

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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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-027096
Date Inspected: 27-Jan-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1530
Location: Jobsite

CWI Name:	As noted below	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:	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:

13E/PP122.5/E3 Lifting Lug Holes W3 and W4 (Exterior)

This QA Inspector randomly observed ABF welder Salvador Sandoval pre-heat the complete joint penetration (CJP) weld prior to performing Shielded Metal Arc Welding (SMAW) on lifting lug hole W3 at 13E/PP122.5/E3. This QA Inspector observed QC Inspector Fred Von Hoff verify that the temperature was at a minimum of 66° C and the amperage for the 3.4mm E7018-H4R electrodes was 128. The welder made a few more passes to complete the work and employed a small disc grinder to blend the reinforcement to a near flush condition. Upon completion of W3 the welder made preparations to perform fit-up operations on W4. This QA Inspector observed QC Inspector Fred Von Hoff utilize a Bridge Cam Gage to measure the fit-up of the 20 mm plate in the B-U4a joint on lifting lug hole W3 at 13E/PP122.5/E3. This QA Inspector verified the fit-up as acceptable and employed a 66° C Tempilstik to ensure the minimum pre-heat temperature had been achieved. This QA Inspector randomly observed ABF welder Salvador Sandoval performing the SMAW process in the (1G) flat position and observed the QC Inspector verify the welding parameters were in accordance with ABF-WPS-D15-1050A-CU. 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 compliance with the approved WPS and the contract specifications. This joint is a Seismic Performance Critical Member.

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12E/13E/A5 (Interior)

This QA Inspector made random observations of the Flux Core Arc Welding with Gas (FCAW-G) on face "B" of "A5" at 12E/13E on the interior of the OBG. ABF welder Xiao Jian Wan (ID 9677) was observed completing the final passes on the B-U2a CJP joint as QC Inspector Fred Von Hoff monitored the welding and the parameters to ensure conformance with ABF-WPS-D1.5-3110-4. The parameters were recorded as (A=235/V=23.6/TS=304/HI=1.09). Upon completion of the welding the welder was observed grinding and blending the excessive reinforcement to a near flush condition. The work at this location was completed on this date and appeared to be in general compliance with the contract specifications.

13E/14E/D2 Repair (Exterior)

This QA Inspector randomly observed ABF welder Wai Kit Lai (ID 2953) conducting repair operations at y+2730 on "D2" 13E/14E on the exterior of the OBG. The welder was observed utilizing 3.4mm E7018-H4R electrodes for the SMAW process in the 4G overhead position. Between passes the welder ground and blended the edges with a small disc grinder while QC Inspector Fred Von Hoff measured the inter-pass temperatures. The QC Inspector was observed monitoring the welding and the parameters for compliance with the approved WPS. This QA Inspector made subsequent observations throughout the shift and noted that the work was completed on this date and appeared to be in general conformance with ABF-WPS-D1.5-1001-Repair.

13E/PP118/E4 Lifting Lug Hole W3/W4 (Interior)

This QA Inspector randomly observed ABF welder Eric Sparks performing the back-gouge operations of face "B" on "A" deck Lifting Lug Holes W3 and W4 at 13E/PP118/E4 on the interior of the OBG.. This QA Inspector observed QC Inspector Fred Von Hoff perform a Magnetic Particle Inspection (MT) of the excavation to determine the soundness of the metal. Upon completion of the testing this QA Inspector verified that no rejectable indications were present. This QA Inspector observed the welder performing the SMAW process in the 4G overhead position utilizing 3.0mm electrodes and the QC Inspector verifying that the parameters and the welding were in compliance with ABF-WPS-D1.5-1110A-Revision 1. Upon completion of the welding, ABF welding personnel were observed grinding the excessive reinforcement to a near flush surface condition. This QA Inspector noted that the work was completed on this date and appeared to be in general conformance with the contract documents. This joint is a Seismic Performance Critical Member (SPCM).

13E/PP122.5/E3 Lifting Lug Hole W2 (Interior)

This QA Inspector at random intervals observed the back-gouge operations of lifting lug hole W2 at 13E/PP122.5/E3 on the interior of the OBG. ABF qualified welder Rick Clayborn (ID 2773) employed a small disc grinder to back-gouge the root pass from face "B" of the weld in preparation for MT testing. QC Inspector Fred Von Hoff performed MT testing and this QA Inspector noted that Mr. Von Hoff found no rejectable indications. The welder exercised the SMAW process in the 4G overhead position to complete the work at this location. The QC Inspector was observed monitoring the welding and the parameters for conformance with ABF-WPS-D1.5-1110A-Revision 1. This QA Inspector noted that the work was completed on this date and the welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications. This joint is a Seismic Performance Critical Member (SPCM).

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Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report. The issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

Summary of Conversations:

The were no pertinent conversations to report.



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