

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-010377**Date Inspected:** 15-Oct-2009**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:	N/A	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 Crossbeams and deck panel	

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

Caltrans QA Task leader requested a summary of the fabrication status of all the OBG crossbeams fabricated to date. The following is a summary of the status of each of the crossbeams currently completed or under construction.

OBG CROSS BEAM CB1

This crossbeam is complete and has been loaded on the ship. This QA is aware of four incident reports concerning this crossbeam. All incident reports have been submitted to the Structural Materials Representative (SMR), on the day the incident occurred, for review and disposition.

OBG CROSS BEAM CB2

This crossbeam is complete and has been loaded on the ship. This QA is aware of two incident reports concerning this crossbeam. All incident reports have been submitted to the Structural Materials Representative (SMR), on the day the incident occurred, for review and disposition.

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OBG CROSS BEAM CB3

This crossbeam is complete and has been loaded on the ship. This QA is aware of seven incident reports concerning this crossbeam. All incident reports have been submitted to the Structural Materials Representative (SMR), on the day the incident occurred, for review and disposition.

OBG CROSS BEAM CB4

This crossbeam is currently in the trial assembly. Fabrication appears to be essentially complete and ZPMC/ABF/CT segment green tagging appears to be complete with the exception of all the “hold back” welds; the “hold back” welds are defined as all of the weld joints at the North and South ends of the crossbeam that were intentionally left unwelded to allow for minor adjustment at the trial assembly stage of fabrication. This QA is aware of three incident reports concerning this crossbeam. All incident reports have been submitted to the Structural Materials Representative (SMR), on the day the incident occurred, for review and disposition.

OBG CROSS BEAM CB5

This crossbeam is currently idle and awaiting blast and paint. It is being stored outside behind OBG assembly bay 14. Fabrication appears to be essentially complete and ZPMC/ABF/CT segment green tagging appears to be complete with the exception of all the “hold back” welds. This QA is aware of eight incident reports concerning this crossbeam. All incident reports have been submitted to the Structural Materials Representative (SMR), on the day the incident occurred, for review and disposition.

OBG CROSS BEAM CB6

This crossbeam is currently idle and awaiting blast and paint. It is being stored outside behind OBG assembly bay 14. Fabrication appears to be essentially complete and ZPMC/ABF/CT segment green tagging appears to be complete with the exception of all the “hold back” welds. This QA is aware of three incident reports concerning this crossbeam. All incident reports have been submitted to the Structural Materials Representative (SMR), on the day the incident occurred, for review and disposition.

OBG CROSS BEAM CB7

The welding on this crossbeam appears to be 100% complete. It is being stored outside behind OBG assembly bay 14. ZPMC is currently performing Visual Testing (VT) and voluntary 100% Magnetic particle Testing (MT) due to the fact that a number of “crack like” indications were discovered by ZPMC MT technicians in the shop. Segment green tagging notification has not yet been offered to Caltrans for this crossbeam. This QA is aware of five incident reports concerning this crossbeam. All incident reports have been submitted to the Structural Materials Representative (SMR), on the day the incident occurred, for review and disposition.

OBG CROSS BEAM CB8

The welding on this crossbeam appears to be 100% complete. It is currently located in OBG sub assembly bay 6. ZPMC is currently performing various weld repairs of discontinuities discovered by ZPMC QC inspectors using

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the VT method. Segment green tagging notification has not yet been offered to Caltrans for this crossbeam. This QA is aware of four incident reports concerning this crossbeam. All incident reports have been submitted to the Structural Materials Representative (SMR), on the day the incident occurred, for review and disposition.

OBG CROSS BEAM CB9

The welding on this crossbeam appears to be approximately 80% complete (needs to be turned over in order to complete welding). It is currently located in OBG sub assembly bay 6. Primarily this crossbeam is idle, however, on occasions ZPMC has been observed performing various weld repairs of discontinuities discovered by ZPMC QC inspectors using the VT method. Segment green tagging notification has not yet been offered to Caltrans for this crossbeam. This QA is aware of two incident reports concerning this crossbeam. All incident reports have been submitted to the Structural Materials Representative (SMR), on the day the incident occurred, for review and disposition.

OBG CROSS BEAM CB10

The welding on this crossbeam appears to be 100% complete. It is being stored outside behind OBG assembly bay 14. Primarily this crossbeam is idle, however, on occasions ZPMC has been observed performing various weld repairs of discontinuities discovered by ZPMC QC inspectors using the VT method. Segment green tagging notification has not yet been offered to Caltrans for this crossbeam. This QA is aware of four incident reports concerning this crossbeam. All incident reports have been submitted to the Structural Materials Representative (SMR), on the day the incident occurred, for review and disposition.

