

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-018069**Date Inspected:** 21-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:** 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:**

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.

This QA Inspector randomly observed the following work in progress:

OBG # BAY 6

This QA observed ZPMC qualified welding personnel identified as 048625 perform Flux Cored Arc Welding (FCAW) Process on weld joint CB3002L-018-106. ZPMC Quality Control Personnel (QC) identified as Mr. Zheng Zhi Wei 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-2233-TC-U5-F.

This QA observed ZPMC qualified welding personnel identified as 053742 perform Flux Cored Arc Welding (FCAW) Process on weld joint CB3002L-018-137. ZPMC Quality Control Personnel (QC) identified as Mr. Zheng Zhi Wei 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-2233-TC-U5-F.

This QA observed ZPMC qualified welding personnel identified as 051246 perform Flux Cored Arc Welding (FCAW) Process on weld joint CB3002L-018-173. ZPMC Quality Control Personnel (QC) identified as Mr. Zheng Zhi Wei 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-2233-TC-U5-F.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

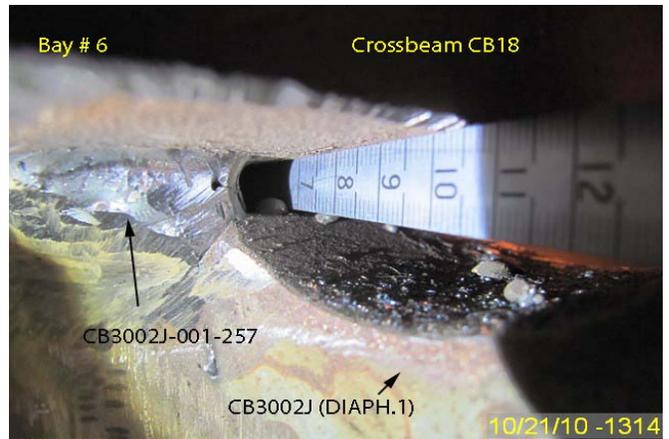
During the Caltrans Quality Assurance in-process observations of the fabrication of Crossbeam CB18, this Quality Assurance Inspector (QA) discovered the following issues. ZPMC personnel performed the Flux Cored Arc Welding process on fillet welds, which the root opening exceeded the maximum tolerance specified in the Welding Procedure Specification (WPS) and welding code. WPS # WPS-B-T-2134 and AWS D1.5 2002 specifies a root opening maximum of 5mm. The root openings on twenty six (26) welded joints were measured between 8.5mm and 10mm. The affected welds are identified as CB3002J-001- welds 253, 254, 257, 258, 261, 262, 075 and 076. CB3002J-002- welds 251, 252, 259, 260, 073 and 074. CB3002K-003- welds 251, 252, 255, 256, 167 and 168. CB3002K-004- Welds 251, 252, 255, 256, 073 and 074. This QA notified ZPMC QC identified as Mr. Huang Min of this issue and that an incident report would be generated. See attached pictures.

OBG # BAY 8

This QA observed ZPMC qualified welding personnel identified as 054459 perform Flux Cored Arc Welding (FCAW) Process on weld joint BK004A6-054-061,070. ZPMC Quality Control Personnel (QC) identified as Mr. Feng ya jun 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-2233-TC-U4b-F.

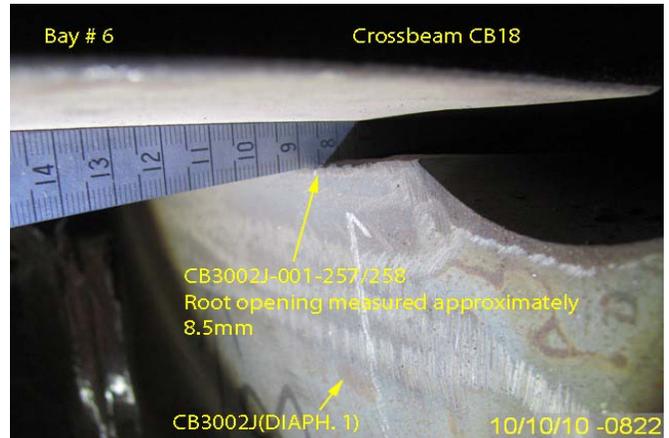
This QA observed ZPMC qualified welding personnel identified as 500405 perform Flux Cored Arc Welding (FCAW) Process on weld joint BK004A8-054-080,082. ZPMC Quality Control Personnel (QC) identified as Mr. Feng ya jun was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2233-TC-U4b-F

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



WELDING INSPECTION REPORT

(Continued Page 3 of 3)



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.

Inspected By: Sukanthan,Dhanasingh

Quality Assurance Inspector

Reviewed By: Hall,Steven

QA Reviewer