

**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-009983**Date Inspected:** 03-Nov-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang and Xu Yumin**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 Trail 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) Assembly Area

Lift 2 East

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for UT Rejected Transverse Segment to Segment weld for Segment 2AE to 2BE, the repair areas at 1 locations at Bottom Panel and Weld No. is identified as OBE2A-004. Welders were identified as 048659 and 054467. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-1G (1F)-FCM-Repair-

1. The parameters noted down by QC found in compliance with WPS.

Excavation Performed from Internal Side of OBG at one location.

1. Y Location = 2740mm, 2805mm and 2815mm.

Lift 2 East

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# WELDING INSPECTION REPORT

( Continued Page 2 of 4 )

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This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for UT Rejected Transverse Segment to Segment weld for Segment 2AE to 2BE, the repair areas at 6 locations at Bottom Panel and Weld No. is identified as OBE2A-004. Welders were identified as 048659. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-4G (4F)-FCM-Repair-1. The parameters noted down by QC found in compliance with WPS.

Excavation Performed from External Side at Six locations.

1. Y Location = 40mm.
2. Y Location = 540mm.
3. Y Location = 1235mm, 1350 and 1450mm.
4. Y Location = 2300mm.
5. Y Location = 3385mm, 3455mm, 3510mm and 3520mm.
6. Y Location = 7225mm.

Lift 2 East

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for UT Rejected Transverse Segment to Segment weld for Segment 2AE to 2BE, the repair areas at 2 locations at Side Panel Cross Beam side and Weld No. is identified as OBE2A-005. Welders were identified as 049769. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-3G (3F)-FCM-Repair-1. The parameters noted down by QC found in compliance with WPS.

Excavation Performed from Internal Side at Two location.

1. Y Location = 215mm.
2. Y Location = 2080mm.

Segment 1AW to 1BW

This Quality Assurance (QA) Inspector observed Bottom Panel Transverse Segment weld OBW1A-008 from Y Datum 0 to 8500 excavated from internal side and grinding is performed for MT test.

Segment 1AW to 1AAW

This QA Inspector observed at Segment at 1AAW the Retro plate those which were welded earlier flame cut and removed and new fitted and welding is in progress.

Segment 6AE

This QA Inspector observed at Segment 6AE between PP 38 and 39 Bike Path side for Corner Assembly back to back Cross and Vertical Angles installation has been performed by Temporary and Permanent ASTM A 325 Grade bolts.

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## WELDING INSPECTION REPORT

( Continued Page 3 of 4 )

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### Segment 6AE

This QA Inspector observed at Segment 6AE at PP 37 Bottom Panel T-ribs hold back areas grinding is performed for removing the paint and surface preparation for welding.

### Segment 5CE to 5BE

This QA Inspector observed at Segment 5CE to 5BE between PP 34 and PP 35 Cross Beam side Longitudinal Diaphragm welded at Floor Beam CJP Weld UT test been performed by ZPMC.

### Segment 5AE

This QA Inspector observed at Segment 5AE between PP 29 and PP 30 Side Panel to Side Panel Bike Path side T-Ribs Splice plate installed and ASTM A 325 Grade Bolt been installed and snug and final tightening has been performed.

### Bike Path

This QA Inspector observed Bike Path Cantilever BK001-018-3GK Base Plate grinding has been performed for the parts of Cantilever is flame cut and reason to be confirmed by Caltrans Engineer.

### Segment 5CE

This QA Inspector observed at Segment 5CE Cross Beam side for Corner Assembly back to back angles installation with original bolts ASTM A 325 Grade has been performed.

### Segment 5CW

This QA Inspector observed at Segment 5CW Deck Panel Diaphragm to Floor Beam connecting weld MT performed by ZPMC and ABF repair has been carried out and flush grind to fillet weld profile was in progress.

### Segment 5CW to 5BW

This QA Inspector observed at Segment 5CW to 5BW between PP 34 and PP 35 U-Rib to U-Rib match drilling has been performed for internal Splice Plate.

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

### Summary of Conversations:

No relevant conversations.

### Comments

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# WELDING INSPECTION REPORT

( Continued Page 4 of 4 )

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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 , 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>	Carreon,Albert	QA Reviewer
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