

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-018251**Date Inspected:** 18-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**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**Component:** Travelers**Summary of Items Observed:**

The Quality Assurance Inspector Sean Vance arrived on site at Westmont Industries (WMI) in Santa Fe Springs, CA, to randomly observe the in process welding, WMI Quality Control (QC) Inspectors in process and completed visual and nondestructive testing of the Travelers. Upon the arrival of the QA Inspector the following observations were made:

Traveler Test Rack

On this date, The QA Inspector observed production welders Mr. Jim Muetzel (WID # 3133) continuing to perform Gas Metal Arc welding (GMAW) and fitting activities on plate material, for the Traveler Test Rack. The QA Inspector observed that the activities were being performed on the top and bottom flange plate material Complete Joint Penetration (CJP) splices, for the Box Beam Assembly 1-A1.

On this date, the QA Inspector observed production welder Mr. Michael Ruiz (WID # 3155) continuing to perform Flux Core Arc welding (FCAW) welding activities on the vertical post to base support columns and connector plates, for the Traveler Test Rack. The QA Inspector observed that the assembly appeared to be identified as Column B1, Assembly 14-F7. Reference shop drawing WMI -TTR-7.

The QA Inspector observed Mr. Ruiz performing the FCAW in various positions, throughout the shift and the weld joints appeared to be designated as fillet and flare groove welds, per the shop drawings.

On this date, the QA Inspector observed production welder Mr. Daniel Grayum (WID # 3049) continuing to perform Flux Core Arc welding (FCAW) welding activities on the vertical post assemblies, for the Traveler Test Rack. Reference shop drawing WMI -TTR-16 and WMI -TTR-17. The QA Inspector observed Mr. Grayum

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performing the FCAW in various positions, throughout the shift and the weld joints appeared to be designated as fillet and flare groove welds, per the shop drawings.

SAS-EB Traveler

Fixed Stairs Section

On this date, the QA Inspector observed Westmont Industries (WMI) production welder, Mr. Jose Rodriguez (WID # 3031), continuing to perform Flux Core Arc Welding (FCAW) activities on the previously fit Frame assemblies, identified as 10-A237, 11-B237, 3-A217, 4-A218, 5-A223 and 6-A224. The QA Inspector observed throughout the shift, that the FCAW was being performed in various positions, on the connector plate and Tube Steel (TS) material fillet and flare groove welds. Additionally, the QA Inspector observed a WMI helper continuing to perform grinding activities on the previously completed fillet and flare groove welds on the Fixed Stairs Section. The QA Inspector observed that the grinding was being performed on previously marked areas by SE QC Inspector Ruben Dominguez, during preliminary Visual Testing. The QA Inspector observed that the areas previously marked and which the grinding was being performed, included excessive weld spatter, reinforcement and weld termination areas, which appeared to be not in compliance with the requirements of AWS D1.1 2002.

Lower Truss Section

The QA Inspector observed WMI production personnel Mr. Raymundo Anaya (WID # 3196) and Mr. Cesar Canales performing fitting and tacking activities on the Elevating Platform, for the Lower Truss Section. The QA Inspector observed that the fitting and tacking activities were being performed on the Stair Risers, piece marks identified as C270F, to Stair Support, piece mark identified as B270F. The QA Inspector observed that the layout on the Stair Support material had been previously completed and the Stair Riser material was being fit-up and the Flux Core Arc Welding (FCAW) process was being utilized by Mr. Lopez, to perform the tack welding of the Stair Riser to Stair Support material. Later, the QA Inspector was informed by WMI production personnel Mr. Jose Rodriguez that the overhead bay crane had been previously utilized to lift and place the Elevating Platform into place and Mr. Rodriguez explained that the platform appeared to fit. Mr. Rodriguez further explained that after performing this preliminary fit test, that the platform was then placed back in the fabrication area, to continue the FCAW.

See attached pictures below.

E2/E3-EB Traveler

On this date, the QA Inspector observed WMI production welder Mr. Juan Jimenez (WID # 3059), continuing to perform Flux Core Arc Welding (FCAW) welding activities on the intermediate ad diagonal bracing Tube Steel (TS) material. The QA Inspector observed that the FCAW being performed by Mr. Jimenez appeared to be for the Frame Assembly identified as 9-A332 and 10-B332, per the shop drawings. The QA Inspector observed that the weld joints appeared to be designated as 6mm fillet and flush flare groove welds and that Mr. Jimenez was performing the FCAW in the flat (1G) and vertical (3F) positions, throughout the shift.

The QA Inspector randomly observed that Smith-Emery QC Inspector Ruben Dominguez was present, during the above mentioned welding and fitting activities and QC Inspector Dominguez explained that approved Welding Procedure Specifications (WPS's) were being utilized. During random observation, the QA Inspector observed that the applicable WPS's and copies of the shop drawings, were located near each work station, where the above mentioned welding and fitting activities were being performed. The QA Inspector randomly verified that the

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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. The QA Inspector randomly observed QC Inspector 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.



Summary of Conversations:

On this date, the QA Inspector was informed by WMI Quality assurance Representative Mr. Curtis Bell that Quality Manufacturing Inc. has received material and Mr. Bell requested that an inspection be performed on the material.

At approximately 0900, the QA Inspector arrived at QMI and met with a QMI representative. QMI explained that the material which has been received by Fry Steel Company and will be machined, per WMI instructions. QMI then showed the QA Inspector what appeared to be three lengths of bar stock material, which were placed on a wooden pallet, on the shop floor. The QA Inspector was then provided the Mill Test Reports (MTR's) and a Certificate of Compliance (COC), attached to the MTR's. The QA Inspector then requested a copy of the shop drawing, which was provided to QMI from Westmont Industries (WMI). After reviewing the shop drawing, the QA Inspector observed that the bar stock material will be utilized for the Trolley Link Pins identified as "P1" 21-A718, "P2" 22-B718 and "P3" 23-C718. After further review of the drawings, the QA Inspector observed that the manufacturing notes on the drawing explain that the material is designated as round bar heat treated ASTM A322, Grade 4140, hot dip galvanized. Additionally, the QA Inspector noted that the drawing explains that the diameters shown, include the thickness of the galvanizing. QMI then explained to the QA Inspector that after the cutting and machining is complete, that the material will then be sent out for heat treating and the hot dip galvanizing process. The QA Inspector observed that the above mentioned material appears to be in compliance with the contract requirements and is listed as follows:

- 1 each 2" round x 49" long-A322 Gr. 4140-Ht. # 8095313 Bar Stock
- 1 each 2.75" round x 33" long-A322 Gr. 4140-Ht. # 8095313 Bar Stock
- 1 each 3.125" round x 25" long-A322 Gr. 4140-Ht. # 8092889 Bar Stock

See attached picture below.

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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:	Vance,Sean	Quality Assurance Inspector
Reviewed By:	Edmondson,Fred	QA Reviewer
