

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-026527
Date Inspected: 12-Oct-2011

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: 1730
Location: Job Site

CWI Name:	Fred Von Hoff	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:	OBG Sections	

Summary of Items Observed:

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor American Bridge/Fluor (ABF) welding operations. This Quality Assurance (QA) Inspector, Craig Hager observed the following.

Orthotropic Bridge Girder (OBG) Sections:

12E-PP115-E4 Lifting Lug Hole (LLH) # 2: This QA Inspector randomly observed ABF welding personnel Jorge Lopez (#6149) using the Shielded Metal Arc Welding (SMAW) process to finish the fill and cover passes outside on the OBG deck. This QA Inspector randomly observed QC Inspector Fred Von Hoff at several verify the preheat and welding parameters. This QA Inspector observed while welding the fill passes a 4.8 mm diameter E7018H4R electrode was being used and observed the following parameters taken by QC Inspector Fred Von Hoff; 270 amperes. Later this date this QA Inspector randomly observed as QC Inspector Fred Von Hoff verified the following welding parameters; 190 amperes. This QA Inspector observed the cover passes were being welded at this time and a 4 mm diameter E7018H4R electrode was being used. The welding observed appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-1050A – CU. This QA Inspector observed the welding appeared to be completed at this location on the top of A-deck this date.

8E-PP70-E5-NE Access Plate: This QA Inspector randomly observed ABF welding personnel Salvador Sandoval (#2202) using the SMAW process to weld the straight sections of this weld joint. The welding observed was the fill and cover passes. This QA Inspector randomly observed QC Inspector Salvador Merino verifying the

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following welding parameters; 182 amperes. This QA Inspector observed a 4.0 mm diameter E7018H 4R electrode was being used in the flat (1G) position. The welding observed at this location appeared to comply with ABF-WPS-D15-1040 B Rev-1.

11E-PP104-E3 LLH #3 and #4: This QA Inspector observed ABF welding personnel Fred Kaddu (#2188) start the excavation of 3 repairs on LLH #3 and 2 repairs on LLH #4. This QA Inspector observed QC Inspector Fred Von Hoff was monitoring the work at this location. This QA Inspector observed the following excavations had been made: LLH#3; Y-470 – length = 90 mm and depth = 7 mm, Y-310 – length = 70 mm and depth = 7 mm, Y-225 – length = 100 mm and depth = 11 mm.

LLH#4; Y-305- length = 190 mm and depth = 10 mm, Y-240 – length = 80 mm and depth = 11 mm.

This QA Inspector observed as QC Inspector Fred Von Hoff performed a visual and Magnetic Particle Testing (MT) on each of the excavations listed above. See photo of excavations below. This QA Inspector performed a visual verification on each of the excavations. This QA Inspector randomly observed during the shift as the excavation areas were preheated and welded. This QA Inspector observed QC Inspector Fred Von Hoff verify the following welding parameters; 123 amperes using a 3.2 diameter E7018H4R electrode. The welding observed appeared to comply with ABF-WPS-D15-1001 Repairs. This QA Inspector observed that by the end of the shift this date the repair welding appeared to be completed. The repairs observed above appeared to be the first time excavation of the repairs (R-1).

11E-PP100-E3 LLH# 1,2 and 3: This QA Inspector randomly observed QC Inspector John Pagliero performing a visual inspection, MT and Ultrasonic Testing (UT) on these Complete Joint Penetration (CJP) welds at this location. QC Inspector John Pagliero informed this QA Inspector of the following results; LLH #1 was accepted using the visual and MT methods, but rejected using the UT method, LLH#2 was rejected during the visual inspection for undercut and LLH#3 was accepted using the visual and MT methods, but rejected using the UT method. This QA Inspector randomly observed as the UT was being performed and observed the transducer angle, scanning pattern and general technique used appeared to comply with the contract requirements. See photo below of UT inspection in progress.

This QA Inspector verbally informed QA SPCM Lead Inspector, Daniel Reyes, of the issues noted in this report for compliance therefore for further details of issues of significance see QA SPCM Lead Inspector, Daniel Reyes, Daily Inspection Report (6031) for this date.

Summary of Conversations:

This QA Inspector had general conversations with American Bridge/Fluor (ABF) and Caltrans personnel during this shift. Except as described above and noted above there were no notable conversations.

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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: Hager,Craig

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer