

**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-028081  
**Date Inspected:** 31-Jul-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:** 1930  
**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:

**Electroslag Weld Excavation / Repair**

This QA observed, at random intervals, ABF/JV qualified welder James Zhen #6001 continue performing Flux Core Arc Welding (FCAW) implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3000-3Repair. The joint being welded was tower shear plate designated as ESW weld, location "P" from face B.

Weld "P" - Y= 7250mm, L= 250mm, W= 80mm, D= 53mm

During welding, ABF Quality Control (QC) Bernard Docena was noted monitoring the welding parameters.

This QA observed, at random intervals, ABF/JV qualified welder James Zhen #6001 performing Flux Core Arc Welding (FCAW) implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3000-3Repair. The joint being welded was tower shear plate designated as ESW weld, location "P" from face B.

Weld "P" - Y= 7830mm, L= 220mm, W= 52mm, D= 50mm

During welding, ABF Quality Control (QC) Bernard Docena was noted monitoring the welding parameters.

This QA observed, at random intervals, ABF/JV welding personnel Xiao Jian Wan #9677 performing excavation of an Electroslag Weld (ESW) previously Ultrasonic Tested (UT) by Quality Control (QC) technicians.

---

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

---

The UT discovered indication was found to be oriented in the longitudinal position. The indication was found to be rejectable per AWS D1.5 Table 6.4).

The weld being excavated is designated as “ESW Q” and was excavated on Face B at location:

Weld “Q” - Y= 6450mm, L= 950mm, W= 90mm, D= 53mm

Both QA and QC performed Magnetic Particle Testing (MT) and photographed discovered indications.

Excavation at this area was started on a previous shift. This QA did not perform visual confirmation of the UT rejectable indication.

This QA observed, at random intervals, ABF/JV welding personnel Xiao Jian Wan #9677 performing excavation of an Electroslag Weld (ESW) previously Ultrasonic Tested (UT) by Quality Control (QC) technicians.

The UT discovered indication was found to be oriented in the longitudinal position. The indication was found to be rejectable per AWS D1.5 Table 6.4).

The weld being excavated is designated as “ESW Q” and was excavated on Face B at location:

Weld “Q” - Y= 3150mm, L= 420mm, W= 75mm, D= 53mm

Near completion of this excavation this QA observed and photographed one (1) grouping of porosity located at the side wall.

### Magnetic Particle Testing

This QA Inspector performed Magnetic Particle Testing (MT) of completed weld repair excavation on tower ESW “Q”. This QA observed no rejectable indications at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

Measurements for excavations are:

Weld “Q” - Y= 6450mm, L= 950mm, W= 90mm, D= 53mm

This QA Inspector performed Magnetic Particle Testing (MT) of completed weld repair excavation on tower ESW “Q”. This QA observed no rejectable indications at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

Measurements for excavations are:

Weld “Q” - Y= 3150mm, L= 420mm, W= 75mm, D= 53mm

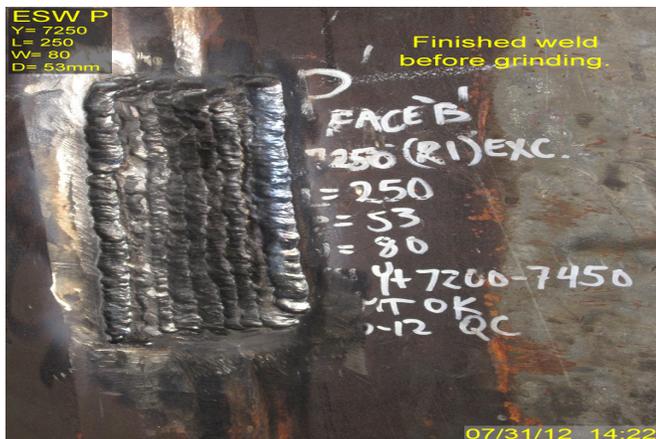
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

---

# WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---



## Summary of Conversations:

Conversations were relevant to work performed.

## 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 SMR Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

---

**Inspected By:** Clifford, William

Quality Assurance Inspector

---

**Reviewed By:** Levell, Bill

QA Reviewer