

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 #: 99.28**WELDING INSPECTION REPORT**

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-027053
Date Inspected: 17-Jan-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: L & M Industrial Fabricators

OSM Arrival Time: 700
OSM Departure Time: 1530
Location: Tangent, Oregon

CWI Name:	Tom Dreyer	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 Head Parapet Wall	

Summary of Items Observed:

This Quality Assurance (QA) Inspector, Art Peterson arrived at L & M Industrial Fabricators between the times noted above to randomly observe Quality Control (QC) personnel monitor the welding operations performed by L & M personnel on the fabrication of chimney parapet walls to the Tower Head. The following observations for the extra work being performed to the following contract change order were:

CCO: 196 - Description: Construct parapet walls at the Tower Heads

South Chimney Parapet:

This QA Inspector randomly observed L & M welder Corey Hoyer (Welder ID #6) performing the root, fill, and cover pass weld operation on a complete-joint-penetration (CJP) groove weld per the Flux Cored Arc Welding (FCAW-G) gas shielding process in the (3G) vertical position connecting the parapet wall base plate-A8a to A8b-wall plate of the South Tower Head. This QA Inspector observed QC Inspector Tom Dreyer verify prior to the start of the root pass weld operation that the minimum preheat temperature as per the WPS was established and afterwards verified that the welding parameters (Amps, Volts and Travel Speed) were in accordance with WPS-D1.5-FC-TC-U4b-GF using Hobart Excel Arc E71T-1 (.052") diameter electrode.

The WPS-D1.5-FC-TC-U4b-GF was submitted as an addendum to their WQCP Submittal 2510, Rev. 2 was submitted to the Engineer for approval but has yet to be approved. This QA Inspector generated an Incident Report on January 12th 2012 for the contractor proceeding with the welding operation without prior approval of the WQCP and/or addendum's.

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This QA Inspector randomly observed L & M welder Bradford Schroyer (Welder ID #16) performing the root, fill, and cover pass weld operation on a complete-joint-penetration (CJP) groove weld per the Flux Cored Arc Welding (FCAW-G) gas shielding process in the (3G) vertical position connecting the parapet wall base plate-A6a to A6b-wall plate of the South Tower Head. This QA Inspector observed QC Inspector Tom Dreyer verify prior to the start of the root pass weld operation that the minimum preheat temperature as per the approved WPS was established and afterwards verified that the welding parameters (Amps, Volts and Travel Speed) were in accordance with WPS-D1.5-FC-TC-U4b-GF using Hobart Excel Arc E71T-1 (.052") diameter electrode.

The WPS-D1.5-FC-TC-U4b-GF was submitted as an addendum to their WQCP Submittal 2510, Rev. 2 was submitted to the Engineer for approval but has yet to be approved. This QA Inspector generated an Incident Report on January 12th 2012 for the contractor proceeding with the welding operation without prior approval of the WQCP and/or addendum's.

North Chimney Parapet:

This QA Inspector randomly observed L & M welder David Harrington (Welder ID #34) performing the root, fill, and cover pass weld operation on partial-joint-penetration (PJP) groove weld per the Flux Cored Arc Welding (FCAW-G) gas shielding process in the (3G) vertical position connecting the parapet's wall top plate-A5d to A5b-wall plate of the South Tower Head. This QA Inspector observed QC Inspector Tom Dreyer verify prior to the start of the root pass weld operation that the minimum preheat temperature as per the approved WPS was established and afterwards verified that the welding parameters (Amps, Volts and Travel Speed) were in accordance with WPS-D1.5-FC-B-P3-GF using Hobart Excel Arc E71T-1 (.052") diameter electrode.

The WPS-D1.5-FC-B-P3-GF was submitted as an addendum to their WQCP Submittal 2510, Rev. 2 was submitted to the Engineer for approval but has yet to be approved. This QA Inspector generated an Incident Report on January 12th 2012 for the contractor proceeding with the welding operation without prior approval of the WQCP and/or addendum's.

This QA Inspector randomly observed L & M welder Jake Schuld (Welder ID #17) performing the root, fill, and cover pass weld operation on a partial-joint-penetration (PJP) groove weld per the Flux Cored Arc Welding (FCAW-G) gas shielding process in the (3G) vertical position connecting the parapet's wall top plate-A8d to A8b-wall plate of the South Tower Head. This QA Inspector observed QC Inspector Tom Dreyer verify prior to the start of the root pass weld operation that the minimum preheat temperature as per the approved WPS was established and afterwards verified that the welding parameters (Amps, Volts and Travel Speed) were in accordance with WPS-D1.5-FC-B-P3-GF using Hobart Excel Arc E71T-1 (.052") diameter electrode.

The WPS-D1.5-FC-B-P3-GF was submitted as an addendum to their WQCP Submittal 2510, Rev. 2 was submitted to the Engineer for approval but has yet to be approved. This QA Inspector generated an Incident Report on January 12th 2012 for the contractor proceeding with the welding operation without prior approval of the WQCP and/or addendum's.

East Chimney Parapet:

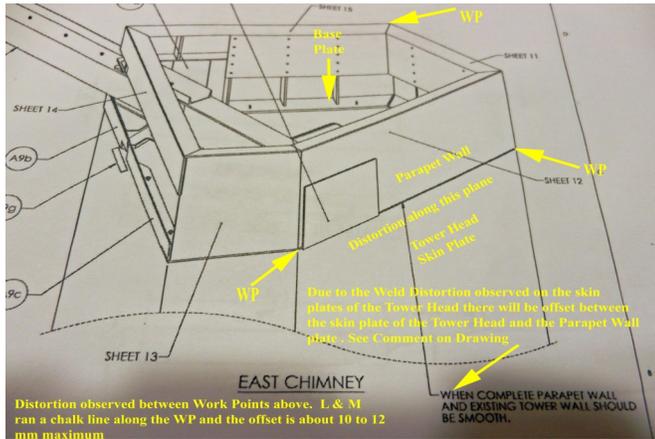
This QA Inspector randomly observed at (2) locations on the (East) tower head skin plates at the A11 and A12 sides of the parapet wall as shown on Submittal 2567 R1 page 10 of 16 that will fit to the tower head, weld distortion between the Work Points (WP) from the fabrication of the East Tower Head performed at ZPMC on

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Changxing Island, China. L & M personnel ran a chalk line from WP to WP and observed a maximum of 12 mm difference between the chalk line from WP to WP to the edge of the Tower Head Skin plate at the aforementioned locations.

L & M management personnel are currently discussing their options with their Client the disposition and the means and methods to meet the drawing requirement that states "When complete parapet wall and existing tower wall should be smooth". See attached photo of the drawing and the note with the requirement to be smooth.



Summary of Conversations:

Only general conversations between the QC Inspector and QA.

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.

Inspected By:	Peterson, Art	Quality Assurance Inspector
Reviewed By:	Levell, Bill	QA Reviewer
