

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: 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-027903**Date Inspected:** 02-Jul-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job site

<b>CWI Name:</b>	N/A	<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 (QAI) Rodney Patterson 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 (Tower ESW-E-045- "B" from Y=3800~5890 Face B)**

This QAI performed 100% Joint Ultrasonic Testing (UT), together with ABF QC inspector John Pagliero, on the Tower Complete Joint Penetration (CJP) butt joint shear plate connection designated as ESW-E-045- "B" from Face B. The QA/QC joint inspection team did not observe transverse indications from Y=3800~5890 from Face B at the time of inspection.

A total of one (1) recordable planar longitudinal indication was observed at the time of inspection. The indication details are as follows;

Y=3940, X= +15, Sound Path=159, Depth=54, Length 20mm, +1 db Rating

**Ultrasonic Testing (Tower ESW- E-045 #24 "F" from Y=0~4200 Face B)**

This QAI performed 100% Joint Ultrasonic Testing (UT), together with ABF QC inspector John Pagliero, on the Tower Complete Joint Penetration (CJP) Tee joint shear plate connection designated as ESW- E-045 #24 "F" from Face B. Due to a repair excavation of a known linear indication, the joint inspection team was unable to test the weld from Y=3440~3720.

The results of the QA/QC joint inspection are as follows;

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Recordable Planar Longitudinal Indications (Y=0~4200)

Y=2130, X= -5, Sound Path=64, Depth From A=37mm, Length 15mm,+13 db Rating

Rejectable Longitudinal Indications (Y=0~4200)

Y=3920, X= -35, Sound Path=197, Depth From A=9mm, Length 65mm, -3 db Rating

Transverse Indications (Y=0~4200)

Y=200, Sound Path=95, Depth from Face A=27, AWS db Rating = +17

Y=320, Sound Path=91, Depth from Face A=28, AWS db Rating = +19

Y=380, Sound Path=120, Depth from Face A=18, AWS db Rating = +22

Y=480, Sound Path=92, Depth from Face A=28, AWS db Rating = +10

Y=520, Sound Path=91, Depth from Face A=28, AWS db Rating = +18

Y=570, Sound Path=98, Depth from Face A=26, AWS db Rating = +17

Y=730, Sound Path=80-, Depth from Face A=32, AWS db Rating = +17

Y=900, Sound Path=80, Depth from Face A=32, AWS db Rating = +16

Y=940, Sound Path=94, Depth from Face A=27, AWS db Rating = +23

Y=1090, Sound Path=132, Depth from Face A=14, AWS db Rating = +10

Y=1245, Sound Path=122, Depth from Face A=17, AWS db Rating = +4

Y=1470, Sound Path=104, Depth from Face A=24, AWS db Rating = +17

Y=2140, Sound Path=113, Depth from Face A=20, AWS db Rating = +19

Y=2750, Sound Path=98, Depth from Face A=26, AWS db Rating = +20

Y=2780, Sound Path=95, Depth from Face A=27, AWS db Rating = +19

Y=3250, Sound Path=69, Depth from Face A=36, AWS db Rating = +18

Y=3700, Sound Path=81, Depth from Face A=32, AWS db Rating = +23

Y=4020, Sound Path=91, Depth from Face A=28, AWS db Rating = +11

Y=4160, Sound Path=104, Depth from Face A=23, AWS db Rating = +16

Y=4180, Sound Path=85, Depth from Face A=30, AWS db Rating = +20

The QA/QC joint inspection on this date was performed in accordance AWS D1.5-2002, section 6, table 6.4 and supplemental UT procedure SE-UT-D1.5-CT-108-ESW-R5. Due to the presence of weld reinforcement the QAI was unable to size the length and measure the "X" location on the welds in way of the indications observed that were oriented transverse to the weld.

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

**Summary of Conversations:**

No relevant conversations.

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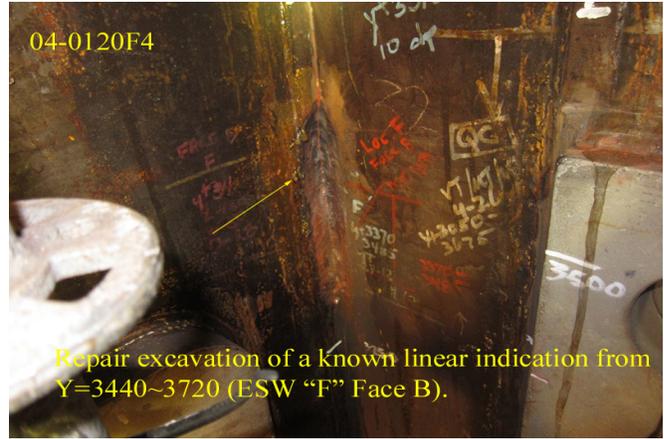
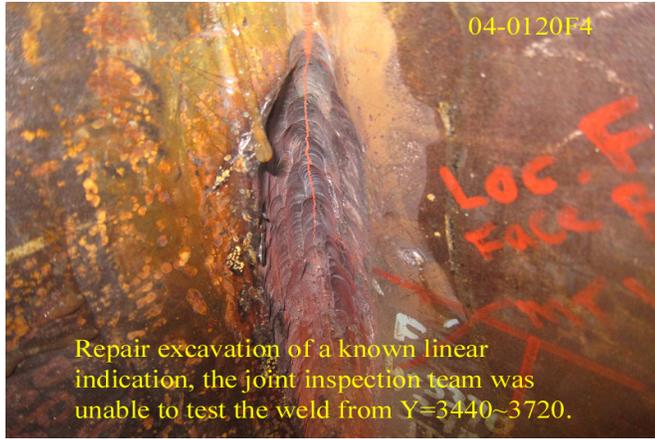
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## Comments

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:** Patterson,Rodney

Quality Assurance Inspector

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**Reviewed By:** Levell,Bill

QA Reviewer