

**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-016804**Date Inspected:** 17-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

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

Segment 10AE to 10BE (Transverse Splice T-Ribs)

This QA Inspector performed Dimension Control Inspection along with ABF QA personnel on the Transverse Splice T-Ribs to T-Ribs for the Segment 10AE to Segment 10BE between Panel Point (PP) 88 to PP 89 at the following locations:

Work Point E1 towards Work Point E3 (Side Panel Bike Path Side) total 19 T-Ribs.

Work Point E3 towards Work Point E4 (Bottom Panel) total 18 T-Ribs.

Work Point E4 towards Work Point E6 (Side Panel Cross Beam Side) total 19 T-Ribs.

The QA Inspector measured the Vertical Offset using 1(One) Meter Straight Edge and measured the Horizontal Offset on the web using a Bridge Cam gauge.

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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 10CW to Segment 11AW (U-Rib to U-Rib)

This QA Inspector performed Dimension Control Inspection for measuring offset along with ABF QA Inspector on the U-Rib to U-Rib from Cross Beam side towards Bike Path side at a total of 39 locations on Segment 10CW to Segment 11AW between Panel Points (PP) 94 to PP 95 at the following locations:

The offset was measured within 50mm from the Deck Panel on U-Rib on the South and North side. The QA Inspector measured the offset using 1(One) meter 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.

Anchorage Bearing Stiffeners at Machine Shop # 1(for Lift 14- East and West)

This QA Inspector performed Dimension Control Inspection to check and measure the Anchorage Bearing Stiffeners at machine shop # 1. The following dimensional inspection was performed.

The scribe line distances of anchor rod were measured.

The offset were measured from scribe line.

The vertical spacing between the bearing stiffeners at four locations were measured.

The vertical offset between bearing stiffeners at two locations were measured.

The QA Inspector verified the surface condition met the mill to bear condition at MTB1, MTB2 and MTB3 locations.

The Anchorage Bearing Stiffeners piece marks are identified below.

-Anchorage Bearing Stiffeners identified as SA3351C and top plate piece mark identified as X4737AA.

-Anchorage Bearing Stiffeners identified as SA3349C and top plate piece mark identified as X4737C.

-Anchorage Bearing Stiffeners identified as SA3425A and top plate piece mark identified as X5025A.

-Anchorage Bearing Stiffeners identified as SA3356A and top plate piece mark identified as X4744A.

-Anchorage Bearing Stiffeners identified as SA3348G and top plate piece mark identified as X4735G.

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- Anchorage Bearing Stiffeners identified as SA3421F and top plate piece mark identified as X5028F.
- Anchorage Bearing Stiffeners identified as SA3347A and top plate piece mark identified as X4733A.
- Anchorage Bearing Stiffeners identified as SA3355G and top plate piece mark identified as X4742R.
- Anchorage Bearing Stiffeners identified as SA3428F and top plate piece mark identified as X5037P.
- Anchorage Bearing Stiffeners identified as SA3348E and top plate piece mark identified as X4735E.
- Anchorage Bearing Stiffeners identified as SA3421G and top plate piece mark identified as X5028G.
- Anchorage Bearing Stiffeners identified as SA3423A and top plate piece mark identified as X5030K.
- Anchorage Bearing Stiffeners identified as SA3347B and top plate piece mark identified as X4733B.
- Anchorage Bearing Stiffeners identified as SA3355E and top plate piece mark identified as X4742P.

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.

### Lift 9 West (X37B Brackets)

This QA Inspector performed Dimension Control Inspection for the Segment 9AW, Segment 9BW, Segment 9CW, Segment 9DW and Segment 9EW and measured the distance between road barrier bolt hole drilled at X37B from deck panel to the cope hole at X37B bracket installed at Corner Assembly at east and west side of the X37B brackets at following locations and verified the locations where ZPMC has taken corrective action for rectifying the out of tolerance areas.

At Panel Points(PP) 71.25 and PP 71.75, Counter Weight side.

At Panel Points(PP) 71.25 and PP 71.75, Cross Beam side.

At Panel Points(PP) 72.25 and PP 72.75, Counter Weight side.

At Panel Points(PP) 72.25 and PP 72.75, Cross Beam side.

At Panel Points(PP) 73.25 and PP 73.75, Counter Weight side.

At Panel Points(PP) 73.25 and PP 73.75, Cross Beam side.

At Panel Points(PP) 74.25 and PP 74.75, Counter Weight side.

At Panel Points(PP) 74.25 and PP 74.75, Cross Beam side.

