

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-025413**Date Inspected:** 21-Jul-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1630**Contractor:** Westmont Industries**Location:** Santa Fe Springs, CA**CWI Name:** Ruben Dominguez**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 Bike Path Traveler

This QA Inspector made random shop observations and observed no fit-up performed on the E2/E3 Bike Path Traveler Assemblies on this date.

SAS-WB Traveler – Lower Truss Frame Assembly

Welding Completed on the SAS-WB Traveler – Lower Truss Frame Assembly on Thursday 5-12-11. Quality Control Mr. Dominguez informed QA Inspector that Smith Emery did complete visual inspection and waiting on WMI to weld and grind on some area's found by visual inspection. QA Inspector randomly observed WMI personnel grinding pick-up area's found by QC on this date. Grinding was not completed on this date.

E2/E3-WB Traveler

This QA Inspector randomly observed WMI production personnel Mr. Richard Fuentes WID #3201 and one helper, performing layout, fitting and tack welding activities at various locations for the E2/E3-WB Traveler Assemblies. This QA Inspector observed Mr. Fuentes performing the FCAW in all positions randomly throughout the shift.

This QA Inspector observed WMI production welder Mr. Charles Newton (WID # 3200) continuing to perform

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Flux Core Arc Welding (FCAW) activities on the E2/E3-WB Traveler Assemblies. This QA Inspector observed Mr. Newton performing the FCAW in all positions randomly throughout the shift.

SAS-WB Traveler - Fixed Stair Section

This QA Inspector randomly observed WMI production personnel Mr. Cesar Canales WID #3195 and helper Mr. Jesus Rayas WID#3197, performing layout, fitting and tack welding activities at various locations for the SAS-WB Traveler Assemblies. This QA Inspector observed Mr. Canales performing the FCAW in all positions randomly throughout the shift.

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

This QA Inspector observed that the activities mentioned above, appeared to be in compliance with the contract requirements and this QA Inspector observed no non-conforming issues, on this date.

RPI Coating (Blast and Paint)

QA Inspector's Brannon and Shanley were informed by RPI Coating Quality Control (QC) Representative Mr. Miguel Nunez that RPI is not going to be abrasive blasting and apply the Sherman Williams Zinc Clad II prime coat to the Trolley Links today. Mr. Nunez stated that he will be performing final coating tests on a few trolley links to see if the prime coating is still out gassing.

RPI Coating QC Mr. Nunez informed QA Inspector Brannon that RPI is going to use Sherman Williams Zinc Clad III HS 100 on the trolley links to touch up small areas. This QA informed Mr. Nunez that the Zinc Clad III will need to be sampled and sent to Caltrans Chemistry Lab for testing. This QA also informed Mr. Nunez that if RPI Coating using the Zinc Clad III today that RPI is proceeding at their own risk. Mr. Nunez stated that he understands that RPI is proceeding at their own risk. Mr. Nunez then asks this QA Inspector to sample the Sherman Williams Zinc Clad III. QA Inspectors Brannon and Fintan observe Mr. Nunez breaking down the kit for samplings. QA Inspector sampled the 3 part system of the Sherman Williams Zinc Clad III. QA Inspector Brannon reviewed applicable documents. After review of the documents and material to be shipped to the Caltrans Chemistry Lab, QA Inspector Brannon assigned Caltrans lot number B208-009-11 and completed a TL101 Sample Identification Card C711694 and attached Product Information and Material Safety Data Sheets to the TL101 and attached package to the sample. Samples are as stated Part A – Zinc Clad III HS 100, batch #XM0491UP, Part B - Zinc Clad III HS 100, batch #XM2800HF and Part F – Zinc Clad (zinc dust) Batch #3530. Later in the day QA Inspectors Brannon and Shanley observed RPI Coating touching up some on the trolley links that had been primed coated on 7-13-11 using the 3 part system stated above.

This QA Inspector performed measurement on dry film thickness (DFT) with Type 2 (magnetic gage), DFT's

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thickness reading of the prime coated Trolley Links Assemblies prime coated on 07-20-11 are an average of three (3) thickness reading are as follows 6.1 mils, 5.7 mils, 3.7 mils 4.7 mils, 3.8 mils, 3.4 mils, 6.8 mils, and 3.9 mils. QA Inspector also, observed Mr. Nunez documenting daily actives on RPI Coating, Daily Inspection Report.

