

**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-014328**Date Inspected:** 10-May-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:** Chen Xi**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:**

On this date Caltrans Office of Structural Material (OSM) Quality Assurance (QA) Inspector, D.Sukanthan was present during the time noted above for observations relative to the work being performed.

OBG # BAY 5

This QA inspector received ZPMC Non Destructive Testing (NDT) notification 005702 to perform Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control Personnel. This QA Inspector generated a Ultrasonic Test report for this date. The member is identified as Traveler Rail. The weld tested is identified as follows:

(TR1A-PP103-001)

(TR1A-PP107-001)

(TR2A-PP102-001)

(TR1A-PP101-001)

(TR5B-PP103-004)

(TR2A-PP104-001)

(TR6A-PP104-002)

(TR6A-PP102-002)

(TR1A-PP099-001)

(TR6A-PP106-002)

(TR5A-PP101-004)

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## WELDING INSPECTION REPORT

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This QA Inspector randomly observed the following work in progress:

### OBG # BAY 1

This QA observed ZPMC qualified welding personnel identified as 216872 perform Flux Cored Arc Weld (FCAW) Process on weld joint 20TR1-043-003. ZPMC Quality Control Personnel (QC) identified as Mr. Xiang Feng Feng was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2232-TC-U5-F.

This QA observed ZPMC qualified welding personnel identified as 216575 perform Flux Cored Arc Weld (FCAW) Process on weld joint 20TR2-029-015. ZPMC Quality Control Personnel (QC) identified as Mr. Xiang Feng Feng was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2232-TC-U5-F.

During the Quality Assurance (QA) random in-process visual inspection of Orthotropic Box Girder (OBG) Traveler Rail, this QA inspector discovered the following issue. The base material was damaged on the traveler rail web plate due to cutting beyond the prescribed lines. The attempted repair (gouged area) measured approximately 45mm length. The traveler rail is identified as 20TR2-030. The damaged base metal thickness is 20mm. The location is identified as adjacent to the complete joint penetration (CJP) weld joint 20TR2-030-015. This QA notified ZPMC QA identified as Mr. Zhang wei of this issue and that an incident report would be generated. See attached picture.

### OBG # BAY 2

This QA observed ZPMC qualified welding personnel identified as 045276 perform Flux Cored Arc Weld (FCAW) Process on weld joint FB3231-001-043,044. ZPMC Quality Control Personnel (QC) identified as Mr. Zhu Lin was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2132-3.

This QA observed ZPMC qualified welding personnel identified as 045209 perform Flux Cored Arc Weld (FCAW) Process on weld joint FB3224-001-083. ZPMC Quality Control Personnel (QC) identified as Mr. Zhu Lin was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2232-TC-U4b-F.

### OBG # BAY 3

This QA observed ZPMC qualified welding personnel identified as 050977 perform Flux Cored Arc Weld (FCAW) Process on weld joint FB3106-001-017,018. ZPMC Quality Control Personnel (QC) identified as Mr. Zhang yaxu was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2132-3.

This QA observed ZPMC qualified welding personnel identified as 206386 perform Flux Cored Arc Weld (FCAW) Process on weld joint FB3156-001-001,006. ZPMC Quality Control Personnel (QC) identified as Mr.

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# WELDING INSPECTION REPORT

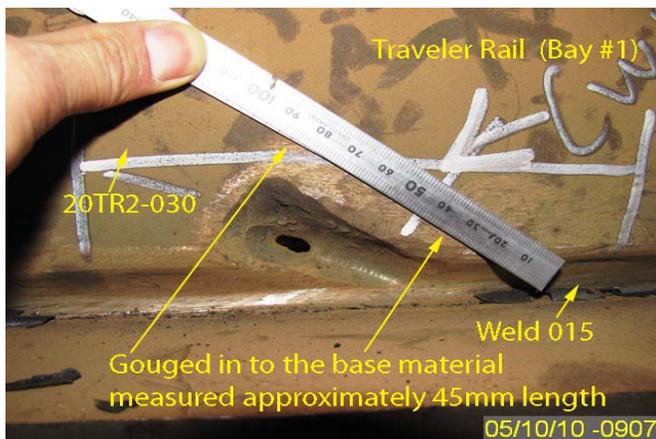
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Zhang yaxu was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2132-3.

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



### Summary of Conversations:

As mention above

### 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 150-00422372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Sukanthan,Dhanasingh

Quality Assurance Inspector

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**Reviewed By:** Hall,Steven

QA Reviewer