

**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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016382**Date Inspected:** 19-Aug-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1100**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

**CWI Name:** Mike Johnson  
**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:** OBG Section**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 to monitor American Bridge/Fluor (ABF) welding operations.

The following observations were made:

- 1) At weld joint E5/E6-E1 and E2, outside the OBG section: ABF welding personnel Rory Hogan (#3186) and Jeremy Dolman (#5042) completed welding the previous shift and are in the process of moving to E5/E6-D1 and D2 to start removing the backing strap.
- 2) At weld joints W4/W5- C1, C2, E1 and E2, outside the OBG section: ABF personnel were in the process of removing the backing strap and back gouging the weld.
- 3) At weld joint E4/E5-E1 and E2, outside the OBG section: QC Inspector Steve McConnell was in the process of performing Ultrasonic Testing (UT).
- 4) At weld joint E5/E6-C1 and C2, outside the OBG section: QC Inspector Tom Pasqualone was in the process of performing Visual and Magnetic Particle Testing (MT).
- 5) Adjacent to weld joint W1/W2 work was in progress on a cut out section of the longitudinal diaphragm on the outboard W2 side of the weld joint.

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## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

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At weld joint E5/E6-E1 and E2, outside the OBG section this QA Inspector observed ABF welding personnel Rory Hogan (#3186) and Jeremy Dolman (#5042) had completed welding the previous shift and were in the process of moving to E5/E6-D1 and D2. ABF welding personnel Rory Hogan (#3186) informed this QA Inspector they going to remove the backing strap and back gouge after relocating and setting up the equipment.

At weld joints W4/W5- C1, C2, E1 and E2, outside the OBG section this QA Inspector observed ABF welding personnel Bryce Howell and a helper were in the process of removing the backing strap and back gouging the weld.

At weld joint E4/E5-E1 and E2, outside the OBG section this QA Inspector randomly observed QC Inspector Steve McConnell as he was performing Ultrasonic Testing (UT) on the completed weld joint. This QA Inspector observed he was approximately 2/3 done on the outside and had been informed by QC Inspector Steve McConnell he had completed UT from inside the OBG section. QC Inspector Steve McConnell implied he had rejected several areas as of this stage of the QC inspection. The work observed during the in process inspection appeared to comply with the techniques specified in the contract requirements.

At weld joint E5/E6-C1 and C2, outside the OBG section this QA Inspector randomly observed QC Inspector Tom Pasqualone performing a Visual and MT inspection on the completed weld. The work observed during the in process inspection appeared to comply with the techniques specified in the contract requirements.

Adjacent to the weld joints at W1/W2 work was in progress on a cut out section of the longitudinal diaphragm on the outboard W2 side of the weld joint. See photo below for details. This QA Inspector observed ABF welding personnel Fred Kaddu (#2188) was in the process of laying out a section of plate material to be fit and welded at this location. This QA Inspector observed an oxygen acetylene torch was used for cutting and a grinder used to clean and shape the outside edges. This QA Inspector observed QC Inspector Mike Johnson arrived at this location and was informed of the following: A smaller section had been previously cut out and welded, inspected and rejected by QC after the UT inspection. The section cut out today was larger than the original cut out, therefore removing the rejected Complete Joint Penetration (CJP) welds previously rejected by QC personnel. This QA Inspector observed the plate did not have any identifying markings such as a heat number from a Material Test Report (MTR) and brought to the attention of QC Inspector Mike Johnson. QC Inspector Mike Johnson informed this QA Inspector Jim Bowers, ABF Quality Control Manager (QCM), had a package with the documentation. Later in the shift this QA Inspector discovered the material had been tagged to the jobsite and all documentation had been reviewed. This QA Inspector was also informed by QC Inspector Mike Johnson the proposed joint designs were a double vee groove butt joint for the one vertical section of welding, a double bevel groove butt joint for the one horizontal section of welding and that the bottom section was fillet welded. The cut out section and plate to be fit up were a work in progress during this QA Inspector's shift, but the work observed appeared to follow industry standards and that it could meet the contract requirements.

### **Summary of Conversations:**

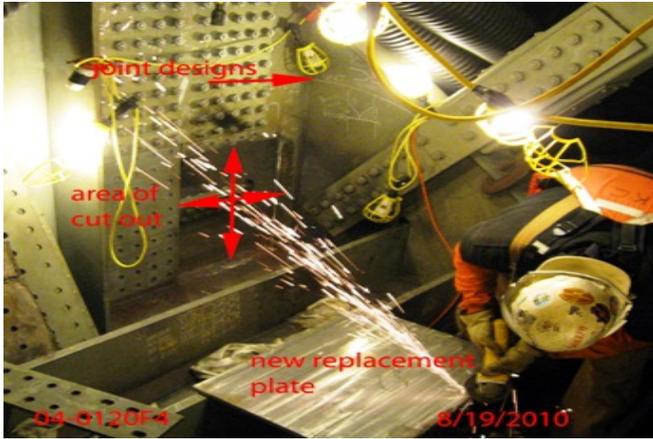
As noted above.

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# WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

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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 Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

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**Inspected By:** Hager,Craig

Quality Assurance Inspector

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**Reviewed By:** Levell,Bill

QA Reviewer