

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-018351**Date Inspected:** 18-Nov-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:** Xu Le Feng**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** 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.

TOWER JETTY

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 007398

Ultrasonic Testing (UT)

This QA inspector performed UT of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The member is identified as Tower Component. The weld designation reviewed as follows:

EAST TOWER LIFT-4 AT 119M ELEVATION, BACKFILL PLATE

ESD1 – FASA4 – 2B/E # 05; 26

ESD1 – FASA4 – 2B/F # 08

WEST TOWER LIFT-4 AT 119M ELEVATION, BACKFILL PLATE

WSD1 – FASA4 – 2B/E # 06; 27

WSD1 – FASA4 – 4B/F # 07

BAY#10

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This QA Inspector observed the following work in progress

Fluxcored Arc Welding (FCAW):

Weld joint # 006 located on Façade Channel built-up assembly, ND1-SFSA4-90-3. Welder is identified as 057266.

ZPMC Quality Control (QC) Inspector is identified as Jiang Xiao Bo. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

Weld joint # 010 located on Façade Channel built-up assembly, ND1-SFSA4-710-2. Welder is identified as 057266. ZPMC Quality Control (QC) Inspector is identified as Jiang Xiao Bo. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

Weld joint # 001 located on Façade Channel built-up assembly, ND1-SFSA4-38. Welder is identified as 057266. ZPMC Quality Control (QC) Inspector is identified as Jiang Xiao Bo. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

Shielded Metal Arc Welding (SMAW):

Weld joint # 002 located on Façade Channel built-up assembly, ND1-SFSA4-90-3. Welder is identified as 050038.

ZPMC Quality Control (QC) Inspector is identified as Jiang Xiao Bo. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2114.

Weld joint # 005 located on Façade Channel built-up assembly, ND1-SFSA4-710-2. Welder is identified as 057220. ZPMC Quality Control (QC) Inspector is identified as Jiang Xiao Bo. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2114.

Weld joint # 011 located on Façade Channel built-up assembly, ND1-SFSA4-9. Welder is identified as 050038. ZPMC Quality Control (QC) Inspector is identified as Jiang Xiao Bo. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2114.

ORTHOTROPIC BOX GIRDER (OBG) AT BAY#10

This QA Inspector observed the following work in progress

Fluxcored Arc Welding (FCAW):

Plug Welding by FCAW:

Weld joint # 14 located on Bike Path BK004A – 028. Welder is identified as 053869. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Lai. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – 2 – PLUG.

Weld joint # 20 located on Bike Path BK004A – 028. Welder is identified as 052493. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Lai. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – 2 – PLUG.

BAY#11

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 19B located on Lift-5 bracket SD1 – BRSA5 – 1. Welder is identified as 054460. ZPMC Quality

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Control (QC) Inspector is identified as Xu Jie. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – TC – U5b.

This QA Inspector observed the following work not in compliance:

Description of Incident:

During the Caltrans Quality Assurance (QA) dimensional verification on Lift-4 Tower Struts, this QA Inspector discovered the following issue:

- One of the type-3A tower struts measured to be approximately 1858 mm in length.
- As per the ABF-RFI-1945R01, type-3 struts length cannot be shorter than 1860 mm.
- Tower strut identified as SD1-STSA4-5-139M-1.
- The component located at fabrication Bay#11.

Applicable reference:

ABF-RF1-001945R01 – “STRUTS CANNOT BE SHORTER THAN 1860 MM FOR TYPE-3”

For further information see attached pictures:

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



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 Thomas Ho- 15002048250, who represents the Office of Structural Materials for your project.

Inspected By: Kumar,Sandeep

Quality Assurance Inspector

Reviewed By: Clifford,William

QA Reviewer