

**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-029816  
**Date Inspected:** 17-Jul-2013

**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>	Jesus Cayabyab	<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>	SAS Tower	

**Summary of Items Observed:**

Caltrans Quality Assurance Inspector (QA) Joe Adame arrived at the American Bridge/Fluor (ABF) job site between the times noted above in order to monitor ABF Quality Control functions and the in work being performed by ABF personnel. The following items were observed:

## Tower Electroslag Welds (ESW)

RWR-201305-008

ESW S-043, Location "T"- Face A, B:

QA performed Ultrasonic Testing (UT) on approximately 2630mm of Tower Electroslag Complete Joint Penetration (CJP) shear plate weld designated as ESW "T" face A,B. Location -Excavation Y=5000mm~7030mm and additional HAZ areas from- 4700mm~5000mm, 7030mm~7330mm of this weld was inspected using this testing method.

No rejectable or recordable indications were observed.

QA performed UT of the above mentioned ESW location in accordance with the ABF approved supplemental procedure for confirmation and evaluation of planar type defects. 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. Please see TL-6027 for items inspected on this date.

## Exploratory excavation

ESW S-045,"G"-Face A:

The QA Inspector was present to observe ABF welder Kit Lai (WID-2953) performing exploratory excavation of ESW "G" Face A @ Y-9090mm to verify indications observed during Ultrasonic Testing pulse/echo & pitch/catch.

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## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

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QC Inspector Jesse Cayayab stated that Mr. Lai will excavate every 5mm deep and allow QC/QA to inspect the excavation. After grinding to bright metal the QC Inspector performed MT testing of the excavation to inspect for planar indications at each hold point. The QA Inspector also performed MT inspection throughout the process and the final excavation. Details of the repair excavation are as follows:

ESW "G", Face A

Indication originally reported at Y= 9090mm, X=+5

WeId excavated at 11mm-No indication observed.

WeId excavated at 18mm-No indication observed.

WeId excavated at 22mm-No indication observed.

WeId excavated at 31mm-No indication observed

WeId excavated at 38mm-No indication observed.

WeId excavated at 41mm-No indication observed

Final excavation Y=8950mm~9170mm, Length=220mm, Width=53mm & Depth=41mm.

ABF QC Representative Chris Chew stated that ABF do not have approval to weld the ESW PC excavation

locations at this time and will only be excavating to verify the indications and remove them. ABF will also submit

ABF QC Inspector Jesse Cayayab stated that he would complete ABF daily inspection report and magnetic particle testing report to detail the findings. See TL-6028 for additional details on items inspected.

Exploratory excavation

ESW S-041,"S"-Face A:

The QA Inspector was present to observe ABF welder Eric Sparks (WID-3040) performing exploratory excavation of ESW "S" Face A @ Y-8620mm to verify indications observed during Ultrasonic Testing pulse/echo &

pitch/catch. ABF QC Office Engineer Chris Chew stated that ABF have instructed Mr. Sparks to excavate to the reported depth of the indication since it is an indisputable planar indication per the indication level (-11db) on the

UT report of 7/1/2013. After grinding to bright metal the QC Inspector performed MT testing of the excavation to inspect for planar indications at each hold point. The QA Inspector also performed MT inspection throughout the process and the final excavation. Location of the planar indication observed in the excavation was:

ESW "S", Face A

Indication first discovered at Y= (Original) 8620mm, X= -18mm

Indication visible at: 27mm deep, 35mm long

Indication visible at: 35mm deep, 20mm long

Indication removed at: 43 mm deep

Final excavation Y=8580mm~8730mm, Length=150mm, Width=50mm & Depth=43mm.

ABF QC Office Engineer Chris Chew stated ABF have approval to weld the ESW PC excavation at this location per RWR 201307-003. The QA/QC Inspectors did verify that the planar type indication was removed on this shift.

ABF will also submit ABF QC Inspector Jesse Cayayab stated that he would complete ABF daily inspection report and magnetic particle testing report to detail the findings. See TL-6028 for additional details on items inspected.

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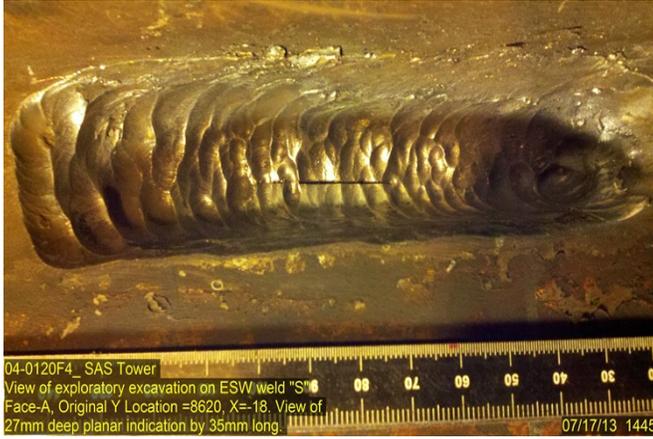
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# WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

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## Summary of Conversations:

Only general conversations with ABF/JV QC NDT personnel relevant to work and 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.

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<b>Inspected By:</b>	Adame,Joe	Quality Assurance Inspector
<b>Reviewed By:</b>	Mertz,Robert	QA Reviewer

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