

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-005819**Date Inspected:** 23-Mar-2009**Project Name:** SAS Superstructure**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Contractor:** Japan Steel Works**OSM Arrival Time:** 730**OSM Departure Time:** 1730**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 Caltrans OSM Quality Assurance (QA) Inspector Mr. Art Peterson was present during the times noted above for observations relative to the work being performed in Fabrication shop #4 at Japan Steel Works.

Welding Operation of Rib Plate to Base Plate: Tower Saddle Segment T1-1

The QA Inspector observed the partial-joint penetration groove welding operation on the 2nd side of the structural steel stem plate to structural steel base plate on tower saddle segment T1-1. The QA Inspector observed Quality Control (QC) Inspector Mr. Chung Fu Kuan verify prior to the start of welding that the preheat temperature of 110 degrees Celsius was maintained and the welding parameters of JSW welding personnel Mr. M. Kashiwada (08-2008) on weld joint no. 7S-2L were in compliance with WPS SJ-3012-3 per the FCAW process in the (2G) horizontal position. The QA Inspector observed that the welding was in process at the end of the QA Inspectors' shift.

Machining of Steel Segment: West Deviation Saddle Segment W2-E2

The QA Inspector observed that west deviation saddle segment W2-E2 was located in Machine Shop #2 to have the final machining performed. The JSW machinist is preparing to mill to proper dimensions the inside of the trough section. The QA Inspector observed that the preparation in performing the milling operation was in process at the end of the QA Inspectors' shift.

NDT of Machined Surfaces: West Deviation Saddle Segment W2-E1 (After PWHT and Final Machining)

The QA Inspector observed that NIS NDT Inspector Mr. Atsui Seino completed the magnetic particle testing (MPT) inspection (dry method) on the final machined areas of the (steel) base plate and on the (steel portion) of

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the mating surfaces that connect west deviation saddle segment W2-E2 and the west jacking saddle. The QA Inspector observed that there are areas marked up on the (steel portion) of both mating surfaces from the MPT inspection. The QA Inspector observed that no work was performed on the this date.

Fit-up of Steel Section: West Deviation Saddle Segment W2-E3 (After PWHT)

The QA Inspector observed that the milling operation was completed on the prepared groove (root face) on the rib plates and stem plate of west deviation saddle segment W2-E3 (steel section) and was re-located back to fabrication shop #4. The rib plates and stem plate of W2-E3 (steel section) are required to have a mill to bear tolerance fit to the ribs and stem of W2-E3 (cast section). The fit-up operation of the W2-E3 (steel section) to W2-E3 (cast section) will be the next operation for JSW to perform. The QA Inspector observed that no work was performed on this date.

Repair of Steel Section: West Deviation Saddle Segment W2-W1 (After PWHT)

The QA Inspector observed that JSW personnel have not started on the grinding operation and welding operation (if necessary) of MPT indications marked up by NIS NDT Inspector Mr. R. Kumagai on the partial-joint penetration groove welds of the rib plate to stem plate and of the rib plate to base plate of west deviation saddle (steel section) W2-W1.

Welding of Temporary Lifting Lugs to Cast Section: Tower Saddle Segment T1-2

The QA Inspector observed that JSW personnel were in preparation to start welding the (2) temporary lifting lugs on the edge (cross section of the rib plate- 125 mm thick cast portion) of the upper side of Tower Saddle (cast section) T1-2 in the (3G) vertical position per the FCAW process. The buttering operation (multiple surface weld layers) on the cross section of the (cast section) and the fit-up operation of the temporary lifting lugs were previously completed and performed by an approved WPS and by welders qualified and submitted into JSW's weld quality control plan (WQCP). The QC Inspector Mr. Chung Fu Kuan was present and informed the QA Inspector that the WPS that will be used by JSW was not previously submitted in the approved WQCP. Mr Kuan also informed the QA Inspector that the welders who will perform the FCAW welding process were not submitted in the approved WQCP. The names of the welders are as follows: H. Mitsumori (81-5438), M. Inoue (92-5683), and Y. Mariyama (94-5234). The QA Inspector observed that the preheating operation of the cast section was in process at the end of the QA Inspectors' shift.

Fit-up of Steel Section: West Deviation Saddle Segment W2-W2

The QA Inspector observed that (3) rib plates on each side of the stem plate were fit-up and tack-welded to the base plate on west deviation saddle (steel section) W2-W2. The QA Inspector observed that no work was performed on this date.

Fit-up of Steel Section to Cast Section: Tower Saddle Segment T1-3

The QA Inspector observed that tower saddle (steel section) T1-3 is ready to be fit to tower saddle (cast section) T1-3. The JSW welding personnel are performing the buttering operation (multiple surface weld layers) on the (2) stems on the square edge (cross section) for the full length and width on the stems (cast section). The fit-up of tower saddle (steel section) T1-3 to tower saddle (cast section) T1-3 will be performed at a later date. The QA Inspector Mr. Mike Brcic is monitoring the butter pass welding on the (2) stems (cast section) on this date.

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

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Summary of Conversations:

No significant conversations were reported 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
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Reviewed By:	Lanz, Joe	QA Reviewer
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