

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-000874**Date Inspected:** 16-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

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|------------------------------------|------------|----------------------------------|-------------|----|
| 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: | Steel Plate | |

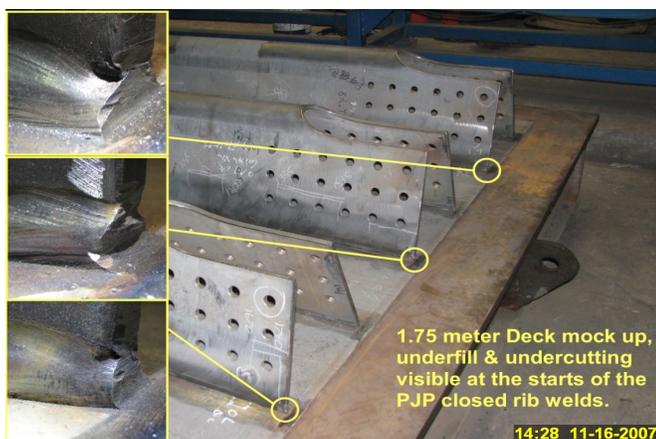
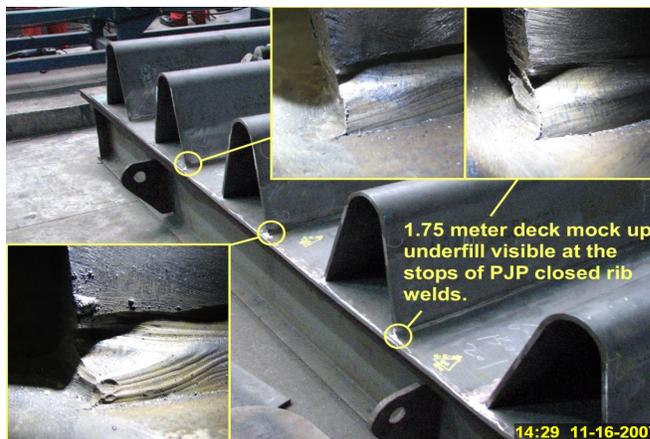
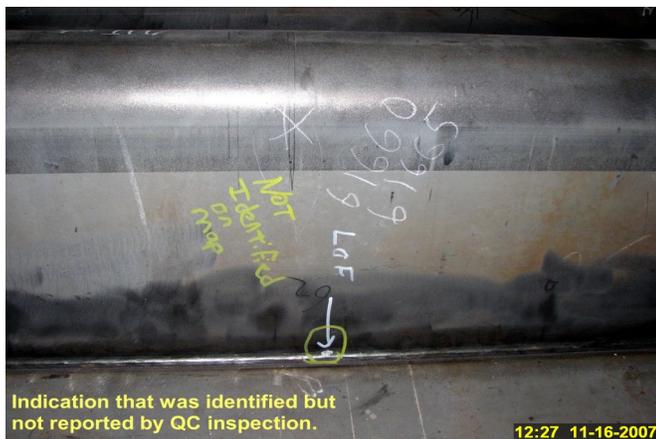
Summary of Items Observed:

The Caltrans Quality Assurance (QA) inspector, Scott Croff, was present at Zhenhua Port Machinery Company, Ltd (ZPMC) to observe the scheduled mock up construction and production construction of the SAS Superstructure.

The QA inspector Scott Croff observed completed partial joint penetration welds (PJP) between the closed ribs and deck plate on the 13 meter and 1.75 meter deck mock up sections. The PJP welds are completed and have been inspected by Quality Control (QC) inspectors for American Bridge/Fluor (ABF) and ZPMC. The QA inspector was informed that light leak tests and visual inspections should be conducted on the accepted PJP welds. The QA inspector was provided with a weld map of discontinuities that have been identified by the QC inspection. The QA inspector Larry Viars was also present during the examinations of the PJP welds. The QA inspector Scott Croff identified areas along the PJP welds where overlap and light is visible using the "light leak test" that has been authorized by the QA inspector Robert Cuellar and agreed upon by ABF QC. During the examination and testing, the QA inspector noted the appearance of undercut that was measured at 0.5mm deep for a length of 20mm on weld 1 of the 13 meter section. The QA inspector Robert Cuellar was notified of this observation. The QA inspector also noted that an indication of "LOF" was marked out on weld #7, but was not reported on the QC map of discontinuities. The QA inspector observed that welds on the 1.75 meter mock up appear to have undercut and under-fill at the ends. These observations were also reported to the QA inspector Robert Cuellar. See the attached photos of some of these noted observations.

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Summary of Conversations:

As noted above, the QA inspector Scott Croff and Larry Viars conducted examination of PJP welds on closed ribs to deck mock up sections. There were conversations regarding the observation of the noted overlap and light leaks, undercut and underfill. The QA inspectors would assist each other when there were questionable observations. The QA inspector Robert Cuellar was then informed of all observed discrepancies that were not previously reported on the provided QC inspection report. There were no other notable conversations during this shift.

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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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| Inspected By: | Croff, Scott | Quality Assurance Inspector |
| Reviewed By: | Cuellar, Robert | QA Reviewer |