

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 #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026959**Date Inspected:** 27-Dec-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** See below**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:** SAS**Summary of Items Observed:**

13E/14E-E1/E2

The Caltrans Quality Assurance (QA) Inspector Rick Bettencourt randomly observed the ABF welder Wai Kit Lai was performing grinding tasks of the previously back gouged weld joint. The QA Inspector performed a random visual inspection of the in process back gouge and noted the weld joint appeared to be in general compliance with the contract requirements. The QA Inspector noted the back gouged weld joint did appear to be ground to bright metal and was blended to a weldable profile. The QA Inspector randomly observed the Smith Emery (SE) Quality Control (QC) Inspector John Pagliero perform magnetic particle testing (MT) of the completed back gouge with satisfactory results. The QC Inspector informed the QA Inspector no relevant indications were located at the time of the testing. The QA Inspector randomly observed the ABF welder Wai Kit Lai had previously started the induction heating blankets on the outside of OBG to ensure the minimum required preheat of 200°F was achieved prior to and maintained during welding. The QA Inspector randomly verified utilizing a 200°F temperature indicating marker and noted the minimum required preheat had been achieved. The QA Inspector observed the ABF welder to be utilizing the semi-automated flux cored arc welding (FCAW) for the above identified weld joint. The QA Inspector randomly observed the SE QC Inspector identified as John Pagliero set the FCAW machine to the parameters of the approved WPS identified as ABF-WPS-D1.5-3110-4. The QA Inspector randomly observed the FCAW parameters were 265 Amps, 22.3 Volts and a travel speed of 190mm/min and a calculated heat input value of 1.86. The QA Inspector noted the ABF welder continued welding the root passes for the remainder of the shift. The QA Inspector noted the welding was not completed on this date.

12E/13E-E1/E2

The QA Inspector randomly observed the ABF welder James Zhen had previously started the induction heating blankets on the outside of OBG to ensure the minimum required preheat of 200°F was achieved prior to and

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maintained during welding. The QA Inspector randomly verified utilizing a 200°F temperature indicating marker and noted the minimum required preheat had been achieved. The QA Inspector observed the ABF welder to be utilizing the semi-automated flux cored arc welding (FCAW) for the above identified weld joint. The QA Inspector randomly observed the SE QC Inspector identified as John Pagliero set the FCAW machine to the parameters of the approved WPS identified as ABF-WPS-D1.5-3110-4. The QA Inspector randomly observed the FCAW parameters were 265 Amps, 22.3 Volts and a travel speed of 190mm/min and a calculated heat input value of 1.86. The QA Inspector noted the ABF welder continued welding the root passes for the remainder of the shift. The QA Inspector noted the welding was not completed on this date. 12W/13W-A5

11E-pp100-E4-W4

The Caltrans Quality Assurance (QA) Inspector Rick Bettencourt randomly observed the American Bridge/Fluor (ABF) welder Salvador Sandoval performing carbon arc gouging and back grinding of the above identified weld joints. It was noted prior to the arrival of the QA Inspector the top side of the weld joints had been completed and ground flush with the top deck plate. The QA inspector randomly observed the ABF welder grind the back gouged weld joints to bright metal. The QA Inspector randomly observed the back gouged weld joints and noted they appeared to be in general compliance with the contract requirements. The QA Inspector randomly observed the SE QC Inspector Salvador Moreno perform magnetic particle testing (MT) of the back gouged weld joint and noted no relevant indications were present at the time of the testing. The QA Inspector randomly observed the ABF welder continue welding the in process lifting lug hole restoration of hole #4. The QA Inspector noted the weld joint was approximately 50% complete at the time of the SMAW 4G back weld. The QA Inspector randomly observed the ABF welder continue the SMAW cover pass. The QA Inspector noted the ABF welder completed the above identified weld joint on this date. The QA Inspector randomly observed the SMAW parameters were 1/8" E7018 low hydrogen electrodes with 112 Amps. The QA Inspector noted the parameters appeared to be in general compliance with ABF-WPS-1110A. The QA Inspector randomly observed the ABF welder did complete the above identified lifting lug holes on this date. The QA Inspector noted the weld reinforcement was ground flush on the QA Inspectors shift.



Summary of Conversations:

The QA Inspector spoke with the Lead QC Inspector Bonifacio Daquinag, the QC Inspector informed the QA Inspector of two locations where QA NDT verification was needed. The QA Inspector Rick Bettencourt informed the QA Inspector Rene Hernandez of the pending NDT. Mr Hernandez informed the QA Inspector he would begin performing the QA NDT verification immediately.

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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.

Inspected By:	Bettencourt,Rick	Quality Assurance Inspector
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Reviewed By:	Levell,Bill	QA Reviewer
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