

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 #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017433**Date Inspected:** 27-Sep-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Yu Dong Ping
Inspected CWI report: Yes No N/A
Electrode to specification: Yes No N/A
Qualified Welders: Yes No N/A
Approved Drawings: Yes No N/A

CWI Present: Yes No
Rod Oven in Use: Yes No N/A
Weld Procedures Followed: Yes No N/A
Verified Joint Fit-up: Yes No N/A
Approved WPS: Yes No N/A
Delayed / Cancelled: Yes No N/A

Bridge No: 34-0006**Component:** Tower & OBG Components**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

BAY#10

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 02 located on Façade channel built-up assembly ND1 – SFSA4 – 328A/B. Welder is identified as 056364. ZPMC Quality Control (QC) Inspector is identified as Yin Chun Fang. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2114.

Weld joint # 11 located on Façade channel built-up assembly SD1 – SFSA4 – 63. Welder is identified as 050289. ZPMC Quality Control (QC) Inspector is identified as Yin Chun Fang. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2114.

Weld joint # 01 located on Façade channel built-up assembly ND1 – SFSA4 – 328A/B. Welder is identified as 056200. ZPMC Quality Control (QC) Inspector is identified as Yin Chun Fang. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2114.

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Weld joint # 12 located on Façade channel built-up assembly SD1 – SFSA4 – 63. Welder is identified as 052493. ZPMC Quality Control (QC) Inspector is identified as Yin Chun Fang. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2114.

Surface Welding by Shielded Metal Arc Welding (SMAW):

Surface welding / buttering being performed as per the weld repair report T-WR3550 on lift-4 internal splice plate S4-D4. Welder is identified as 056364. ZPMC Quality Control (QC) Inspector is identified as Sun Tian Liang. The welding variables recorded by QC appeared to comply with the WPS – 485 – SMAW – 2G (2F) – Repair.

BAY#11

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 11A located on Lift-5 Bracket ND1 – BRSA5 – 2. Welder is identified as 054460. ZPMC Quality Control (QC) Inspector is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – Tc – U4b.

Weld joint # 07A located on Lift-5 Bracket ND1 – BRSA5 – 2. Welder is identified as 044541. ZPMC Quality Control (QC) Inspector is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – Tc – U4b.

ORTHOTROPIC BOX GIRDER (OBG) AT BAY#11

This QA Inspector observed the following work in progress

Fluxcored Arc Welding (FCAW):

Weld joint # 105 located on Bike Path BK004A8 – 017. Welder is identified as 049220. ZPMC Quality Control (QC) Inspector is identified as Shang Hai Long. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2131.

Weld joint # 055 located on Bike Path BK004A1 – 021. Welder is identified as 205649. ZPMC Quality Control (QC) Inspector is identified as Shang Hai Long. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2131.

Weld joint # 104 located on Bike Path BK004A8 – 017. Welder is identified as 049220. ZPMC Quality Control (QC) Inspector is identified as Shang Hai Long. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2131.

BACKING BAR SURVEY ON LIFT-5 TOWER SHAFTS AT BAY#10 & 11

During survey the following issues were discovered on lift-5 tower shafts: -

EAST TOWER LIFT-5: (ESD1 – TL5 – 2B-F)

1. Backing bar is not continuous between the welds (WELD#22 & 42) and buckled (WELD#22)
2. Backing bar is not continuous between the welds (WELD#23 & 41)

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WEST TOWER LIFT-5: (WSD1 – TL5 – 4B-F)

