

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-015616**Date Inspected:** 15-Jul-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:** Li Yang**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 Segment**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. M. Manikandan was present during the time noted above for observations relative to the work being performed.

OBG # TRIAL ASSEMBLY YARD(Lift 7W)

This QA Inspector along with Mr. Chandrakumar Sudalaimuthu photographed and documented at various locations on lift 7W prior to the shipment of (Voyage 4) en-route to Yerba Buena Island, California, USA. The following locations are where the photographs were taken and the photographs are available for review upon request.

Lift 7 West (Panel Point 49.5 thru Panel point 51) the following sequential members were photographed and documented:

1. Truss post – Crossbeam side of segment 7BW – PP 49.5 and PP 50.5.
2. Corner Assembly – Crossbeam side of segment 7BW – PP 50 and PP 51.
3. Longitudinal Diaphragm - Crossbeam side of segment 7BW – PP 50 and PP 51.
4. Chevron Diagonal members (upper and lower) - Crossbeam side of segment 7BW – PP 50 and PP 51.
5. Sea fasteners- 7BW – PP 50 and PP 51.
6. Longitudinal Diaphragm – Counter weight side of segment 7BW – PP 50 and PP 51.
7. Corner Assembly – Counter weight side of segment 7BW – PP 50 and PP 51.
8. Truss post – Counter weight side of segment 7BW – PP 49.5 and PP 50.5.

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OBG # TRIAL ASSEMBLY YARD(Lift 7E)

This QA Inspector along with Mr. Chandrakumar Sudalaimuthu photographed and documented at various locations on lift 7E prior to the shipment of (Voyage 4) en-route to Yerba Buena Island, California, USA. The following locations are where the photographs were taken and the photographs are available for review upon request.

Lift 7 East (Panel Point 55.5 thru Panel point 60.5) the following sequential members were photographed and documented:

1. Truss post – Crossbeam side of segment 7DE and 7EE – PP 55.5, PP 56.5, PP 57.5, PP 58.5, PP 59.5 and PP 60.5.
2. Corner Assembly – Crossbeam side of segment 7DE and 7EE – PP 56 to PP 60.
3. Longitudinal Diaphragm - Crossbeam side of segment 7DE and 7EE – PP 56 to PP 60.
4. Chevron Diagonal members (upper and lower) - Crossbeam side of segment 7DE and 7EE – PP 56 to PP 60.
5. Sea fasteners- 7DE and 7EE – PP 56 to PP 60.
5. Longitudinal Diaphragm – Bike path side of segment 7DE and 7EE – PP 56 to PP 60.
6. Corner Assembly – Bike path side of segment 7DE and 7EE – PP 56 to PP 60.
7. Truss post – Bike path side of segment 7DE and 7EE – PP 55.5, PP 56.5, PP 57.5, PP 58.5, PP 59.5 and PP 60.5.

OBG # TRIAL ASSEMBLY YARD

This QA Inspector along with QA inspector Mr. Manoj Prabhune performed the dimensional survey inspection to verify the root gap and offset on the transverse splice weld of segment 9BW and segment 9CW. The measurements were recorded on a separate sheet and forwarded to team leader for review and disposition. The segment and panel point designations were as follows:

Segment 9BW to Segment 9CW – PP 76 to PP 77.

This QA Inspector randomly observed the following work in progress:

OBG # TRIAL ASSEMBLY YARD (9CE)

The QA Inspector observed the heat straightening operation on longitudinal diaphragm of segment 9CE. The ZPMC CWI was identified as Li Yang. The heat straightening was performed against HSR1 (B)-8783 Rev.0 dated 7th July 2010. The weld number designations were as follows:

SEG52B-044 and 045
SEG52C-044 and 045
SEG54B-007 and 008
SEG50C-029 and 030.

OBG # TRIAL ASSEMBLY YARD (9DE-9EE)

The QA Inspector observed the welding operation per the FCAW process on weld joint no. 024 in the (3G)

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vertical position on bottom panel WT stiffener piece mark number BP127-001. The location was the complete joint penetration groove weld joining the WT stiffeners of segment 9DE and 9EE. The welder ID was 067942. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-B-T-2233-B-U2-F.

OBG # TRIAL ASSEMBLY YARD (9DE-9EE)

The QA Inspector observed the welding operation per the FCAW process on weld joint no. 030 in the (3G) vertical position on bottom panel WT stiffener piece mark number BP073-001. The location was the complete joint penetration groove weld joining the WT stiffeners of segment 9DE and 9EE. The welder ID was 068793. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-B-T-2233-B-U2-F.

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

Summary of Conversations:

No relevant conversations were reported on this date.

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.

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| Inspected By: | Manikandan,Murugan | Quality Assurance Inspector |
| Reviewed By: | Peterson,Art | QA Reviewer |
