

**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-028183**Date Inspected:** 15-Aug-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job site**CWI Name:** Salvador Merino**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**Summary of Items Observed:**

Quality Assurance Inspector (QAI) Rodney Patterson 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:

The QAI observed ABF/JV qualified welder Jin Pei Wang #7299 performing Carbon Arc Gouging (CAG) for the repair of the deck panel drop-in splice designated as 13E-E2.2. The ABF/JV QC inspector Salvador Merino was observed performing magnetic particle testing (MT) in way of the repair excavation at the following location,

Y=4060 Forth time repair, Depth 12mm, Width 25mm, Length 290mm

The ABF qualified welder was observed later in the shift performing Shielded Metal Arc Welding (SMAW) in the 4G position utilizing the Caltrans approved Welding Procedure Specifications ABF-WPS-D1.5-1004-Repair. The weld and surrounding area was brought to temperature by the use of inductions heaters and maintained throughout welding. The repair welding at this location was performed in accordance with approved document RWR 201208-045.

During the Quality Assurance (QA) random in-process visual inspection of the welding operations on the OBG 13 East, the QA inspector observed the K-plate web splice between KP3007A and KP3007B was welded with planar misalignment measured to be 10mm at the lower termination and 7mm at the upper termination of the vertical web. The K-plate web splice is located 585mm east of east of panel point 120.5 and is designated on the contract drawings as a Seismic Performance Critical Member (SPCM). The QA task leader was notified in writing of the

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non-compliant issue for further discussion with the Caltrans Structural Materials Representative (SMR) and ABF Management.

The QAI observed ABF/JV qualified welder Wai Kitlai #2953 performing Carbon Arc Gouging (CAG) for the repair of the deck panel drop-in splice designated as 13E-E2.8 and 13E-E2.1. The ABF/JV QC inspector Salvador Merino was observed performing magnetic particle testing (MT) in way of the repair excavation at the following locations,

Y=270 first time repair. Depth 11mm, Width 20mm, Length 80mm (13E-E2.8)

Y=1050 first time repair. Depth 11mm, Width 23mm, Length 100mm (13E-E2.8)

Y=325 first time repair. Depth 11mm, Width 23mm, Length 100mm (13E-E2.1)

Y=510 first time repair. Depth 11mm, Width 23mm, Length 100mm (13E-E2.1)

Y=570 second time repair. Depth 11mm, Width 23mm, Length 100mm (13E-E2.1)

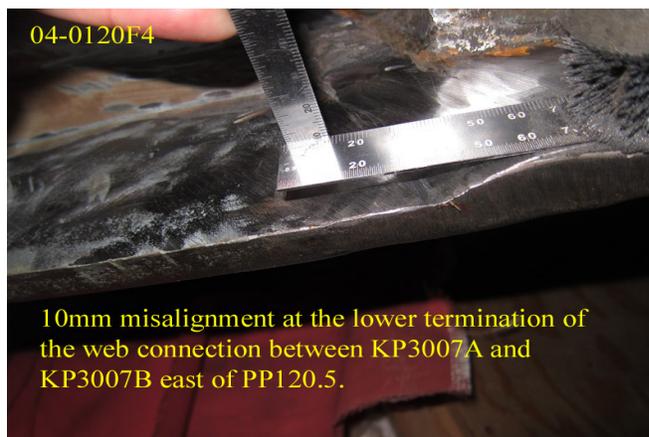
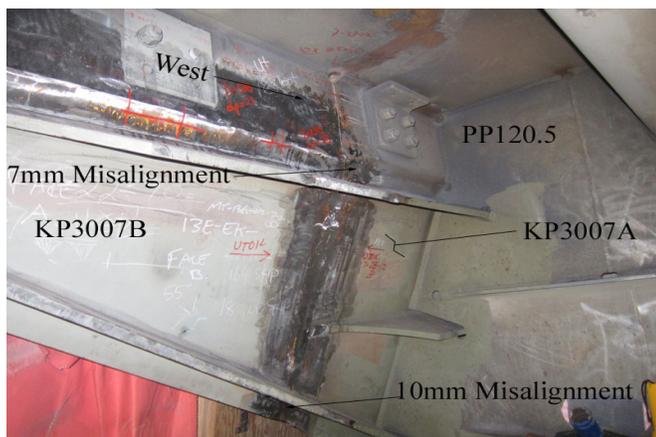
The ABF qualified welder was observed later in the shift performing Shielded Metal Arc Welding (SMAW) in the 4G position utilizing the Caltrans approved Welding Procedure Specifications ABF-WPS-D1.5-1004-Repair. The weld and surrounding area was brought to temperature by the use of inductions heaters and maintained throughout welding. The second time repair at Y=570 for weld 13E-E2.1 was performed without the prior approval of the engineer. The QA task leader was notified in writing of the non-compliant issue for further discussion with the Caltrans Structural Materials Representative (SMR) and ABF Management. All other noted locations were non-critical repairs and do not require approval.

The QAI spent a portion of this shift reviewing and documenting the status and completion of various production welding tracking logs for lift 13W/14W and 13E-14E drop-in deck work currently in-process. The QA recorded the information on the OBG tracking log.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

## Summary of Conversations:

As noted above



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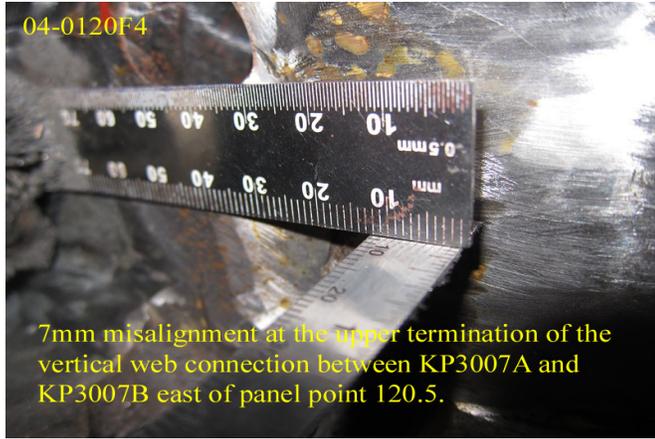
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## Comments

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.

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**Inspected By:** Patterson,Rodney

Quality Assurance Inspector

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**Reviewed By:** Levell,Bill

QA Reviewer