Mr. Nunez informed QA Inspector's Sherri Brannon and Fintan Shanley that on the interim coating inspection trolley links prime coated on 7-13-11 and water rinsed on 7-19-11 of the Sherman Williams Zinc Clad II, Inorganic Zinc Rich prime coating he would be performing 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. Nunez stated that he will be using Sherman Williams R7 KIII High Solids compliant thinner #1 for the solvent rub test. QA Inspectors also observed Mr. Nunez perform a test for soluble salts on the water rinsed surface of the trolley links. Soluble salt tests results were zero (0) parts per million (PPM) which appeared to meet or exceed one test per 200 square meters, per the contract requirements. Testing observed by QA Inspector's appeared to comply with contract documents.

Note: The above mentioned Trolley Link Assemblies had been previously abrasive blasted and primed coated and was determined by Sherman Williams Representative Mr. Eric Anderson, RPI Coating Mr. Gary McDonald and RPI Coating Mr. Carlos Torres that RPI Coating had greatly exceeded the 3.4 mils to 5.9 mils for prime coating requirements and made the decision to re-blast and re-prime Suspension Arms and Trolley Link Assemblies. RPI Coating Mr. Gary McDonald and RPI Coating Mr. Carlos Torres will also reevaluate the E2/E3 EB Traveler prime coating thickness at a later date.

Note: RPI Coating completed the re-blasting and prime coating of all Suspension Arms and Trolley Link Assemblies on this date.

Final Coating Test performed by RPI Coating

RPI Coating applied the Sherman Williams Polysiloxane XLE-80 Epoxy Siloxane using different methods; Final coating test are as follows:

Test #1

2 test pieces - 1st - light mist coat, waited 30 minutes, 2nd – final coat – results – gassing occurred.

Test #2

2 test pieces - 1st - light mist coat, waited 15 minutes 2nd coat heavier mist coat wait 15 minutes, 3rd – final coat – results – light out gassing occurred.

Test #3

1 test piece - 1st - heavy mist coat, waited 30 minutes, 2nd – final coat – results – gassing occurred.

Test #4 (Per Sherman Williams – RPI added 30% Thinner R7 KIII to the Polysiloxane XLE-80 Epoxy Siloxane)

1 test piece - 1st - light mist coat (out gassing occurred), waited 15 minutes 2nd– final coat – results – no out gassing.

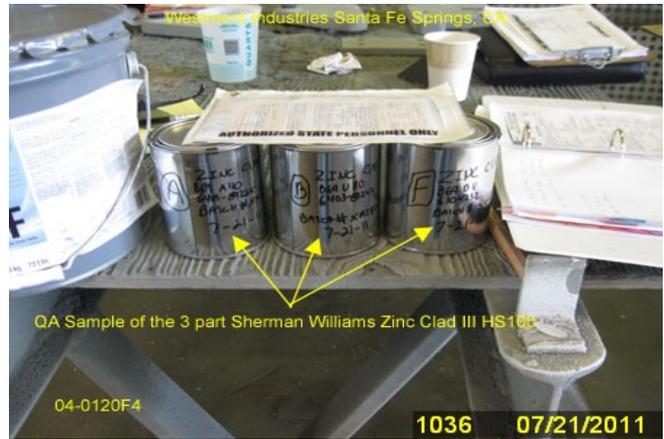
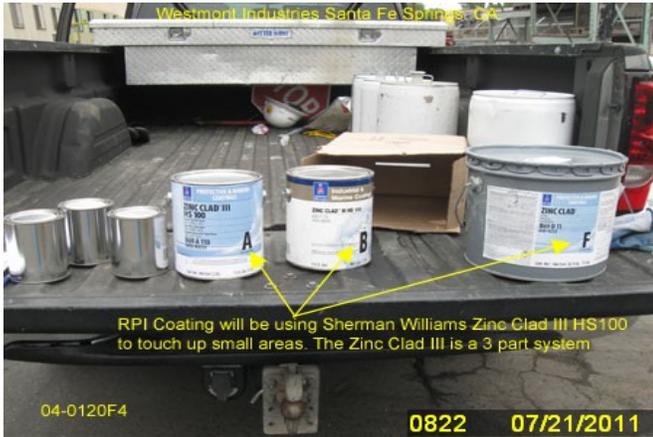
Test #5 Per Sherman Williams – RPI added 30% Thinner R7 KIII to the Polysiloxane XLE-80 Epoxy Siloxane)

1 test piece - 1st - medium mist coat (out gassing occurred), waited 15 minutes 2nd– final coat – results – no out

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gassing.



Summary of Conversations:

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

Inspected By: Brannon, Sherri

Quality Assurance Inspector

Reviewed By: Lanz, Joe

QA Reviewer