

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-016665**Date Inspected:** 08-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), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. Tian Lei**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:** Orthotropic Box Girder (OBG)**Summary of Items Observed:**

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

BAY- 2

This QA Inspector Randomly observed the following work in progress:

Flux Cored Arc Welding (FCAW) of weld joint VP3014-001-034. Welder is identified as 058245. ZPMC Quality Control (QC) is identified as Mr. Zhu Jun. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2232-TC-U4b-F.

FCAW of weld joint VP3011-001-001. Welder is identified as 045209. ZPMC Quality Control (QC) is identified as Mr. Zhu Jun. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2232-TC-U4b-F.

FCAW of weld joint VP3015-001-003. Welder is identified as 045276. ZPMC Quality Control (QC) is identified as Mr. Zhu Jun. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2232-TC-U4b-F.

BAY- 3

FCAW of weld joint FB3280-001-045. Welder is identified as 206623. ZPMC Quality Control (QC) is identified as Mr. Zhang Yaxu. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

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FCAW of weld joint FB3285-001-013. Welder is identified as 217805. ZPMC Quality Control (QC) is identified as Mr. Zhang Yaxu. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

BAY- 7

FCAW of weld joint DP3179-001-001,002. Welder is identified as 205386. ZPMC Quality Control (QC) is identified as Mr. Xu Hai Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint DP3179-001-009,010. Welder is identified as 053742. ZPMC Quality Control (QC) is identified as Mr. Xu Hai Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint W2-SB1-006-126~131. Welder is identified as 048625. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint W2-SB1-005-126~131. Welder is identified as 204342. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

During the Caltrans QA Random in-process observations of the fabrication of the steel barriers, this QA observed ZPMC has welded over the snipe areas on several steel barrier sections. The welds are fillet welds joining the internal stiffeners to the skins. The barriers affected by this condition are identified as W2-SB1G-001, W2-SB6-001, W2-SB1-001 and W2-SB5-001. This QA informed American Bridge/Fluor (AB/F) QA Lead Inspector identified as Mr. Mike Williams of this issue. Mr. Williams informed this QA that ABF will submit an RFI concerning this issue. Additionally, Mr. Williams has instructed ZPMC workers and QC to leave the snipe areas open on all future barriers, as specified in the contract documents. This QA later observed ZPMC welders appeared to perform the welding in the snipe areas on other barriers in a manner compliant with the contract documents. Refer the attached photos for reference.

BAY- 8

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 06616.

Magnetic Particle Testing (MT)

This QA performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The members are identified as OBG Bike Path weld Components. Total number of welds MT Tested: 25 No's. The weld designations are review as follows:

1. BK004A3-055-025, 026
2. BK004A3-055-051, 052

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3. BK004A4-055-015

4. BK004A7-055-142, 143, 158, 159, 007, 008, 013, 014, 019, 020, 025, 026, 168, 230, 217, 222, 226, 140, 141,215.

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



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

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**Inspected By:** Prabhu,Surendra

Quality Assurance Inspector

**Reviewed By:** Hall,Steven

QA Reviewer