

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013138**Date Inspected:** 24-Mar-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), Changxing Island **Location:** Shanghai, China**CWI Name:****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, 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 6BE to 6CE (U-Ribs)

This Quality Assurance (QA) Inspector witnessed final tension verification for Bolts Installed at U-Ribs to U-Ribs at Reinforced Splice Plates at 6th, 8th, 9th, 10th, 11th, 12th, 23rd, 24th, 25th and 27th (Total 10 locations) between Panel Point (PP) 43 and PP 44 for Segment 6BE to 6CE. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00302 Dated March 24, 2010.

Bolt sizes used were M22 x 65 RC Set# DHGM220018 and final torque required was 447 N-m

Bolt sizes used were M22 x 70 RC Set# DHGM220050 and final torque required was 486 N-m and

Bolt sizes used were M22 x 85 RC Set# DHGM220013 and final torque required was 433 N-m

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Offset between the T-Ribs to T-Ribs measured and the dimension recorded were within the acceptable limit. Manual Torque wrench was used with Sr. No. XQ2-759.

Note: Please refer the attached pictures for more comprehensive details.

Segment 6CW (FL3 Height Diaphragm to Side Panel)

This Quality Assurance (QA) Inspector witnessed final tension verification for Bolts Installed at FL3 Height Diaphragm between Panel Point (PP) 44, PP 45 and PP 46 for Segment 6CW. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00302 Dated March 24, 2010.

Bolt sizes used were M24 x 65 RC Set# DHGM240013 and final torque required was 540 N-m.

Manual Torque wrench was used with Sr. No. XQ2-654.

Segment 6CE (Side Panel T-Rib)

This Quality Assurance (QA) Inspector witnessed final tension verification for Bolts Installed at 13th and 14th T-Rib (Reference taken for numbering from E4 location) Panel Point (PP) 44, PP 45 and PP 46 for Segment 6CE. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00302 Dated March 24, 2010.

Bolt sizes used were M24 x 65 RC Set# DHGM240033 and final torque required was 470 N-m.

Manual Torque wrench was used with Sr. No. XQ2-654.

Segment 6AW (Cable Tray Sling)

This Quality Assurance (QA) Inspector witnessed final tension verification for Cable Tray Sling Installed at Segment 6AW at area between PP 37, PP 38, PP 39 and PP 40. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00300 Dated March 24, 2010.

Tension verification by manual pulling and pushing performed and found satisfactory.

Note: Cable Tray not installed between PP 38 to PP 39 due to interference with Temporary Sea Fasteners.

Segment 6BW (Cable Tray Sling)

This Quality Assurance (QA) Inspector witnessed final tension verification for Cable Tray Sling Installed at Segment 6BW at area between PP 41, PP 42 and PP 43. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00300 Dated March 24, 2010.

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Tension verification by manual pulling and pushing performed and found satisfactory.

Segment 6CW (Cable Tray Sling)

This Quality Assurance (QA) Inspector witnessed final tension verification for Cable Tray Sling Installed at Segment 6CW at area between PP 44, PP 45, PP 46 and PP 47. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00300 Dated March 24, 2010.

Tension verification by manual pulling and pushing performed and found satisfactory.

Segment 6AW (Cat Walk)

This Quality Assurance (QA) Inspector witnessed final tension verification for Bolts Installed at Cat walk Supports for Segment 6AW at area between PP 37, PP 38, PP 39 and PP 40 including the Cat walk structure at Side Panel Cross Beam side between PP 38.5 to PP 39. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00301 Dated March 24, 2010.

Bolt sizes used were M16 x 40 RC Set# DHGM160019 and final torque required was 200 N-m

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

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

Manual Torque wrench was been used with Sr. No. XQ2-114.

Segment 6BW (Cat Walk)

This Quality Assurance (QA) Inspector witnessed final tension verification for Bolts Installed at Cat walk Supports for Segment 6BW at area between PP 41, PP 42 and PP 43. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00301 Dated March 24, 2010.

Bolt sizes used were M16 x 40 RC Set# DHGM160019 and final torque required was 200 N-m

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

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

Manual Torque wrench was been used with Sr. No. XQ2-114.

Segment 6CW (Cat Walk)

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This Quality Assurance (QA) Inspector witnessed final tension verification for Bolts Installed at Cat walk Supports for Segment 6BW at area between PP 44, PP 45, PP 46 and PP 47. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00301 Dated March 24, 2010.

Bolt sizes used were M16 x 40 RC Set# DHGM160019 and final torque required was 200 N-m

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

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

Manual Torque wrench was been used with Sr. No. XQ2-114.

FL3 at Segment 6AW (Cat Walk)

This Quality Assurance (QA) Inspector witnessed final tension verification for Bolts Installed at Cat walk Supports at FL3 for Segment 6AW at area between PP 38 and PP 40. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00301 Dated March 24, 2010.

