07/10 15:23:46



Segment 9DE between PP 80 and PP 81
Cat Walk structure at FL3, bolts tension verification
in progress. 09/07/10 15:24:42



Segment 9DE at PP 82 FL3 partial height
diaphragm flange connecting to
Side Panel, bolts tension verification
in progress. 09/07/10 09:16:34



Segment 9DE at PP 82 FL3 partial height
diaphragm flange connecting to
Side Panel, bolts tension verification
in progress. 09/07/10 09:16:40

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.

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Inspected By:	Math,Manjunath	Quality Assurance Inspector
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Reviewed By:	Peterson,Art	QA Reviewer
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