At Panel Points(PP) 75.25 and PP 75.75, Counter Weight side.

At Panel Points(PP) 75.25 and PP 75.75, Cross Beam side.

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At Panel Points(PP) 76.25 and PP 76.75, Counter Weight side.

At Panel Points(PP) 76.25 and PP 76.75, Cross Beam side.

At Panel Points(PP) 77.25 and PP 77.75, Counter Weight side.

At Panel Points(PP) 77.25 and PP 77.75, Cross Beam side.

At Panel Points(PP) 78.25 and PP 78.75, Counter Weight side.

At Panel Points(PP) 78.25 and PP 78.75, Cross Beam side.

At Panel Points(PP) 79.25 and PP 79.75, Counter Weight side.

At Panel Points(PP) 79.25 and PP 79.75, Cross Beam side.

At Panel Points(PP) 80.25 and PP 80.75, Counter Weight side.

At Panel Points(PP) 80.25 and PP 80.75, Cross Beam side.

At Panel Points(PP) 81.25 and PP 81.75, Counter Weight side.

At Panel Points(PP) 81.25 and PP 81.75, Cross Beam side.

At Panel Points(PP) 82.25 and PP 82.75, Counter Weight side.

At Panel Points(PP) 82.25 and PP 82.75, Cross Beam side.

At Panel Points(PP) 83.25 and PP 83.75, Counter Weight side.

At Panel Points(PP) 83.25 and PP 83.75, Cross Beam side.

At Panel Points(PP) 84.25 and PP 84.75, Counter Weight side.

At Panel Points(PP) 84.25 and PP 84.75, Cross Beam side.

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.

Lift 9 East (X37B Brackets)

This QA Inspector performed Dimension Control Inspection for the Segment 9AE, Segment 9BE, Segment 9CE, Segment 9DE and Segment 9EE and measured the distance between road barrier bolt hole drilled at X37B from deck panel to the cope hole at X37B bracket installed at Corner Assembly at east and west side of the X37B brackets at following locations and verified the locations where ZPMC has taken corrective action for rectifying the out of tolerance areas.

At Panel Points(PP) 71.25 and PP 71.75, Cross Beam Side.

At Panel Points(PP) 71.25 and PP 71.75, Bike Path side.

At Panel Points(PP) 72.25 and PP 72.75, Cross Beam Side.

At Panel Points(PP) 72.25 and PP 72.75, Bike Path side.

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At Panel Points(PP) 73.25 and PP 73.75, Cross Beam Side.

At Panel Points(PP) 73.25 and PP 73.75, Bike Path side.

At Panel Points(PP) 74.25 and PP 74.75, Cross Beam Side.

At Panel Points(PP) 74.25 and PP 74.75, Bike Path side.

At Panel Points(PP) 75.25 and PP 75.75, Cross Beam Side.

At Panel Points(PP) 75.25 and PP 75.75, Bike Path side.

At Panel Points(PP) 76.25 and PP 76.75, Cross Beam Side.

At Panel Points(PP) 76.25 and PP 76.75, Bike Path side.

At Panel Points(PP) 77.25 and PP 77.75, Cross Beam Side.

At Panel Points(PP) 77.25 and PP 77.75, Bike Path side.

At Panel Points(PP) 78.25 and PP 78.75, Cross Beam Side.

At Panel Points(PP) 78.25 and PP 78.75, Bike Path side.

At Panel Points(PP) 79.25 and PP 79.75, Cross Beam Side.

At Panel Points(PP) 79.25 and PP 79.75, Bike Path side.

At Panel Points(PP) 80.25 and PP 80.75, Cross Beam Side.

At Panel Points(PP) 80.25 and PP 80.75, Bike Path side.

At Panel Points(PP) 81.25 and PP 81.75, Cross Beam Side.

At Panel Points(PP) 81.25 and PP 81.75, Bike Path side.

At Panel Points(PP) 82.25 and PP 82.75, Cross Beam Side.

At Panel Points(PP) 82.25 and PP 82.75, Bike Path side.

At Panel Points(PP) 83.25 and PP 83.75, Cross Beam Side.

At Panel Points(PP) 83.25 and PP 83.75, Bike Path side.

At Panel Points(PP) 84.25 and PP 84.75, Cross Beam Side.

At Panel Points(PP) 84.25 and PP 84.75, Bike Path side.

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.

**Summary of Conversations:**

No relevant conversations were reported on this date.

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## 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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<b>Inspected By:</b>	Math,Manjunath	Quality Assurance Inspector
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<b>Reviewed By:</b>	Peterson,Art	QA Reviewer
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