

**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 #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027833**Date Inspected:** 04-Jun-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1630**Contractor:** American Bridge Manufacturing**Location:** Reedsport, OR**CWI Name:** James Vanek**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:** As Noted Below**Summary of Items Observed:**

The Caltrans Quality Assurance Inspector (QAI) David Gray was at the offsite fabrication facility of American Bridge Manufacturing (ABM) between times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

The QAI witnessed work in progress related to Contract Change Order (CCO) 189:

The QAI observed ABM welder Tom Daily ID# 3 welding in the 2F position with Flux Cored Arc Welding with 100% CO<sub>2</sub> Gas Shielding (FCAW-G) utilizing 1.4mm E71T-1C wire electrode. The QAI noted that the light fixture pipe assembly to the Tube Steel Uprights (Reference approved shop drawing Sheet 899R3, Railing Detail No.2, Detail U and 900R6, Railing Detail No.3, Detail F) was in progress. The QAI checked welding parameters (237 DC Amps and 28.6 DC Volts) and appear to be in compliance with Welding Procedure Specifications (WPS) ABM-SAS-06. Quality Control Inspector (QCI) James Vanek was observed monitoring the welding parameters. During subsequent observations it was noted that the welder was using a power die grinder to profile the weld to a smooth finish, and was cleaning between weld passes with power wire wheel brushes. Welding was completed by the end of the shift.

The QAI witnessed work in progress related to (CCO) 230:

The QAI observed ABM welder Brian Moore ID# B welding in the 2F position with Flux Cored Arc Welding with 100% CO<sub>2</sub> Gas Shielding (FCAW-G) utilizing 1.4mm E71T-1C wire electrode. Welding this date is for Suspender Bracket Modifications at the added stiffeners, (reference ABF drawing X451-12A and X451-12B) for fillet weld

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wrap at ends (Reference RFI ABM-829210-2). Quality Control Inspector (QCI) James Vanek was observed monitoring the welding parameters for compliance to WPS ABM-SAS-06. The QAI observed, on further monitoring that the welds were blended by power disc and die grinder to fillet welds previously welded. Fillet welds at the web and flanges were complete prior to the QAI's trip. The QAI reviewed the QC Visual inspection (VT) and Non Destruction Testing (NDT) Magnetic Particle Testing (MT) logs and they appear to comply with required testing to date. The QAI noted that Suspender Brackets 108W, 108E, 110W and 110E were in progress to the end of the shift.

Structural Materials Representatives (SMR) Bahjat Dagher requested the QAI to verify the weld at the web extension (reference ABF drawing X451-12A and CCO 230) has been transitioned per Figure 2.7 of American Welding Society (AWS) D1.5. The QAI observed that the weld profile appeared to comply.

The QAI noted that the workmanship herein appears to be in accordance with the project plans and specifications.



## Summary of Conversations:

Except as noted above no significant conversations were held 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 Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Gray, David	Quality Assurance Inspector
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<b>Reviewed By:</b>	Foerder, Mike	QA Reviewer
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