OBG CROSS BEAM CB11

The welding on this crossbeam appears to be approximately 80% complete (this crossbeam was turned over yesterday in order to complete welding). It is currently located in OBG sub assembly bay 5. ZPMC was observed re-installing the scaffolding on the inside today. Segment green tagging notification has not yet been offered to Caltrans for this crossbeam. This QA is aware of one incident report concerning this crossbeam. All incident reports have been submitted to the Structural Materials Representative (SMR), on the day the incident occurred, for review and disposition.

OBG CROSS BEAM CB12

The welding on this crossbeam appears to be approximately 90% complete. It is being stored outside behind bay 19. Random in process VT performed by this QA has exposed numerous welds that do not appear to comply with the contract documents. ZPMC is currently welding on the inside of this crossbeam. Segment green tagging notification has not yet been offered to Caltrans for this crossbeam. This QA is aware of three incident reports concerning this crossbeam. All incident reports have been submitted to the Structural Materials Representative (SMR), on the day the incident occurred, for review and disposition.

OBG CROSS BEAM CB13

This crossbeam is still in the sub-assembly stages. It is currently located in OBG sub assembly bay 8. Bottom

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panel splicing is incomplete. Both side panels are spliced and welded and have floorbeam straight sections tacked in place. The intermediate panel is spliced and welded and has floorbeam straight sections tacked in place. Deck panel is spliced with two joints welded both sides and one joint welded one side only. All of the floorbeam corner sections are fit and welded. Sub-assembly green tagging appears to be approximately 90% complete. This QA is not aware of any incident reports concerning this crossbeam at this time.

OBG CROSS BEAM CB14

This crossbeam is primarily still in the sub-assembly stages. It is currently located in OBG sub assembly bay 3. The side panels have been stood up and tack welded to the deck panel. The intermediate panel is spliced and welded. Bottom panel is spliced and welded. Neither of the last two panels mentioned are fit in assembly yet. All of the floorbeam corner sections are fit and welded. Sub-assembly green tagging appears to be approximately 90% complete. This QA is aware of six incident reports concerning this crossbeam. All incident reports have been submitted to the Structural Materials Representative (SMR), on the day the incident occurred, for review and disposition.

OBG CROSS BEAM CB15

This crossbeam is still in the sub-assembly stages. It is currently located in OBG sub assembly bay 1. Deck panel is spliced and welded both sides at two locations and welded one side at one location. Both side panels are spliced and welded both sides. The intermediate panel is spliced and welded both sides. All of the floorbeam corner sections are fit and welded. ZPMC appears to be having Ultrasonic Testing (UT) issues with the Complete Joint Penetration (CJP) welds on these corner sections. Sub-assembly green tagging appears to be approximately 90% complete. This QA is aware of three incident reports concerning this crossbeam. All incident reports have been submitted to the Structural Materials Representative (SMR), on the day the incident occurred, for review and disposition.

OBG CROSS BEAM CB16

This crossbeam is still in the sub-assembly stages. It is currently located in OBG sub assembly bay 5. Deck panel is spliced and welded both sides at two locations and welded one side at one location. Bottom panel is spliced and welded both sides at two locations and welded one side at one location. Both side panels are spliced and welded both sides. The intermediate panel is spliced and welded both sides. All of the floorbeam corner sections are fit and welded. Sub-assembly green tagging appears to be approximately 90% complete. This QA is aware of one incident report concerning this crossbeam. All incident reports have been submitted to the Structural Materials Representative (SMR), on the day the incident occurred, for review and disposition.

OBG BAY 9

This QA received ZPMC Non Destructive Testing (NDT) notification No. 004404 and performed Ultrasonic Testing (UT) of approximately 10% of the welds previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated a UT report for this date. The weld designations are as follows: DP3031-001-079, 080, 089 and 090. QA did not test all of the welds on this notification. QA performed 10% lot testing of the 25% lot testing performed by ZPMC. Lot testing covered the following welds: DP3031-001-017, 018, 059, 060, 101,

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102, 143, 144, 185, 186, 227, 228, 027, 028, 069, 070, 111, 112, 153, 154, 195, 196, 237, 238, 037, 038, 121, 122, 163, 164, 205, 206, 247, 248, 047, 048, 131, 132, 173, 174, 215, 216, 257 and 258.

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 Eric Tsang (15000422372), who represents the Office of Structural Materials for your project.

Inspected By:	Hall,Steven	Quality Assurance Inspector
Reviewed By:	Patterson,Rodney	QA Reviewer
