

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

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-028805  
**Date Inspected:** 28-Nov-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:** 1730  
**Location:** Job Site

<b>CWI Name:</b>	As noted below.	<b>CWI Present:</b>	Yes	No
<b>Inspected CWI report:</b>	Yes No N/A	<b>Rod Oven in Use:</b>	Yes No N/A	
<b>Electrode to specification:</b>	Yes No N/A	<b>Weld Procedures Followed:</b>	Yes No N/A	
<b>Qualified Welders:</b>	Yes No N/A	<b>Verified Joint Fit-up:</b>	Yes No N/A	
<b>Approved Drawings:</b>	Yes No N/A	<b>Approved WPS:</b>	Yes No N/A	
		<b>Delayed / Cancelled:</b>	Yes No N/A	
<b>Bridge No:</b>	34-0006	<b>Component:</b>	Tower	

**Summary of Items Observed:**

Quality Assurance Inspector (QA) William Clifford 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:

## Ultrasonic Testing of ESW

## Tower Electroslag Mock-Up:

This QA performed Ultrasonic Testing (UT) of Tower Electroslag Complete Joint Penetration (CJP) shear plate mock-up.

This testing was performed in tandem with QC Ultrasonic technician Jesse Cayabyab in accordance with supplemental procedure SE-UT-D1.5-CT-108-ESW-R5.

Testing was performed to verify presence of transverse indications. This QA verified location, depth, and indication ratings for assigned indications at each joint. This mock-up was measured to be approximately 2300mm in length.

The following indications were observed. Due to joint configuration and weld cap shape, indications observed as having a transverse orientation could not be evaluated for length or "X" location.

Y locations are recorded as:

Y= 1830mm

A= 79db, B= 52db, C= 5db, D= 22db

SP= 93mm, DP= 31mm

---

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

---

Y= 1810mm

A= 79db, B= 52db, C= 7db, D= 19db

SP= 119mm, DP= 40mm

Y= 1710mm

A= 81db, B= 52db, C= 5db, D= 24db

SP= 93mm, DP= 31mm

Y= 1610mm

A= 80db, B= 52db, C= 6db, D= 22db

SP= 99mm, DP= 33mm

Y= 1500mm

A= 81db, B= 52db, C= 6db, D= 23db

SP= 100mm, DP= 34mm

Y= 1420mm

A= 81db, B= 52db, C= 6db, D= 23db

SP= 91mm, DP= 31mm

Y= 1290mm

A= 81db, B= 52db, C= 6db, D= 23db

SP= 97mm, DP= 32mm

Y= 1030mm

A= 79db, B= 52db, C= 6db, D= 21db

SP= 102mm, DP= 34mm

Y= 830mm

A= 81db, B= 52db, C= 8db, D= 21db

SP= 123mm, DP= 42mm

Y= 750mm

A= 81db, B= 52db, C= 12db, D= 17db

SP= 181mm, DP= 61mm

Y= 470mm

A= 79db, B= 52db, C= 8db, D= 19db

SP= 120mm, DP= 41mm

Y= 340mm

A= 79db, B= 52db, C= 7db, D= 20db

SP= 109mm, DP= 37mm

---

---

# WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---

---

Y= 230mm

A= 80db, B= 52db, C= 6db, D= 22db

SP= 106mm, DP= 36mm

Y= 170mm

A= 79db, B= 52db, C= 5db, D= 22db

SP= 90mm, DP= 31mm

Y= 100mm

A= 81db, B= 52db, C= 5db, D= 24db

SP= 89mm, DP= 30mm

Planar Indication:

Y= 1100mm, L= 10mm

A= 71db, B= 52db, C= 9db, D= 10db

SP= 138mm, DP= 46mm

This QA performed UT of samples in accordance with the approved supplemental procedure. This testing was performed in tandem with QC technician Jesse Cayabyab. Tandem report for work performed on this date will be completed by QC technician and signed by both QA/QC parties. Items listed on tandem report reflect indications agreed upon by QA/QC. Due to QA/QC disagreement on indication interpretation, tandem report may not reflect all indications discovered by QA at time of testing.

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

**Summary of Conversations:**

Conversation was relevant to testing performed during this shift.

**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 Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

---

**Inspected By:** Clifford, William

Quality Assurance Inspector

---

**Reviewed By:** Reyes, Danny

QA Reviewer