

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-027103
Date Inspected: 27-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	

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 and the NDT inspection on the fabrication of chimney parapet walls to the Tower Head Top Plate. 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

North Tower Chimney Parapet:

This QA Inspector randomly observed L & M welder Jake Schuld (Welder ID #17) performing the repair weld operation per the Flux Cored Arc Welding (FCAW-G) gas shielding process in the (2G) horizontal position on the CJP weld connecting the parapet wall base plate-(A8a) to the parapet wall plate-(A8b) of the North Tower Chimney Head. The QC NDT Inspector magnetically particle tested the CJP weld and observed four (4) rejectable transverse linear indications at "Y" Location (495) mm, "Y" Location (972) mm, "Y" Location (1054) mm, and "Y" Location (1251) mm. This QA Inspector observed QC Inspector Tom Dreyer verify prior to the start of the repair weld operation that the minimum preheat temperature as per the approved repair WPS was established and afterwards verified that the welding parameters (Amps and Volts) were in accordance with WPS-LM-FC-01 Repair using Hobart Excel Arc E71T-1 (.052") diameter electrode.

North Tower Chimney Parapet:

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This QA Inspector randomly observed L & M welder David Harrington (Welder ID #34) performing the repair weld operation per the Flux Cored Arc Welding (FCAW-G) gas shielding process in the (2G) horizontal position on the CJP weld connecting the parapet wall base plate-(A5a) to the parapet wall plate-(A5b) of the North Tower Chimney Head. The QC NDT Inspector magnetically particle tested the CJP weld and observed two (2) rejectable transverse linear indications at "Y" Location (200) mm and "Y" Location (355) mm. This QA Inspector observed QC Inspector Tom Dreyer verify prior to the start of the repair weld operation that the minimum preheat temperature as per the approved repair WPS was established and afterwards verified that the welding parameters (Amps and Volts) were in accordance with WPS-LM-FC-01 Repair using Hobart Excel Arc E71T-1 (.052") diameter electrode.

North Tower Chimney Parapet:

This QA Inspector randomly observed L & M welder David Harrington (Welder ID #34) performing the fillet weld pass operation per the Flux Cored Arc Welding (FCAW-G) gas shielding process in the (2G) horizontal position connecting the stiffener plate (A7e) to the internal side of parapet wall plate-(A7b) of the North Tower Chimney Head. This QA Inspector observed QC Inspector Tom Dreyer verify prior to the start of the fillet 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-006-2F using Hobart Excel Arc E71T-1 (.052") diameter electrode.

North Tower Chimney Parapet:

This QA Inspector observed L & M Industrial Fabricators Quality Control (QC) NDT Inspector Leo Jim performing NDT Magnetic Particle Test (MT) inspection on the complete-joint penetration (CJP) parapet wall plate to parapet wall base plate corner-joint weld and the partial-joint penetration (PJP) parapet wall base plate to Tower Head top plate corner-joint groove weld on the North Tower Head Chimney. The NDT was performed in accordance with L & M Industrial Fabricator's Weld Quality Control Plan (WQCP) - ABF Submittal 2510 Rev. 1. The weld joint numbers inspected and the QC NDT Inspector's test results were:

A4a base plate CJP corner joint welded to A4b wall plate- No MT Longitudinal or Transverse Indications detected.

A4a base plate PJP corner joint to Tower Head top plate - No MT Longitudinal or Transverse Indications detected.

A5a base plate CJP corner joint welded to A5b wall plate- (2) MT Transverse Linear Indications detected.

A5a base plate PJP corner joint to Tower Head top plate - No MT Longitudinal or Transverse Indications detected.

A6a base plate CJP corner joint welded to A6b wall plate- No MT Longitudinal Transverse Indications detected.

A6a base plate PJP corner joint to Tower Head top plate - (1) MT Longitudinal Linear Indication detected.

A7a base plate CJP corner joint welded to A7b wall plate- No MT Longitudinal or Transverse Indications detected.

A7a base plate PJP corner joint to Tower Head top plate - No MT Longitudinal or Transverse Indications detected.

A8a base plate CJP corner joint welded to A8b wall plate- (4) MT Transverse Linear Indications detected.

A8a base plate PJP corner joint to Tower Head top plate - No MT Longitudinal or Transverse Indications detected.

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Summary of Conversations:

No significant conversations were reportable on this date.

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: Mertz, Robert

QA Reviewer