

**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-017955**Date Inspected:** 11-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) Chanxing Island**Location:** Shanghai, China**CWI Name:** Mr. Xu Tao**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 Bike Path**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Bay 19

This QA Inspector observed the following work in progress:

Flux Core Arc Welding (FCAW) welding of weld joint BK004A2-005-015 located on Bike Path. Welder is identified as 208781. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS -B-T-2132-2-Plug.

FCAW welding of weld joint BK005A2-001-019 located on Bike Path. Welder is identified as 062904. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS -B-T-2132-2-Plug.

FCAW welding of weld joint BK005A2-001-021 located on Bike Path. Welder is identified as 062755. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS -B-T-2132.

FCAW welding of weld joint BK005A2-005-021 located on Bike Path. Welder is identified as 062732. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with

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the Applicable WPS -B-T-2132.

FCAW repair welding of weld joint SB020-086-004 located on Suspender Bracket. Welder is identified as 062762. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS -345-FCAW-2G (2F)-Repair, which is used as per Critical Welding Repair Report (CWR) B-CWR-1915.

FCAW repair welding of weld joint SB017-088-007 located on Suspender Bracket. Welder is identified as 062755. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS -345-FCAW-2G (2F)-Repair, which is used as per Critical Welding Repair Report (CWR) B-CWR-1915.

FCAW repair welding of weld joint SB021-092-004 located on Suspender Bracket. Welder is identified as 062752. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS -345-FCAW-2G (2F)-Repair, which is used as per Critical Welding Repair Report (CWR) B-CWR-1915.

FCAW repair welding of weld joint SB018-092-031 and 037 located on Suspender Bracket. Welder is identified as 062739. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS -345-FCAW-2G (2F)-Repair, which is used as per Welding Repair Report (WRR) B-WR-15843/44.

FCAW repair welding of weld joint SB018-094-004 located on Suspender Bracket. Welder is identified as 062808. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS -345-FCAW-2G (2F)-Repair, which is used as per Welding Repair Report (WRR) B-WR-15828.

FCAW repair welding of weld joint SB018-094-031 and 001 located on Suspender Bracket. Welder is identified as 062808. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS -345-FCAW-1G (1F)-Repair, which is used as per Welding Repair Report (WRR) B-WR-15827.

ZPMC personnel heat straightening OBG Bike path member identified as BK004A-007 deck plates. Distortion appeared to be caused by welding and mishandling/Storage of the material. ZPMC Quality Control (QC) inspector identified as Mr. Xu Tao was present to monitor the heat straightening process. The heat straightening appeared to comply with HSR1 (B) number 9511.

Description of Incident: During the Quality Assurance random work in progress and visual inspection (VT) review of weld located on OBG Bike Path BK004A-010 at Fabrication bay 19, this Quality Assurance Inspector (QA) observed that Bike Path bottom cover plate bended and butchered. And this QA Inspector measured the gap approximately 10mm between BKX7F flange and bottom cover plate. This butcher and distortion appeared to be caused by mishandling and fit up error during the bike path assembly. The butchered weld number is identified as BK004A2-010-018. ZPMC personnel performed plug welding over the bottom cover plates. The welder is identified as 208781. ZPMC QC known about these problem and ZPMC QC is identified as Mr. Xu Tao. See the

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attached pictures.

Visual Inspection after Blast

OBG Segment 11DE

This QA Inspector performed a preliminary random visual inspection on OBG Segment 11DE, after the grit blast of the interior components of the deck panel, floor beams and corner assemblies of this segment. Areas of visual weld defects that will require welding were taped and will be repaired after the coating is applied. ZPMC QC personnel are aware of these areas and were present during the inspection. See the attached picture.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



## Summary of Conversations:

Only general conversation was held between QA and 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 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Kumar,Vibin	Quality Assurance Inspector
<b>Reviewed By:</b>	McClendon,Timothy	QA Reviewer

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