

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 #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026679**Date Inspected:** 09-Nov-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite

CWI Name:	As noted below		
Inspected CWI report:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A

CWI Present:	Yes	No	
Rod Oven in Use:	Yes	No	N/A
Weld Procedures Followed:	Yes	No	N/A
Verified Joint Fit-up:	Yes	No	N/A
Approved WPS:	Yes	No	N/A
Delayed / Cancelled:	Yes	No	N/A

Bridge No: 34-0006**Component:** SAS OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

- 14W PP128 W4-W1 and W2 (Exterior)
- 14W PP128 W3-W3 and W4 (Exterior)
- 11W PP101 W6 PS-7 Brackets (Exterior)

- 14W PP128 W4-W1 and W2 (Exterior)

This QA Inspector made random observations of ABF welding personnel Jorge Lopez ID# 6149 perform the Shielded Metal Arc Welding process (SMAW) in the 1G flat position on Lifting Lug Hole (LLH) 14W PP128 W4-W1. This QA Inspector observed QC Inspector Sal Merino measure the pre-heat temperature to verify a minimum of 10°C was achieved. This QA Inspector also observed the QC Inspector monitoring the welding and verifying that the parameters were in compliance pertaining to ABF-WPS-D15-1050A-CU. The parameters were recorded as (Amperes=195) utilizing a 4.0 mm E7018-H4R electrode. During in process welding, this QA Inspector noted that the QC Inspector measured the inter-pass temperatures to maintain a heat range below 230°C. This QA Inspector made subsequent observations throughout the shift to monitor quality. Upon completion of the exterior side of LLH W1, the ABF welder began preparations on LLH W2 at the same location as noted above. This QA Inspector observed the welder grind and blend the edges of the hole utilizing a small disc grinder and installed the 20 mm plate to make up the BU-4a joint. This QA Inspector observed the QC Inspector measure the

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planar offset to be within 1 mm and this QA Inspector found it to be acceptable. The QC Inspector verified the pre-heat temperature to be a minimum of 10°C and the ABF welder commenced welding utilizing the SMAW process in the 1G flat position. This QA Inspector noted that the root pass was performed using a 3.2 mm electrode and a 4.0 mm electrode mid joint followed by a 4.8 mm electrode in the final passes. This QA Inspector noted that the QC Inspector was monitoring the welding and verifying that the parameters were in conformance with the above noted WPS. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work on the exterior side of LLH's W1 and W2 were completed on this date and appeared to be in general conformance with the contract documents.

2. 14W PP128 W3-W3 and W4 (Exterior)

This QA Inspector randomly observed ABF welding personnel Mike Jimenez ID# 4671 pre-heat the joint to 10°C prior to performing SMAW in the 1G flat position on LLH 14W PP128 W3-W3. This QA inspector observed the QC inspector Sal Merino measure the joint fit-up and found it to be acceptable and within compliance. This QA Inspector observed the QC Inspector monitor the inter-pass temperatures and monitor the welding to ensure the parameters were in compliance pertaining to ABF-WPS-D15-1050A-CU. The parameters were recorded as (Amperes=180) utilizing a 4.0 E7018-H4R electrode. This QA Inspector randomly observed the ABF welder grind and blend the start and stop areas of the weld throughout the joints depth. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work on the exterior side of LLH W3 was completed on this date and appeared to be in general conformance with the contract documents. This QA Inspector observed the QC Inspector measure the planar offset on the 20 mm plate for the BU-4a joint at 14W PP128 W3-W4. Upon approval of the fit-up the ABF welder pre-heated the joint to a minimum of 10°C and began welding in the SMAW process in the 1G flat position utilizing a 3.2 mm E7018-H4R electrode for the root pass. This QA Inspector randomly observed the QC Inspector monitor the welding and verifying that the parameters were in conformance with the above noted WPS. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work on the exterior side of LLH's W3 and W4 were completed on this date and appeared to be in general conformance with the contract documents.

3. 11W PP101 W6 PS-7 Brackets (Exterior)

This QA Inspector observed F.W. Spencer welding personnel Curtis Jump ID# 7326 fit-up a PS-7 bracket on the crossbeam side of the PP100-PP101 barricade located at 11W PP101 W6. Welding was performed in the flat (2F) position. The QA Inspector observed QC inspector Steve Jensen monitoring welding and to ensure the parameters were in compliance pertaining to WPS-FWS Fillets Murex SFOBB Revision 1. The welder was observed implementing E7018-H4R Murex electrodes. This QA Inspector made subsequent observations throughout the shift to monitor quality. The FW Spencer welder completed the PS-7 bracket and relocated to 11E 12E E6 for installation of a PS-5 bracket. The welder utilized the SMAW process in the flat (2F) position and incorporated the E7018-H4R Murex electrodes conforming to the above welding procedure. This QA Inspector observed the QC Inspector monitoring welding and to ensure the parameters were in compliance and this QA Inspector made subsequent observations throughout the shift to monitor quality. Upon completion of the welding of the PS-5 bracket the welder began installation of a PS-5 bracket at 11E PP101 W6. This QA Inspector randomly observed the QC Inspector monitor the welding to ensure the parameters were in compliance pertaining to WPS-FWS Fillets Murex SFOBB Revision 1. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was completed on this date and appeared to be in general

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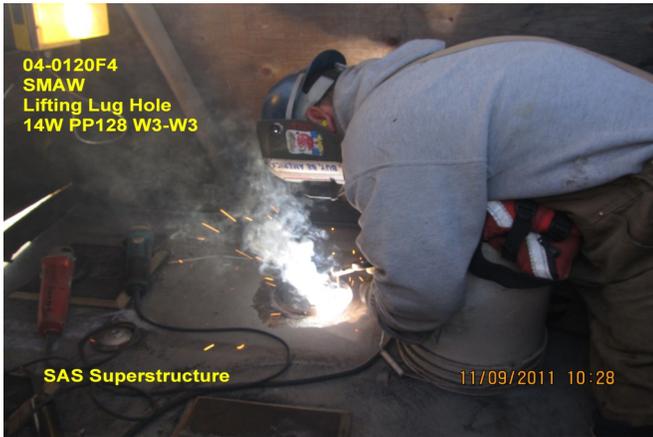
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conformance with the contract documents.

Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report. No issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

Summary of Conversations:

At the beginning the shift the QA inspector met with QC inspector John Pagliero and discussed the welders assignments and locations for the shift to include pending issues, ongoing work and required testing.



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:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
