

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-010546**Date Inspected:** 03-Dec-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**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.

This QA Inspector randomly observed the following work in progress:

OBG # CROSS BEAM CB01

This crossbeam appears to be complete and has been loaded on the ship.

OBG # CROSS BEAM CB02

This crossbeam appears to be complete and has been loaded on the ship.

OBG # CROSS BEAM CB03

This crossbeam appears to be complete and has been loaded on the ship.

OBG # CROSS BEAM CB04

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

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OBG # CROSS BEAM CB05

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG # CROSS BEAM CB06

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG # CROSS BEAM CB07

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG # CROSS BEAM CB08

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG # CROSS BEAM CB09

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG # CROSS BEAM CB10

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG # CROSS BEAM CB11

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG # CROSS BEAM 12

This Quality Assurance inspector (QA) observed ZPMC welding personnel identify as 066179 performing Shield Metal Arc Welding Process (SMAW) spcm material the Complete Joint Penetration (CJP) weld connecting side panel 208A spcm to bottom panel 205A spcm (Corner joint) repair without an approved repair WPS. The weld joint is identified as CB201A-012-005.

This QA Inspector observed that ZPMC Quality Control (QC) Inspector was not present during the Weld repair mention above. The time of QA observations from 10:00 to 11:00. This time frame exceeds the allowable

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maximum time for QC Inspection coverage as required by Section 8-3 of the Special Provisions. This QA inspector informed ZPMC QA identified as Zhang Wei of this issue and that an incident report would be generated.

OBG # CROSS BEAM CB13

This QA observed ZPMC qualified welding personnel identified as 054459 perform Flux Cored Arc Welding Process (FCAW) welding on weld joint CB202G-039-045,046. ZPMC Quality Control Personnel (QC) identified as Mr. Sun Yan Fei 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-2133.

This QA observed ZPMC qualified welding personnel identified as 215082 perform Flux Cored Arc Welding Process (FCAW) welding on weld joint CB202G-039-153,154. ZPMC Quality Control Personnel (QC) identified as Mr. Sun Yan Fei 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-2133.

During random in process visual inspection this QA inspector observed the following fillet weld joint have root gap more than 5mm.

(CB202G-037-043,044 – 12mm Root gap)
(CB202G-037-061,062 – 6.5mm Root gap)
(CB202G-037-081,082 – 6.5mm Root gap)
(CB202G-038-043,044 – 12mm Root gap)
(CB202G-038-055,056 – 7.5mm Root gap)
(CB202G-038-059,060 – 7mm Root gap)
(CB202G-038-061,062 – 9.5mm Root gap)
(CB202G-039-043,044 – 8mm Root gap)
(CB202G-039-051,052 – 10mm Root gap)
(CB202G-039-059,060 – 6mm Root gap)
(CB202G-039-061,062 – 12.5mm Root gap)
(CB202G-039-081,082 – 6mm Root gap)
(CB202G-039-083,084 – 7mm Root gap)
(CB202G-040-049,050 – 10.5mm Root gap)
(CB202G-040-051,052 – 11mm Root gap)
(CB202G-040-053,054 – 5.5mm Root gap)
(CB202G-040-055,056 – 8mm Root gap)
(CB202G-040-057,058 – 6mm Root gap)
(CB202G-040-059,060 – 11mm Root gap)
(CB202G-040-061,062 – 12.5mm Root gap)

OBG # CROSS BEAM CB14

This QA observed that ZPMC is continuing to fit the bottom panel to side panel. No other significant work was being performed on this crossbeam during the time QA was present.

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OBG # CROSS BEAM CB15

This QA observed that ZPMC is continuing to fit the bottom panel to side panel. No other significant work was observed on this crossbeam during the time QA was present.

OBG # CROSS BEAM CB16

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

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.

Inspected By:	Sukanthan,Dhanasingh	Quality Assurance Inspector
Reviewed By:	Hall,Steven	QA Reviewer
