

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-024145**Date Inspected:** 02-Jun-2011**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

<b>CWI Name:</b>	N/A	<b>CWI Present:</b>	Yes	No
<b>Inspected CWI report:</b>	Yes No N/A	<b>Rod Oven in Use:</b>	Yes No N/A	
<b>Electrode to specification:</b>	Yes No N/A	<b>Weld Procedures Followed:</b>	Yes No N/A	
<b>Qualified Welders:</b>	Yes No N/A	<b>Verified Joint Fit-up:</b>	Yes No N/A	
<b>Approved Drawings:</b>	Yes No N/A	<b>Approved WPS:</b>	Yes No N/A	
		<b>Delayed / Cancelled:</b>	Yes No N/A	
<b>Bridge No:</b>	34-0006	<b>Component:</b>	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

BAY 11 – (Skid More Test)

This QA Inspector witnessed Bolt Testing for ASTM A325 Grade. Observed ZPMC QC Mr. Zhang Hai Jung performing bolts testing and ZPMC QC Inspector Mr. Fan Xiao Hun generating report against the testing.

The testing of bolts was performed to determining Nut Rotation from Snug-Tight condition for Turn-of-Nut Pre-tensioning and High Tension bolt capability verification test.

Bolt assembly identified as ASTM A325 (High Strength Bolt), Bolt Assembly comprises of (a Bolt, a Nut and a Washer).

Bolt testing was performed on a Unit: Skidmore-Wilhelm; Model: HT; Serial Number: 1014 (Calibration Expiration due date on August 23, 2011) and Torque Wrench identified as XO-486 and Torque Wrench with Dial gauge on it is identified as XO-2 (Calibration Expiration due date on October 03, 2011).

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Tested bolt sizes were identified as M30x75 RC Set# DHGM300006.

Tested bolt sizes were identified as M30x100 RC Set# DHGM300012.

Tested bolt sizes were identified as M30x130 RC Set# DHGM300014.

Tested bolt sizes were identified as M30x75 RC Set# DHGM300007.

5 bolt assemblies were tested per lot.

After determining Rotation Capacity Test, Inspection Report # 20 for bolt size M30x75 RC Set# DHGM300006 was generated by ZPMC QC.

After determining Rotation Capacity Test, Inspection Report # 16 for bolt size M30x100 RC Set# DHGM300012 was generated by ZPMC QC.

After determining Rotation Capacity Test, Inspection Report # 17 for bolt size M30x130 RC Set# DHGM300014 was generated by ZPMC QC.

After determining Rotation Capacity Test, Inspection Report # 19 for bolt size M30x75 RC Set# DHGM300007 was generated by ZPMC QC.

After determining Nut Rotation from Snug-Tight condition for Turn-of-Nut Pre-tensioning Inspection Report # 352 for bolt size M30x75 RC Set# DHGM300006 was generated by ZPMC QC.

After determining Nut Rotation from Snug-Tight condition for Turn-of-Nut Pre-tensioning Inspection Report # 349 and 350 for bolt size M30x100 RC Set# DHGM300012 was generated by ZPMC QC.

After determining Nut Rotation from Snug-Tight condition for Turn-of-Nut Pre-tensioning Inspection Report # 347 and 348 for bolt size M30x130 RC Set# DHGM300014 was generated by ZPMC QC.

After determining Nut Rotation from Snug-Tight condition for Turn-of-Nut Pre-tensioning Inspection Report # 351 for bolt size M30x75 RC Set# DHGM300007 was generated by ZPMC QC.

Please reference the pictures attached for more comprehensive details.

The generated reports were submitted to the Caltrans Lead Inspector Mr. Mark Miller 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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## 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 15000422372, 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:** Miller,Mark

QA Reviewer