

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-016082**Date Inspected:** 08-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), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang and Zhu Zhong Hai**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

Incident Report generated at Segment 9BW

This Quality Assurance (QA) Inspector wrote an Incident Report for Intermediate Diaphragm being out of flatness.

The Intermediate Diaphragm was identified as the X36A which is located at Corner Assembly CA59A at the Counter Weight side at Panel Point (PP) 75.5. Please reference the Incident Report #

04-0120F4_TL-15_B278_08-08-2010_CA_Intermediate Diaphragm_9BW_PP 75.5_Out_of_Flatness dated August 08, 2010.

Please reference the pictures attached for more comprehensive details

Segment 10AE

This QA Inspector witnessed the final bolt tension verification on bolts connecting the T-Ribs Clips to Floor Beam at Side Panel (Cross Beam and Bike Path side) and Bottom Panel at the Panel Points (PP) 86, PP 87 and PP 88 for

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Segment 10AE. 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. 00447 dated August 08, 2010.

The bolt sizes used were M16 x 45 RC Lot # DHGM160008 and the final torque value established was 200 N-m.

The bolt sizes used were M16 x 50 RC Lot # DHGM160004 and the final torque value established was 180 N-m.

The bolt sizes used were M16 x 65 RC Lot # DHGM160006 and the final torque value established was 180 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 9AW

This QA Inspector performed Green Tag Dimension Control Inspection along with Caltrans QA Inspector Mr. Manoj Prabhune for the Segment 9AW from Panel Point (PP) 71.25 to PP 73.25 at the following locations:

The skin flatness was verified and measured across the longitudinal butt weld at Side Panel (SP) to Corner Assembly (CA) at the Cross Beam (CB) and Counter Weight (CW) side from Panel Point (PP) 71.25 to PP 73.25. The QA Inspector measured the skin flatness using 600mm Straight Edge.

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 9AE

This QA Inspector performed Green Tag Dimension Control Inspection along with Caltrans QA Inspector Mr. Manoj Prabhune for the Segment 9AE from Panel Point (PP) 71.25 to PP 73.25 at the following locations:

The skin flatness was verified and measured across the longitudinal butt weld at Side Panel (SP) to Corner Assembly (CA) at the Cross Beam (CB) and Bike Path (BK) side from Panel Point (PP) 71.25 to PP 73.25. The QA Inspector measured the skin flatness using 600mm Straight Edge.

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 9DW to Segment 9EW

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBW9C-007. The welder identification was 067765 and 067609 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as the Side Panel Counter Weight side, transverse splice weld. Please reference the pictures attached for more comprehensive details.

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Segment 9DW to Segment 9EW

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBW9C-006. The welder identification was 066038 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as the Side Panel Counter Weight side, transverse splice weld.

Segment 9CW

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as SEG053A-011. The welder identification was 067752 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as the Side Panel to Bottom Panel at W3 location, Counter Weight side.

Segment 9DW

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as SEG055A-044. The welder identification was 067752 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as the Side Panel to Bottom Panel at W3 location, Counter Weight side.

Segment 9CW

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as SEG053A-012. The welder identification was 067764 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as the Side Panel to Bottom Panel at W4 location, Cross Beam side.

Segment 9DW

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as SEG055A-045. The welder identification was 067764 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as the Side Panel to Bottom Panel at W4 location, Cross Beam side.

Segment 9EW

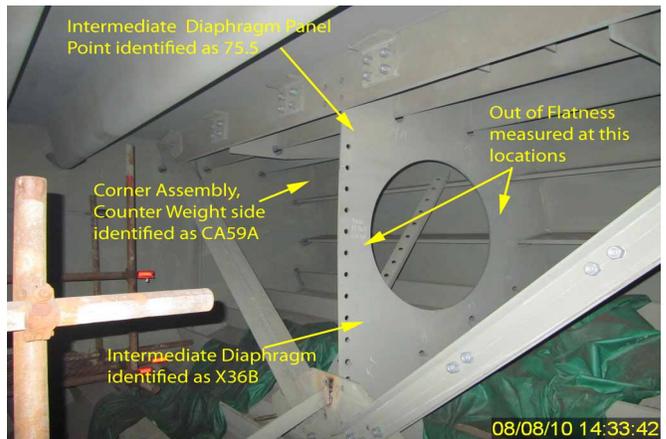
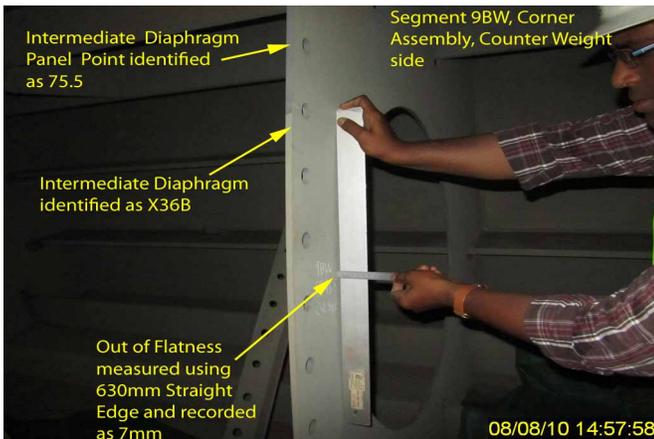
This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a

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Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as CA067-002. The welder identification was 037932 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-Tc-U4b-FCM-1. The piece mark was identified as the Corner Assembly hold back area at Work Point W2 on the Counter Weight side.

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 150000422372, who represents the Office of Structural Materials for your project.

Inspected By: Math,Manjunath

Quality Assurance Inspector

Reviewed By: Peterson,Art

QA Reviewer
