

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
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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-027974  
**Date Inspected:** 16-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 Component	

**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****ESW H, Face A:**

This QA performed Ultrasonic Testing (UT) on approximately 500mm of Tower Electroslag Complete Joint Penetration (CJP) shear plate weld designated as "ESW H" face A. Location (Y=6000~6500) of this weld was inspected using this testing method.

This weld was previously accepted by QC Ultrasonic technicians in accordance with supplemental procedure SE-UT-D1.5-CT-108-ESW-R5.

This QA observed no recordable indications at the time of testing.

This QA observed no transverse indications at the time of testing.

This QA generated a TL-6027 UT report on this date.

**ESW J, Face B:**

This QA performed Ultrasonic Testing (UT) on approximately 1830mm of Tower Electroslag Complete Joint Penetration (CJP) shear plate weld designated as "ESW J" face B. Location (Y=90~1920) of this weld was inspected using this testing method.

This weld was previously accepted by QC Ultrasonic technicians in accordance with supplemental procedure SE-UT-D1.5-CT-108-ESW-R5.

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This QA observed three (3)] recordable indications at the time of testing.

This QA generated a TL-6027 UT report on this date.

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

Indication #1: Y= 275mm

Sizing – A=80db, B= 54db, C= 4db, D= 22db

Sound Path= 81.23mm, Depth= 26.17mm

Indication #2: Y= 495mm

Sizing – A=73db, B= 54db, C= 7db, D= 12db

Sound Path= 114.8mm, Depth= 37.02mm

Indication #3: Y= 495mm

Sizing – A=73db, B= 54db, C= 6db, D= 13db

Sound Path= 102.4mm, Depth= 33.02mm

Indication #4: Y= 600mm

Sizing – A=78db, B= 54db, C= 5db, D= 19db

Sound Path= 93.27mm, Depth= 30.04mm

Indication #5: Y= 680mm

Sizing – A=81db, B= 54db, C= 9db, D= 18db

Sound Path= 141.1mm, Depth= 45.48mm

Indication #6: Y= 775mm

Sizing – A=79db, B= 54db, C= 9db, D= 15db

Sound Path= 136.5mm, Depth= 44.00mm

Indication #7: Y= 820mm

Sizing – A=82db, B= 54db, C= 3db, D= 25db

Sound Path= 69.12mm, Depth= 22.27mm

Indication #8: Y= 900mm

Sizing – A=83db, B= 54db, C= 9db, D= 20db

Sound Path= 137.6mm, Depth= 44.35mm

Indication #9: Y= 920mm

Sizing – A=83db, B= 54db, C= 7db, D= 22db

Sound Path= 109.8mm, Depth= 35.40mm

Indication #10: Y= 1040mm

Sizing – A=83db, B= 54db, C= 6db, D= 23db

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Sound Path= 106.9mm, Depth= 34.45mm

Indication #11: Y= 1785mm

Sizing – A=80db, B= 54db, C= 6db, D= 20db

Sound Path= 98.23mm, Depth= 31.65mm

Indication #12: Y= 1830mm

Sizing – A=78db, B= 54db, C= 9db, D= 15db

Sound Path= 138.3mm, Depth= 44.59mm

Indication #13: Y= 1865mm

Sizing – A=80db, B= 54db, C= 7db, D= 19db

Sound Path= 108.2mm, Depth= 34.88mm

Indication #14: Y= 1890mm

Sizing – A=78db, B= 54db, C= 5db, D= 19db

Sound Path= 93.07mm, Depth= 29.99mm

Indication #15: Y= 1915mm

Sizing – A=77db, B= 54db, C= 5db, D= 18db

Sound Path= 93.01mm, Depth= 29.97mm

This QA performed UT of weld designated as ESW H in accordance with the approved supplemental procedure. This testing was performed in tandem with QC technician Scott Kortum. 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. Please see TL-6027 for complete listing of QA recorded indications.

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

**Summary of Conversations:**

Conversations were relevant to testing 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.

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<b>Inspected By:</b>	Clifford,William	Quality Assurance Inspector
<b>Reviewed By:</b>	Levell,Bill	QA Reviewer

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