

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-016253**Date Inspected:** 16-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) Trial Assembly Areas

Segment 9AW (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) 72 and PP 73 for Segment 9AW at Cross Beam and Counter Weight side. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00454 Dated August 16, 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 9BW (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) 74, PP 75 and PP 76 for Segment 9BW at Cross Beam and Counter Weight side. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00454 Dated August 16, 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 9CW (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 and PP 78 for Segment 9CW at Cross Beam and Counter Weight side. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00454 Dated August 16, 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 9BW

This QA Inspector witnessed the final bolt tension verification on bolts connecting the T-Ribs to T-Ribs at Side Panel Cross Beam side at reinforced splice plates installed area at Panel Points (PP) 74, PP 75 and PP 76 for Segment 9DW. 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. 00439 dated July 25, 2010. The reinforced splice plates are installed at following locations.

At PP 74: 7th T-Rib, 8th 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 75: 18th T-Rib and 19th T-Rib

At PP 76: 2nd T-Rib, 3rd T-Rib, 5th T-Rib, 6th T-Rib, 7th T-Rib, 8th T-Rib, 10th T-Rib, 11th T-Rib, 12th T-Rib, 16th T-Rib, 17th T-Rib, 18th T-Rib and 19th T-Rib.

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

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The bolt sizes used were M22 x 80 RC Lot # DHGM220091 and the final torque value established was 460 N-m. The manual torque wrench used to verify tension was S/N XO2-779. Please reference the pictures attached for more comprehensive details.

Segment 9AE to Segment 9BE (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) 73 and PP 74 for Segment 9AE to 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. 00454 dated August 16, 2010.

The bolt sizes used were M22 x 65 RC Lot # DHGM220105 and the final torque value established was 380 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 9DE

This QA Inspector performed Green Tag Dimension Control Inspection for the Segment 9DE at Panel Points (PP) 82 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 were verified and measured at the Panel Points (PP) 82 at the Cross Beam (CB) and Bike Path (BK) side. The QA Inspector measured the cope hole dimensions 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 9CE

This QA Inspector performed Green Tag Dimension Control Inspection for the Segment 9CE at Panel Points (PP) 79 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 were verified and measured at the Panel Points (PP) 79 at the Cross Beam (CB) and Bike Path (BK) side. The QA Inspector measured the cope hole dimensions 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 9BE

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This QA Inspector performed Dimension Control Inspection for the Segment 9CE at the following locations:

The reentrant corner at Floor Beam vertical flange radius were verified and measured for Segment 9BE at Panel Points (PP) 74, PP 75 and PP 76 at the Cross Beam (CB) and Bike Path (BK) side, east and west side of Floor Beam. The QA Inspector measured the radius of reentrant 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.

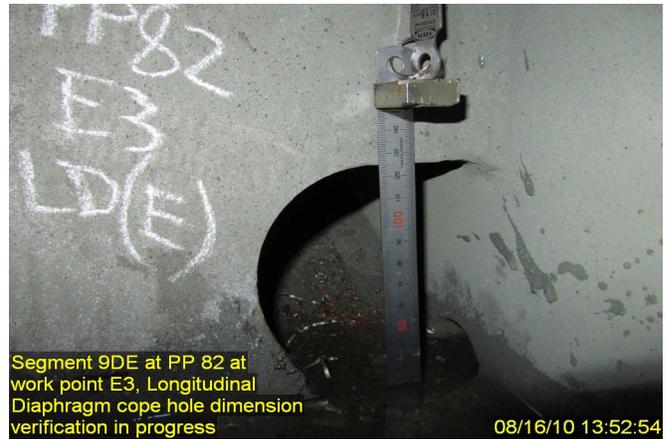
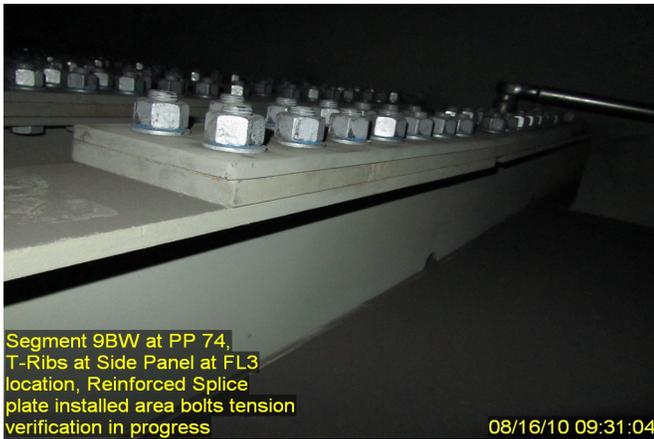
Segment 9CE

This QA Inspector performed Dimension Control Inspection for the Segment 9CE at the following locations:

The reentrant corner at Floor Beam vertical flange radius were verified and measured for Segment 9CE at Panel Points (PP) 77, PP 78 and PP 79 at the Cross Beam (CB) and Bike Path (BK) side, east and west side of Floor Beam. The QA Inspector measured the radius of reentrant 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.

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



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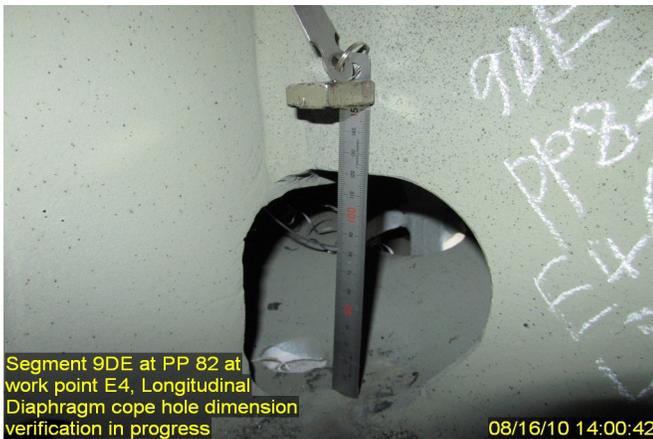
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Segment 9AE to Segment 9BE
U-Rib to U-Rib bolts tension
verification in progress
08/16/10 08:54:00



Segment 9BW at PP 75
Lower Chevron X3D bolts
tension verification in progress
08/16/10 09:45:26



Segment 9DE at PP 82 at
work point E4, Longitudinal
Diaphragm cope hole dimension
verification in progress
08/16/10 14:00:42



Segment 9BW at PP 75
Lower Chevron X3D bolts
tension verification in progress
08/16/10 09:45:50



Segment 9AE to Segment 9BE
U-Rib to U-Rib bolts tension
verification in progress
08/16/10 08:52:52



Segment 9BW at PP 74,
T-Ribs at Side Panel at FL3
location, Reinforced Splice
plate installed area bolts tension
verification in progress
08/16/10 09:30:44

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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