

**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-015686**Date Inspected:** 14-Jul-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. Xu xian ping**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:

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This QA Inspector Randomly observed the following work in progress:

Shielded Metal Arc Welding (SMAW) buttering welding of Traveler Rail 11TR3-015. Welder is identified as 051359. ZPMC Quality Control (QC) is identified as Mr. Shen jian guo. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-SMAW-1G (1F)-Repair. The buttering was been performed as per the Critical Welding Report (CWR) No: B-CWR1102.

ZPMC personnel heat straightening OBG member identified as 10TR1-006. Distortion appeared to be caused by welding of the material. ZPMC Quality Control (QC) inspector identified as Mr. Shen jian guo was present to monitor the heat straightening process. The heat straightening appeared to comply with Heat Straightening Report (HSR) HSR1 (B) 8076.

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SMAW of weld joint WJF-0-111. Welder is identified as 057795. ZPMC Quality Control (QC) is identified as Mr. Zhao jian Hang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-3311-TC-P4.

Flux Cored Arc Welding (FCAW) of weld joint BP3041-001-046,047. Welder is identified as 217185. ZPMC Quality Control (QC) is identified as Mr. Zhao jian Hang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132.

ZPMC personnel heat straightening OBG member identified as EP3021A. Distortion appeared to be caused by welding of the material. ZPMC Quality Control (QC) inspector identified as Mr. Shu Yang Hua was present to monitor the heat straightening process. The heat straightening appeared to comply with Heat Straightening Report (HSR) HSR1 (B) 8808.

ZPMC personnel heat straightening OBG member identified as DP3082A. Distortion appeared to be caused by welding of the material. ZPMC Quality Control (QC) inspector identified as Mr. Shu Yang Hua was present to monitor the heat straightening process. The heat straightening appeared to comply with Heat Straightening Report (HSR) HSR1 (B) 8873.

During the Caltrans Quality Assurance in-process observations of the fabrication of OBG Bottom Plate Lift 13E, this Quality Assurance Inspector observed ZPMC personnel have wrapped the welds around the ends of connecting stiffeners. Approved shop drawing BP3041 does not specify wrapping the welds. The affected Bottom Plate welds are identified as BP3041-001-038,039,058~061.

This QA Inspector generated an incident report on this date, for further information see the incident report and the attached photos.

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FCAW of weld joint EP3013-001-005,006. Welder is identified as 062447. ZPMC Quality Control (QC) is identified as Mr. Guopan. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint EP3013-001-017,018. Welder is identified as 204342. ZPMC Quality Control (QC) is identified as Mr. Guopan. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint EP3013-001-025,026. Welder is identified as 205386. ZPMC Quality Control (QC) is identified as Mr. Guopan. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

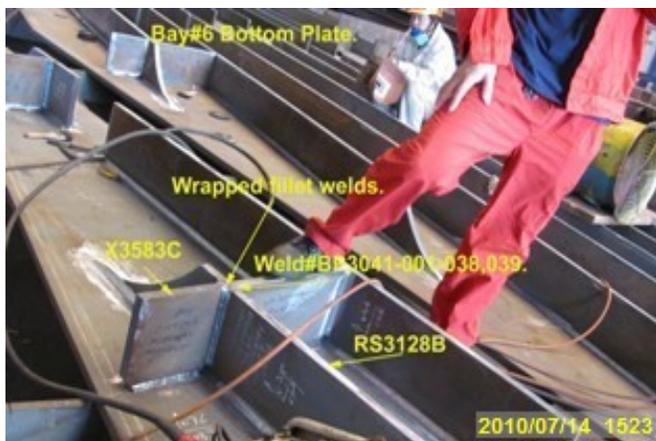
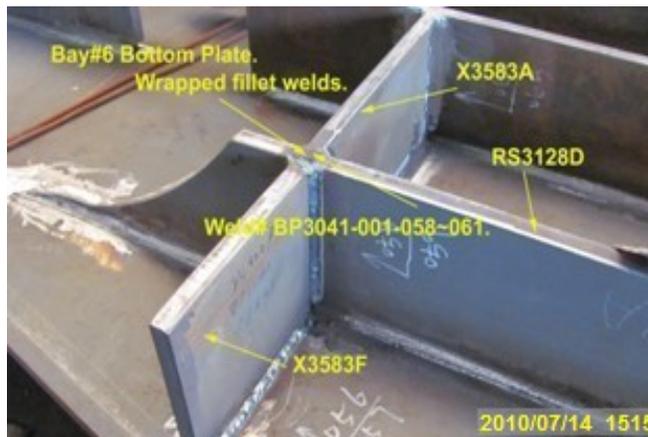
BAY- 8

FCAW of weld joint BK004A6-056-029,030. Welder is identified as 054459. ZPMC Quality Control (QC) is identified as Mr. Feng Ya Jun. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132.

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



## Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

## 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

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your project.

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<b>Inspected By:</b>	Prabhu,Surendra	Quality Assurance Inspector
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<b>Reviewed By:</b>	Hall,Steven	QA Reviewer
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