

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023095**Date Inspected:** 26-Apr-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Steve Jensen**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:** Tower**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor American Bridge/Fluor (ABF) welding operations. This Quality Assurance (QA) Inspector, Craig Hager observed the following.

ABF welding foreman Eric Sparks informed this QA Inspector that several hours would be taken this morning to check equipment regarding safety and that welding would not be performed until after 0900 hours this date.

South Tower leg, Splice at the 83 meter elevation: The upper and lower Interior Corner Closure Splice Plates located at the B- C corner and C-D corner are complete at this location.

West Tower leg, Splice at the 83 meter elevation: This QA Inspector randomly observed the work in progress on the upper and lower Interior Corner Closure Splice Plates located at the B- C corner and C-D corner. During this shift the following was observed.

West - B-C corner, upper and lower plate: These plates were marked with grind/weld indications by QC Inspector Steve Jensen yesterday. No work was observed at this location this date.

West - C-D corner, lower plate: This QA Inspector observed ABF welding personnel Gil Peralta (#9453) using the Flux Cored Arc Welding (FCAW) process for production welding the top fillet weld. This QA Inspector observed QC Inspector Steve Jensen verify the following welding parameters; 310 amperes and 24.9 volts at a

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travel speed of 192 mm per minute to produce a heat input of 2.41 Kj per mm. The welding observed by this QA Inspector appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-F2200-2. This QA Inspector observed ABF welding personnel Morgan Winters (#3305) performing FCAW production welding on the upper plate after lunch. This QA Inspector observed QC Inspector Steve Jensen verify the following welding parameters; 245 amperes and 21.3 volts at travel speed of 110 mm per minute producing a heat input of 2.85 Kj per mm. The welding observed appeared to comply with ABF-WPS-D15-F2200-3. Upon completion of welding this date this QA Inspector observed an induction heat blanket was placed over the splice plate and informed the post heat would be set at 300°F for 3 hours.

North Tower leg, Splice at the 83 meter elevation: This QA Inspector randomly observed the work in progress on the upper and lower Interior Corner Closure Splice Plates located at the B- C corner and C-D corner. During this shift the following was observed.

North- B-C corner, lower plate: This QA Inspector observed ABF welding personnel Salvador Sandoval (#2202) using the FCAW process to start production welding on the bottom half of the plate. This QA Inspector randomly observed QC Inspector Steve Jensen verify the following welding parameters; 260 amperes and 20.5 volts at a travel speed of 90 mm per minute producing a heat input of 3.55 Kj per mm. The welding observed appeared to comply with ABF-WPS-D15-F2200-3. This QA Inspector observed after welding was completed this date an induction heat blanket was placed over the welding performed and was informed it was set at 300°F for 3 hours.

East Tower leg, Splice at the 83 meter elevation: The upper and lower Interior Corner Closure Splice Plates located at the B- C corner and C-D corner are complete at this location. This QA Inspector observed ABF welding personnel Richard Garcia (#5892) and Paul Frambrini fitting up the splice plates using various fitting aids and wedges. The fit ups were a work in progress by the end of the shift this date.

Tower Base – 3 to 13 Meter elevation; This QA Inspector was informed by ABF welding foreman Eric Sparks that blasting was still being performed and that welding would not be performed at this location this date. This QA Inspector had a conversation with ABF welding Superintendent Scott Smith this date and was informed the partial Joint penetration (PJP) diaphragm plate welds would be started as soon as the blasting was completed, and anticipated that would be late this week.

### **Summary of Conversations:**

This QA Inspector had general conversations with American Bridge/Fluor (ABF) and Caltrans personnel during this shift. Except as described above and noted below there were no notable conversations.

### **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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**Inspected By:** Hager,Craig

Quality Assurance Inspector

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**Reviewed By:**      Levell,Bill

QA Reviewer