

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 70.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-006400**Date Inspected:** 22-Apr-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1130**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** Japan Steel Works**Location:** Muroran, Japan**CWI Name:** Chung Fu Kuan**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, Jacking and Deviation Saddles**Summary of Items Observed:**

On this date, 4/22/09, Caltrans OSM Quality Assurance Inspector (QAI) Mike Brcic was present during the times noted above for observations relative to the work being performed on cast sections and their associated built up plate sections in either the Fabrication shop #4 or Foundry Shop at Japan Steel Works.

**West Deviation Saddles:**

W2E1 - Located in #2 Machine Shop, lifting lugs being removed by machining/milling process.

W2E2 - Final Machining of assembled section taking place in Machine Shop #2.

W2E3 - Sections are joined together with root passes in Fabrication #4. Welder T.Watanabe 08-5169 and M. Yamashita 73-4195 are Shielded metal arc welding (SMAW) joint ES-2U, stem to baseplate, in accord with procedure SJ3011-5, contract documents and special provisions.

W2W1 - Cast now in Fabrication Shop #4, beveling complete on built up portion, two men in process of grinding the excess material off at points of base plate that held temporary attachments.

W2W2 - Built up plate portion is being welded, piece mark 5-2 (stem) to baseplate, joint W2S-2L by way of Flux Core Weld process (FCAW) by two welders, M.Inoue 92-5658 and T.Inoue 08-5163 in the 1G position, procedure in use was SJ3011-1.

W2W3 - Cast is idle with blasted surface condition, final NDE of cast is scheduled for next week.

**Tower Saddles:**

T1-1 - Built up Saddle section is in the #4 Machine Shop being Final Machined.

T1-2 - Fabrication Shop #4, NDE personnel, K.Kobayashi, NDE Identification #141, was in preparing to test various welds on section utilizing visible Dry Powder (red), and contour probe. M.Sato ID #81 was preparing to

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conduct Ultrasonic testing of welds per WQCP procedure SF-UT-1, AWS D1.5 and contract documents. Testing is being conducted to preclude repairs after post weld heat treat, not due to requirement of the plan.

T1-3 - Cast section is currently in #4 Machine shop having its buttered surfaces machined. Built up section is resting in #4 Fabrication Shop idle.

### East Saddles:

E2E1 - Cast is in process of shaping by way of grinding, by two men approximately 8% complete.

E2W1 - Volumetric Ultrasonic testing being done to cast section in Foundry by H. Kohama (#86), Longitudinal testing utilizing a dual element straight beam transducer. It appears at this time that all contract documents, special provisions and Weld Quality Control Plan (WQCP) are being met.

Witnessed (accompanied by Ms Elizabeth Moore and Art Peterson) the mechanical testing (hardness and tensile) of forging specimens representative of "Rockers" intended for East Saddle. Detailed report, with assigned Caltrans lot number, will follow upon the receipt of the final report prepared by Japan Steel Works.

Unless otherwise noted, all observations reported on this date appeared to be in general compliance with applicable contract documents.

### Summary of Conversations:

No significant conversations to report on this day.

### 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, 1(510)385-5910, who represents the Office of Structural Materials for your project.

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| <b>Inspected By:</b> | Brcic,Michael | Quality Assurance Inspector |
| <b>Reviewed By:</b>  | Lanz,Joe      | QA Reviewer                 |

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