

**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-018012**Date Inspected:** 19-Oct-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. Li zhi jiang**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- 1

This QA Inspector Randomly observed the following work in progress:

Flux Cored Arc Welding (FCAW) of weld joint E2-SB7-027-128,129. Welder is identified as 059450. ZPMC Quality Control (QC) is identified as Mr. Ai wei. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

BAY- 3

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 07029.

Magnetic Particle Testing (MT)

This QA performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality

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Control (QC) personnel. This QA generated MT report for this date. The members are identified as OBG Floor beam weld Components. Total number of welds MT Tested: 30 No's. The weld designations are review as follows:

1. FB3263-001-006,007,008,010,011~014,019~022,025,028,033,042~045,051,054,055,058,059,062~067.

FCAW of weld joint FB3286-001-100. Welder is identified as 062782. ZPMC Quality Control (QC) is identified as Mr. Zhan hai feng. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2233-TC-U5-F.

FCAW of weld joint FB3286-001-245. Welder is identified as 062782. ZPMC Quality Control (QC) is identified as Mr. Zhan hai feng. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2233-TC-U5-F.

BAY- 6

FCAW of weld joint CB3003K-001-007,008. Welder is identified as 215689. ZPMC Quality Control (QC) is identified as Mr. Shu yang hua. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2132.

BAY- 7

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 07017.

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 Steel barrier weld Components. Total number of welds MT Tested: 70 No's. The weld designations are review as follows:

1. W2-SB9-001-074,075,081,084,089,115,131.
2. W2-SB9-002-074,075,081,084,089,115,131.
3. W2-SB9-003-074,075,081,084,089,115,131.
4. W2-SB9-004-074,075,081,084,089,115,131.
5. W2-SB9-005-074,075,081,084,089,115,131.
6. W2-SB9-007-074,075,081,084,089,115,131.
7. W2-SB10-001-074,075,081,084,089,115,131.
8. W2-SB10-002-074,075,081,084,089,115,131.
9. W2-SB10-003-074,075,081,084,089,115,131.
10. W2-SB10-004-074,075,081,084,089,115,131.

During QA MT review of welds located on Orthotropic Box Girder (OBG) Steel barrier W2-SB9-003, this QA

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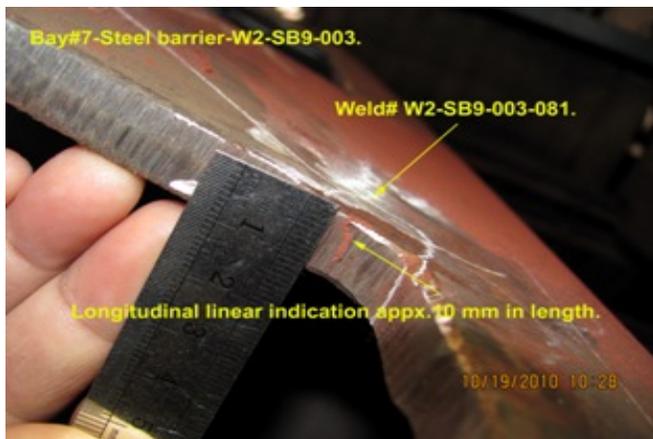
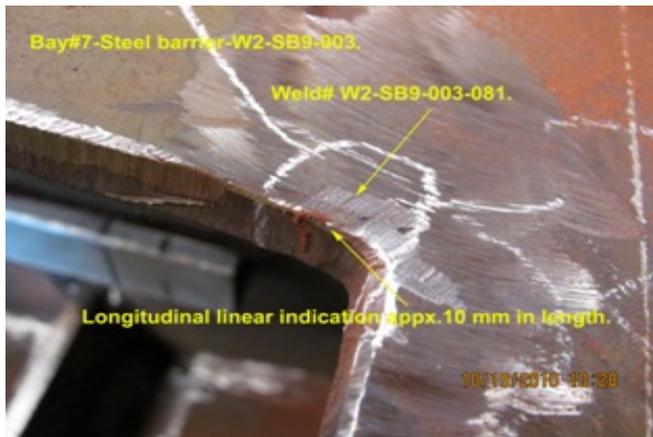
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Inspector observed One (1) Longitudinal surface linear indication measuring approximately 10 mm in length. The weld is identified as: W2-SB9-003-081. The weld is a Complete Joint Penetration weld joining to base plate to W2-P11A. The “Y” location is 0 from the nearest end of the weld. This indication has been ground out and MT re tested found to be acceptable. The indication is located within the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC QC personnel are required to perform 10% MT inspection of these welds. Refer the attached photos for reference.

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 your project.

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**Inspected By:** Prabhu,Surendra

Quality Assurance Inspector

**Reviewed By:** Hall,Steven

QA Reviewer