Bolt sizes used were M16 x 40 RC Set# DHGM160019 and final torque required was 200 N-m and

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

Manual Torque wrench was been used with Sr. No. XQ2-114.

FL3 at Segment 6CW (Cat Walk)

This Quality Assurance (QA) Inspector witnessed final tension verification for Bolts Installed at Cat walk Supports at FL3 for Segment 6CW at area between PP 44 and PP 45. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00301 Dated March 24, 2010.

Bolt sizes used were M16 x 40 RC Set# DHGM160019 and final torque required was 200 N-m and

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

Manual Torque wrench was been used with Sr. No. XQ2-114.

Lift 6 East (Cable Tray Sling)

This Quality Assurance (QA) Inspector observed that Cable Tray Steel Wire Sling which are installed diagonally the extra length after final acceptance by Caltrans QA extra length cutting was in progress for the entire Lift 6 East

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from Panel Point (PP) 37 to PP 47.

Note: Please refer the attached pictures for more comprehensive details.

Lift 6 East (Lower Chevron)

This Quality Assurance (QA) Inspector observed that debris cleaning before boxing up the opening at Lower chevron was in progress by vacuum cleaner at PP 47 Cross Beam side.

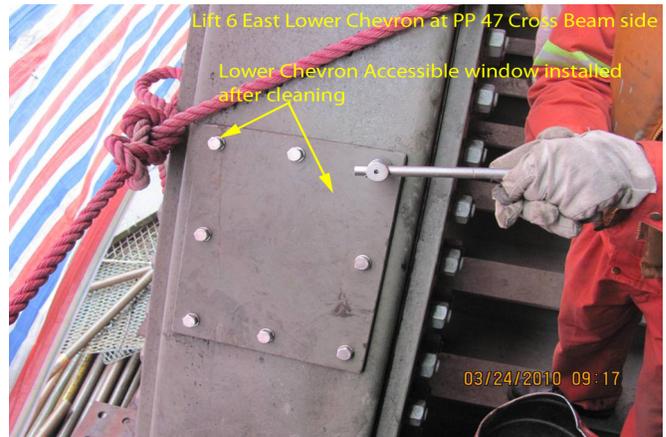
Note: Please refer the attached pictures for more comprehensive details.

Lift 6 East (Suspender Bracket)

This Quality Assurance (QA) Inspector observed that Installation of Suspender Bracket shim installation was in progress for Lift 6 East.

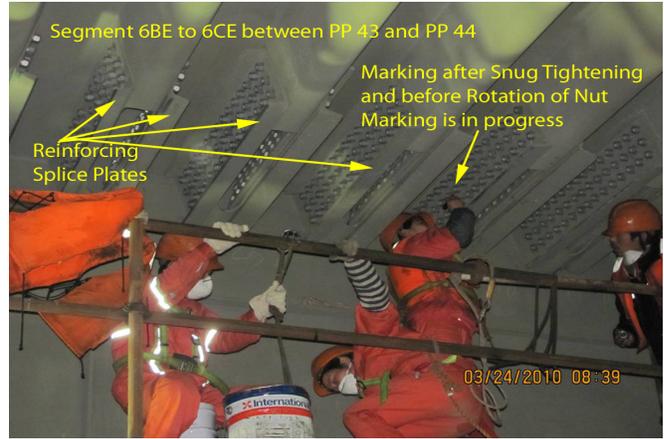
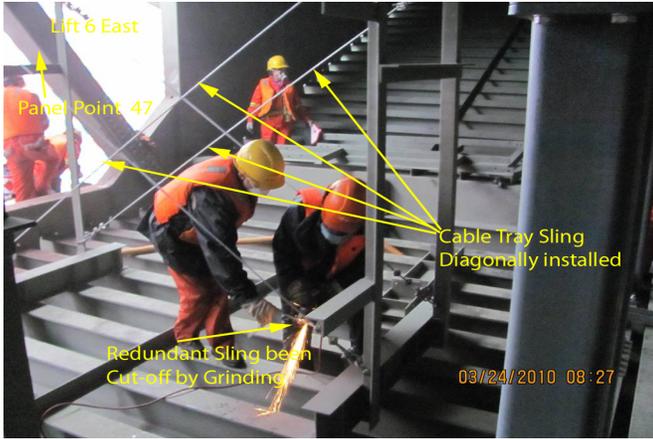
Note: Please refer the attached pictures for more comprehensive details.

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



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Summary of Conversations:

No relevant conversations.

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 T Sang 1500-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By: Math,Manjunath

Quality Assurance Inspector

Reviewed By: Miller,Mark

QA Reviewer