**DEPARTMENT OF TRANSPORTATION**
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

# WELDING INSPECTION REPORT

**Resident Engineer:** Siegenthaler, Peter
**Address:** 333 Burma Road
**City:** Oakland, CA 94607

**Report No:** WIR-026197
**Date Inspected:** 26-Aug-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:** 1530
**Location:** Jobsite

**CWI Name:** William Sherwood

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| **Inspected CWI report:** | ☐ Yes | ☑ No | ☐ N/A | **CWI Present:** | ☑ Yes | ☐ No | |
| **Electrode to specification:** | ☑ Yes | ☐ No | ☐ N/A | **Rod Oven in Use:** | ☑ Yes | ☐ No | ☐ N/A |
| **Qualified Welders:** | ☑ Yes | ☐ No | ☐ N/A | **Weld Procedures Followed:** | ☑ Yes | ☐ No | ☐ N/A |
| **Approved Drawings:** | ☑ 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:

1. 9E PP79.7 Pipe Welding (Exterior)
2. 9E PP81.2 Pipe Welding (Exterior)
3. 10E PP92 E3 Lifting Lug Hole (Interior)
4. 11E 12E Side Plate E (exterior)
5. 10W 11W Bottom Plate D R1 (Exterior)

1. 9E PP79.7 Pipe Welding (Exterior)

The QA inspector observed F.W. Spencer welder Curtis Jump ID# 7326 performing SMAW in the 1G flat and 3G vertical positions on 2.5 and 4 inch schedule 80 pipe located at 9E PP79.7 weld #21/2.5/80/NE and weld #21/4/80/NE. The QA inspector verified the fit up of the joints and found it to be satisfactory. The QA inspector observed the QC inspector identified as Steve Jensen monitoring the welding to ensure the welding parameters were in compliance pertaining to WPS-1-12-1 Revision 2 (1.12). The welder was observed implementing 6010 electrodes in the root pass with the balance using 7018 electrodes all of which in an uphill progression.
The QA inspector made subsequent observations through completion to monitor quality and noted that the work appears to be in general conformance with the contract documents.

2. 9E PP81.2 Pipe Welding (Exterior)

The QA inspector observed F.W. Spencer welder Curtis Jump ID# 7326 performing SMAW in the 1G flat and 3G vertical positions on 2.5 and 4 inch schedule 80 pipe located at 9E PP81.2 weld #22/2.5/81/NE and weld #22/4/81/NE. The QA inspector verified the fit up of the joints and found it to be satisfactory. The QA inspector observed the QC inspector identified as Steve Jensen monitoring the welding to ensure the welding parameters were in compliance pertaining to WPS-1-12-1 Revision 2 (1.12). The welder was observed implementing 6010 electrodes in the root pass with the balance using 7018 electrodes all of which in an uphill progression.
The QA inspector made subsequent observations through completion to monitor quality and noted that the work appears to be in general conformance with the contract documents.

3. 10E PP92 E3 Lifting Lug Hole (Interior)

The QA inspector observed the QC inspector identified as Fred Von Hoff perform Magnetic Particle Testing on the completed welds on lifting Lug Hole #1 and 3 at 10E PP92 E3 on the interior of the OBG. The QA inspector verified that the proper procedure was utilized as well as correct technique. The testing found no indications and the QA inspector verified the findings and noted that the work appears to be in general conformance with the contract documents.

4. 11E 12E Side Plate E (exterior)

The QA inspector randomly observed ABF welding operator James Zhen ID#6001 performing Flux Core Arc Welding with gas (FCAW-G) utilizing a “Bug-O” motorized rail system with a magnetic base attached in the 4G overhead position on the underside of side plate E, at 11E 12E of the OBG. The QA inspector observed the QC inspector identified as Steve Jensen monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-3042B-1. The parameters were recorded as (A=240/V=21.5/TS=180/HI=1.72). The QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appears to be in general conformance to the contract requirements.

5. 10W 11W Bottom Plate D R1 (Exterior)

The QA Inspector noted the dimensions of the excavations at D1 Y+80 as 85mm’s in length, 25mm’s wide and 10mm’s depth. Y+2005 as 150mm’s in length, 22mm’s wide and 11mm’s in depth. Y+2510 as 85mm’s in length, 18mm’s wide and 8mm’s depth. Y+2630 as 110mm’s in length, 21mm’s wide and 11mm’s depth. D2 Y+4115 as 90mm’s in length, 17mm’s wide and 10mm’s depth. The QA Inspector observed the QC Inspector identified as Jesus Cayabyab perform Magnetic Particle inspection on the sites and found them to be acceptable. The QA Inspector observed ABF welder Wai Kit Lai ID#2953 perform Shielded Metal Arc Welding (SMAW) in the 4G overhead position with the QC Inspector being present in order to monitor the welding and ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-1001-R. The QA Inspector noted that the work was completed on this date and appeared to be in general conformance with the contract documents.

# WELDING INSPECTION REPORT

*( Continued Page 3 of 3 )*

**Summary of Conversations:**

At the beginning the shift the QA inspector met with QC inspector William Sherwood 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.

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