

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-017293**Date Inspected:** 01-Oct-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 500**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1330**Contractor:** Westmont Industries**Location:** Santa Fe Springs, CA.**CWI Name:** R. Rodriguez, R. 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 of the Travelers. The QA Inspector arrived on site to randomly observe the WMI Quality Control (QC) Inspectors in process and completed visual and nondestructive testing. Upon the arrival of the QA Inspector the following observations were made:

Traveler Test Rack

On this Date, the QA Inspector observed Smith Emery QC Inspector Ruben Dominguez performing Magnetic Particle Testing (MT) on the previously completed fillet and Flare Groove welds, for the Traveler Test Rack. The QA Inspector spoke with QC Inspector Dominguez and Mr. Dominguez explained that he was performing the testing, in accordance to the approved MT Procedure SE-MT-CT.D1.1-105, Rev. # 1 and the testing is being performed on 10% of the completed welds. QC Inspector Dominguez then explained that he had previously performed Visual Testing on the welds and the welds were acceptable, per AWS D1.1 2002 Visual Acceptance Criteria. The QA Inspector was later informed by QC Inspector Dominguez that no rejectable indications were found after testing and that an applicable Magnetic Testing report will be completed, per the contract requirements.

The QA Inspector observed that the above mentioned testing appeared to be in compliance with the contract requirements.

See attached picture below.

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Jose Rodriguez (WID # 3031) continuing to perform Flux Core Arc Welding (FCAW) activities, for the Traveler Test Rack. The QA

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

Inspector observed that Mr. Rodriguez was utilizing a Miller brand machine and wire feeder, to perform the FCAW and that Ultracore 71A85 (.045") diameter wire was being utilized, for the filler metal. The QA Inspector observed that the above mentioned FCAW was being performed on the vertical column base assembly Tube Steel (TS), Wide Flange Beam (WFB) and Plate material.

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Daniel Grayum (WID # 3049) performing Flux Core Arc Welding (FCAW) activities, for the Traveler Test Rack. The QA Inspector observed that Mr. Grayum was utilizing a Miller brand machine and wire feeder, to perform the FCAW and that Ultracore 71A85 (.045") diameter wire was being utilized, for the filler metal. The QA Inspector observed that the above mentioned FCAW was being performed on the vertical column base assembly Tube Steel (TS), Wide Flange Beam (WFB) and Plate material.

See attached picture below.

E2/E3-EB Traveler

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Raymundo Anaya and production fitter, Cesar Canales performing activities for the fabrication of the Travelers. The QA Inspector observed that Mr. Anaya and Mr. Canales were fitting Wide Flange Beam (WFB) material, and cross bracing, utilizing angle iron material. The QA Inspector observed that the Shielded Metal Arc Welding (SMAW) process was being utilized to join the material. The QA Inspector spoke with Mr. Canales and he explained that the fabrication and SMAW activities were being performed to construct a temporary base support for future fitting, tacking and welding activities on the Travelers. Mr. Canales further explained that the temporary base support will be constructed utilizing two WFB's strategically placed to the width of the Travelers assembly, 195.75" (4975 mm) apart and the angle iron will then be utilized to join the two WFB'S. See attached picture below.

On this date, the QA Inspector observed Westmont Industries (WMI) production personnel Mr. Tim Hartnett, cutting material which will be utilized, for the E2/E3-EB Traveler. The QA Inspector observed that Mr. Hartnett was utilizing a Marvel Brand 15 A series horizontal band saw, to perform the cutting operations and observed that the material being cut, was identified as 6" x 4" x .3125" (152 mm x 102 mm x 8 mm) square Tube Steel (TS). The QA Inspector spoke with Mr. Hartnett and he explained that WMI shop supervisor, Mr. George Grayum, had provided a list of TS material, with specific dimensions, per the shop drawing bill of materials. Mr. Harnett further explained that he was cutting the material to these specific lengths and marking the material with a white paint stick marker, to identify the individual cut pieces of material. The QA Inspector observed that the rectangular tube steel, had been previously inspected by WMI QC Inspector Rick Rodriguez and that the Mill Test Report's (MTR's) had been previously provided to the QA Inspector.

See attached picture below.

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Eutimo Lopez (WID # 3035), continuing to perform Flux Core Arc Welding (FCAW) activities for the E2/E3-EB Traveler frames. The QA Inspector observed Mr. Lopez performing the FCAW on previously fit and tack welded Tube Steel (TS) on the Frame Assembly, identified as B237, per the shop drawings. The QA Inspector observed that Mr. Lopez was utilizing a Miller brand machine and wire feeder, to perform the FCAW and that Ultracore 71A85 (.045") diameter wire was being utilized, for the filler metal.

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

On this date, the QA Inspector observed Westmont Industries (WMI), production personnel Larry Swanson, continuing to perform Flux Core Arc Welding (FCAW) fitting, tacking and grinding activities for the E2/E3-EB Traveler Frames. The QA Inspector observed that Mr. Swanson was fitting the previously cut to length Tube Steel (TS) diagonal and cross bracing, for the Frame assembly identified as A240. The QA Inspector observed Mr. Swanson utilizing various sizes of C-Clamps, to fit the diagonal bracing and once the diagonal bracing was fit, the QA Inspector randomly observed Mr. Swanson performing dimensional measurements, utilizing a steel tape measure. The QA Inspector then observed Mr. Swanson reference the approved shop drawings, located nearby the fabrication area, to verify the dimensions of the fit diagonal bracing. After the measurements were checked and verified, the QA Inspector then observed Mr. Swanson FCAW tack weld the diagonal bracing. After the tack welding was complete, the QA Inspector observed that Mr. Swanson would then perform minor grinding activities on the completed tacks, to smooth and blend.

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Juan Jimenez (WID # 3059), performing Flux Core Arc Welding (FCAW) activities, for the Traveler Frames. The QA Inspector observed that Mr. Jimenez was performing the FCAW on square Tube Steel (TS) material, for the Traveler Frame Assembly 15 identified as A235, reference shop drawing WMI-SAS-235. The QA Inspector observed that Mr. Jimenez was utilizing a Miller brand machine and wire feeder, to perform the FCAW tacking activities and that Ultracore 71A85 (.045") diameter wire was being utilized, for the filler metal. The QA Inspector observed that Smith-Emery QC Inspector Ruben Dominguez was present, during the above mentioned welding and tacking activities and QC Inspector Dominguez explained that approved Welding Procedure Specifications (WPS's) were being utilized. The QA Inspector randomly observed that the applicable WPS's and copies of the shop drawings, were located near each work station, where the above mentioned FCAW and fitting activities were being performed. QC Inspector Dominguez explained that the in-process welding parameters were randomly verified including voltage, amperage, pre-heat and travel speed and explained that the parameters appeared to be in compliance to the applicable WPS. The QA Inspector randomly verified these parameters and concurred with QC Inspector Dominguez.



WELDING INSPECTION REPORT

(Continued Page 4 of 4)



Summary of Conversations:

As noted above.

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
