

**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-027028**Date Inspected:** 19-Dec-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1630**Contractor:** Watson Bowman Acme**Location:** 95 Pineview, Amherst NY**CWI Name:** Reno Davis**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:** Seismic Expansion Joint Hinge A**Summary of Items Observed:**

This (QAI) arrived at Watson Bowman Acme, Amherst NY, as requested to monitor progress on fabrication of the Channel Assemblies SEI112667CA2.

This (QAI) arrived at Watson Bowman Acme, Amherst NY, as requested to monitor progress on fabrication of the Channel Assemblies SEI112667CA2. While there this (QAI) witnessed the heat flattening of the back plate on Channel Assembly SEI112667CA2-6. The top of the back plate, as viewed in drawing B-24952 sheet 5 of 12 Rev 12, had distorted from welding the Complete Joint Penetration (CJP) Weld. The plate was found to be 9.5 mm (3/8") out of flatness which was greater than the allowable 6mm by design. WBA Welder John Ash was witnessed by this (QAI) fastening the assembly to a flat surface, heating the back of the plate at the location of the distortion with a rosebud to a heat of 480 deg C ( 900 deg F). Once temperature was achieved the top of the plate was clamped and drawn down flat. Assembly was then left to cool. Once the assembly cooled it was unclamped and stood up for Inspection by Reno Davis, KTA Tator CWI on project. Plate was found to be within 6 mm (1/4") on ends but a section approx 150 mm (6") from end and extending 600 mm (24") was discovered to be 8mm (5/16"). This was brought to John Miller's attention, QC WBA, for a resolution.

This QAI while at WBA observed Joe Kearns performing Flux Core Arc Welding (FCAW) on component SEI112667-CA2-17; using Hobart (Tri-Mark) TM-811N1 electrode under WPS's FCAW-11 (Multi-pass Fillet weld). The welder was observed using a rose bud torch to pre-heat the areas to 115 degrees Celsius. The weld joints being welded by Joe Kearns at the end plate were the external end plate joining the top, bottom and back plate using a 8mm fillet weld filling a beveled edge of the end plate. During the observation it is noted that Mr. Davis was observed checking the welding parameters for compliance to the Welding Procedure Specification (WPS).

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Also observed by this QAI was Jason Gray, WBA Welder, welding the stiffener plates to the back plate of channel assembly SEI1122667CA2-18. Welding was being performed using the Flux Core Arc Welding procedure FCAW-11. The Parameters of the approved WPS were witnessed being monitored by KTA TATOR CWI Reno Davis. A 10mm fillet weld was being applied to both sides and bottom of plates. The items observed appeared to be progressing in general conformance with the contract documents.

### **Summary of Conversations:**

Basic conversation, fundamental to completion of the tasks at hand, occurred between this QAI and WBA Personell.

### **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.

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| <b>Inspected By:</b> | Sullivan, Kevin | Quality Assurance Inspector |
| <b>Reviewed By:</b>  | Foerder, Mike   | QA Reviewer                 |

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