

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 #: 82.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026428**Date Inspected:** 20-Sep-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1430**Contractor:** Westmont Industries**Location:** Santa Fe Springs, CA**CWI Name:** Patrick Fitzgerald**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 L & R**Component:** Maintenance Travelers**Summary of Items Observed:**

On this date, Caltrans Quality Assurance Inspector (QA) Sherri Brannon is present at the Westmont Industries (WMI) jobsite in Santa Fe Springs, California for the purpose of observing fabrication and QC functions for the SAS Superstructure, Bid Item #99, Maintenance Traveler and Bid Item #100, Maintenance Traveler (Bike Path).

E2/E3-WB Traveler (South) & (North)

This QA Inspector randomly observed WMI production welder Mr. Daniel Grayum (WID # 3049) performing fit up, tack welding and welding activities using Flux Core Arc Welding (FCAW) on the E2/E3-WB Traveler Assemblies. This QA Inspector observed Mr. Grayum performing the FCAW in all positions, randomly throughout the shift.

This QA Inspector randomly observed WMI production welder Mr. Eutimo Lopez (WID # 3035) continuing to perform Flux Core Arc Welding (FCAW) activities on the E2/E3-WB Traveler Assemblies. This QA Inspector observed Mr. Lopez performing the FCAW in all positions on tube steel and plate material, randomly throughout the shift

Traveler Trolley Train Suspension System Assembly

This QA Inspector randomly observed WMI production personnel Mr. Richard Fuentes and helpers continuing to assemble trolley train suspension system randomly throughout the shift.

This QA Inspector randomly observed that Smith Emery, CWI, QC Inspector Mr. Patrick Fitzgerald was present, during the above mentioned welding and fitting activities. During random observation, this QA Inspector observed

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that the applicable WPS's and copies of the shop drawings, appeared to be located near each work station, where the above mentioned welding and fitting activities were being performed. This QA Inspector randomly verified that the consumable material, utilized during the welding appeared to be in compliance with the applicable WPS and that the above mentioned welders were currently qualified for the applicable process and position of welding. This QA Inspector randomly observed QC Inspector Mr. Fitzgerald verifying the in-process welding parameters, including voltage, amperage, pre-heat and travel speed and the parameters appeared to be in compliance to the applicable WPS.

RPI Coating (Blast and Paint)

This QA Inspector performed random shop observations and observed that RPI Coating continuing coating applications on the SAS EB Traveler. QA Inspector was informed by RPI Coating Quality Control (QC) Representative Mr. Preston Keen that RPI is going to start sanding and pressure washing sections 1, 2, and 3 on the SAS EB Traveler today. QA Inspector randomly RPI personnel hand sanding primed coating using 100grit sandpaper and pressure washing traveler using a 6000 psi pressure washer.

QA Inspector performed measurement on dry coating thickness with Type 2 (magnetic gage), DFT's thickness reading of the prime coated section coated on 09-19-11 are an average of three (3) thickness reading are as follows 5.9 mils, 4.2 mils, 5.2 mils 5.8 mils, 5.0 mils, 5.3 mils, 5.2 mils, and 5.9 mils. QA Inspector also, observed Mr. Keen documenting daily actives on RPI Coating QC Daily Inspection Report.

Mr. Keen informed QA Inspector that on the interim coating of the Sherman Williams Zinc Clad II, Inorganic Zinc Rich prime coating he would be performing ASTM D4541 – Standard Test Method for Pull-Off Strength of Coating Using Portable Adhesion Tester, ASTM D3363 - Film Hardness by Pencil Test, ASTM D4752 Measuring MEK Resistance to Ethyl Silicate (Inorganic) Zinc-Rich Primers by Solvent Rub and performing the Quarter test. Mr. Keen stated that he will be using a calibrated Elcometer Hydraulic Adhesion Tester Model 108 for the adhesion test and Sherman Williams R7 KIII High Solids compliant thinner #1 for the solvent rub test. QA Inspector selected one (1) location for adhesion tests for per each day of production.

Testing observed is as follows:

Prime coated on 9-12-11 (section 1), adhesion test 725 psi (pass), Pencil Test (pass), Quarter Test (pass) and Rub test (pass).

Prime coated on 9-13-11 (section 2), adhesion retest 750 psi (pass), Pencil Test (pass), Quarter Test (pass) and Rub test (pass).

Prime coated on 9-14-11 (section 3), adhesion test 700 psi (pass), Pencil Test (pass), Quarter Test (pass) and Rub test (pass).

Prime coated on 9-15-11 (section 4), adhesion test 900 psi (pass), Pencil Test (pass), Quarter Test (pass) and Rub test (pass).

Prime coated on 9-16-11 (section 5), adhesion retest 435 psi, 450 psi, 400 psi, 400 psi (fail- paint), Pencil Test (pass), Quarter Test (pass) and Rub test (pass).

QA Inspector informed SMR Mr. Nicolai Hvass and QA Inspector Mr. Fintan Shanley of the above failing test results information. Mr. Hvass and Mr. Shanley stated that areas with failing test results should be re-blasted and re-primed. QA Inspector informed Mr. Keen that due to failing adhesion tests being below the required 580 psi/ 4 MPa that the entire area for that day of production will need to be re-blasted and re-primed. Mr. Keen stated that he would like to glue additional dollies and perform the adhesion testing tomorrow. QA observed Mr. Keen glue

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additional dollies in the area of 9-16-11 production.



Summary of Conversations:

QA Inspector informed SMR Mr. Nicolai Hvass of the above information.

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: Brannon, Sherri

Quality Assurance Inspector

Reviewed By: Lanz, Joe

QA Reviewer