

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 #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029998**Date Inspected:** 12-Aug-2013**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Richmond, CA**CWI Name:****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:****Summary of Items Observed:**

This report is from Caltrans QA Inspector Stacey Davis.

Caltrans Quality Assurance (QA) Inspector Stacey Davis arrived at Golden State Steel and Stair in Richmond, CA. in response to a Inspection Request, TL38. This QA met with Golden State Quality Control (QC) representative representative Jeff Kersten for the purpose of witnessing welder qualification and production stud welding. This QA was presented the weld procedure along with the material test report for the plate material and a Certificate of Compliance for the stud/ceramic materials.

This QA witnessed the material cutting and center punching (for location) of the plates in preparation for stud welding. Welder Jorge Castaneda performed the welding qualification piece utilizing Golden State Steel and Stair standard stud welding procedure "for 5/8" diameter Nelson H4L and D2L Concrete Anchors and 5/8" Threaded Studs, CPL or CFL" dated 5/17/2005 (note: this weld procedure has no number assigned to it). H4L studs and ceramics Heat Number 20253470 were used. Welder Jorge Castaneda completed a sample assembly and bent the samples greater than 30 degrees with no loss of fusion. This QA monitored production welding, also performed by Mr. Castaneda. This QA noted the following welding parameters in use:

Weld Time: 0.67 seconds

Weld Current: 1200 Amperes

This QA monitored the production welding noting no changes in welding parameters for the duration. Subsequent visual inspection of the completed assemblies was also performed by Welder Jorge Castaneda. During the removal

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of loose flash and small pieces of ceramic, it was determined that 1 piece was cut short of the required length. This piece was segregated and not utilized for the lot. This QA witnessed the cut of an additional piece, center punching for location and the subsequent stud welding.

During final review, it was determined that 16 of the welded studs did not exhibit the required 100% flash. These studs were FCAW weld repaired in accordance with a AWS D1.1 prequalified procedure. Each of the 16 were then 15 degree bent to determine complete fusion. None were found to be unfused.



Summary of Conversations:

As noted in the body of this report.

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 Gary Thomas (916)764-6027, who represents the Office of Structural Materials for your project.

Inspected By: Riley, Ken

Quality Assurance Inspector

Reviewed By: Foerder, Mike

QA Reviewer