DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 99.28

WELDING INSPECTION REPORT

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

Report No: WIR-030056
Date Inspected: 16-Sep-2013

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1730
Location: Job Site

CWI Name:	Bernie Docena,Tony Sherwood			**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: SAS Tower

Summary of Items Observed:

Caltrans Quality Assurance Inspector Simion Ramirez (QA Inspector) arrived at job site. QA Inspector performed random QA visual testing (VT) of on going ABF production work and monitored the contractor quality control operations.

Tower Skirt: Skirt Plate #2, Weld Jt's #157 south shaft, #156 north shaft, #157 west shaft
ABF personnel fit-up and welded the top 500mm of each vertical PJP splice weld noted above, at skirt plate #2. The welding procedure specification (WPS) #ABF-WPS-D15-2140-3 for flux core arc welding (FCAW) was available for reference on site by QC Inspectors and welders. QC Inspector verified joint fit-up and pre-heat. QC Inspector verified electrical welding parameters at the start of shift and randomly until the end of shift. Root passes of the welds noted above were magnetic particle tested (MT)by QC. The root pass, intermediate pass and weld cover passes were installed in the groove on the exterior face. At locations where the root gap exceed 5mm and up to 8mm maximum the contractor utilized steel backing (12mm x 38mm), please reference RFI# ABF-RFI-003417R02. Weld joints 156 north shaft, 157 south shaft and 157 west shafts remain in process.

- The weld joint fit-up and alignment was check with a straight edge and bridge cam gauge.
- Preheat was performed by rosebud torch and verified with temperature stick (200°F).
- Welding was performed by approved welders (Rick Clayborn, Kit Li and Mike Jimenez.)
- The weld procedure and joint details FWT19 & FWT21 are for a partial joint penetration (PJP) weld.
- FCAW electrode used is NR-232, .072" diameter.
- Weld passes were de-slagged by grinder and wire wheel.

Summary of Conversations:

WELDING INSPECTION REPORT

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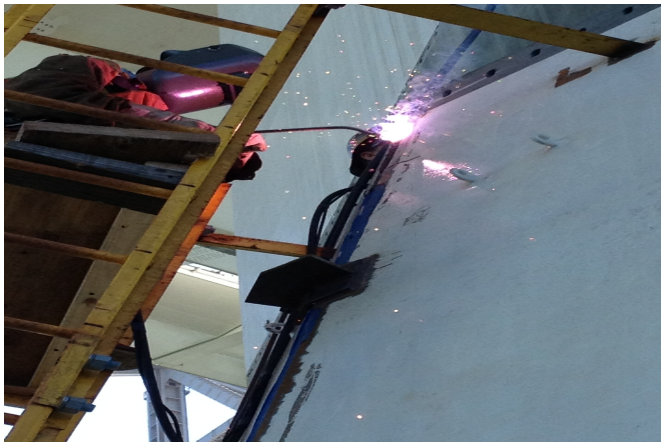
Conversation related non-continuous backing bars used only at locations where the root gap is greater than 5mm and up a maxiumum of 8mm.

QC verified fit-up and pre-heat.

Welding top 500mm of PJP splice weld on tower skirt.



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 Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

Inspected By:	Ramirez,Simion	Quality Assurance Inspector
Reviewed By:	Riley,Ken	QA Reviewer