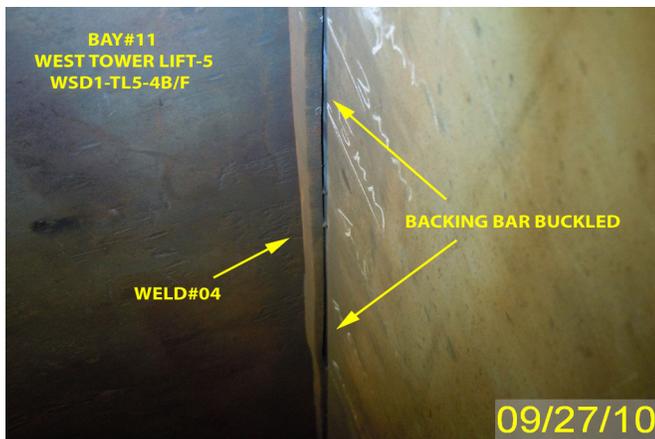
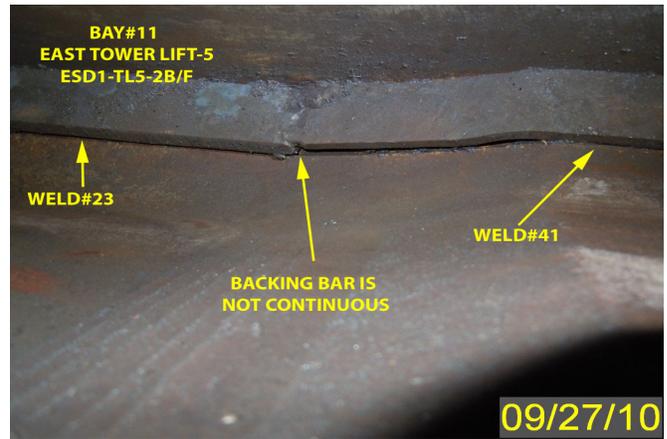
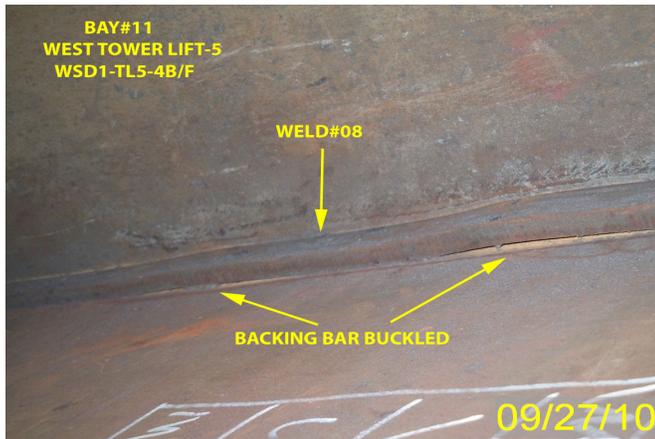
1. Backing bar buckled at 2 different locations (WELD#04)
2. Backing bar is not continuous between the welds and buckled at 3 different locations (WSD1-TL5-4B-F#08&35)

SOUTH TOWER LIFT-5: At 9 different locations backing bar has been continuously welded full length of the weld with the base material.

NORTH TOWER LIFT-5: At 9 different locations backing bar has been continuously welded full length of the weld with the base material.

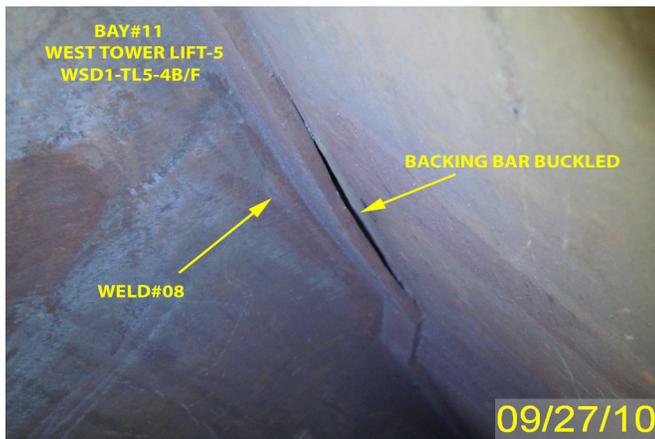
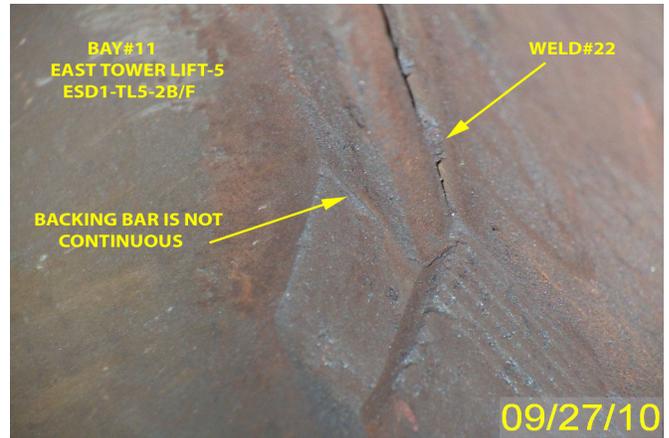
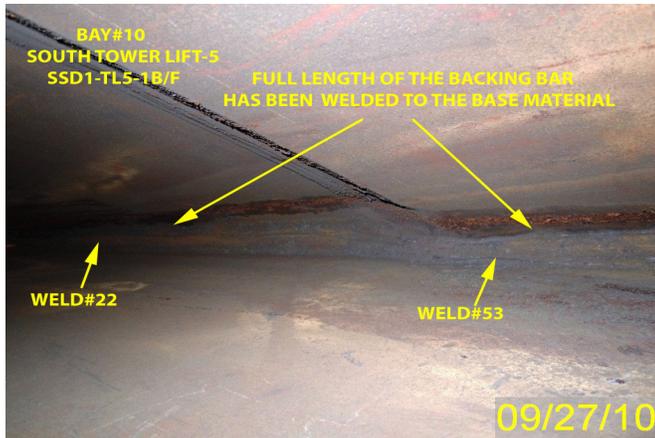
For further information see attached pictures:

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



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Summary of Conversations:

No Relevant Conversations.

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 Michael Ng - 15921845703, who represents the Office of Structural Materials for your project.

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Inspected By:	Kumar,Sandeep	Quality Assurance Inspector
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Reviewed By:	Clifford,William	QA Reviewer
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