

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-008053**Date Inspected:** 30-Jul-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Japan Steel Works**Location:** Muroran, Japan

CWI Name: Chung Fu Kuan
Inspected CWI report: Yes No N/A
Electrode to specification: Yes No N/A
Qualified Welders: Yes No N/A
Approved Drawings: Yes No N/A

CWI Present: Yes No
Rod Oven in Use: Yes No N/A
Weld Procedures Followed: Yes No N/A
Verified Joint Fit-up: 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 and the Foundry at Japan Steel Works.

Fabrication Shop #4:

Fit-up Operation of Stiffener Plates in process on Saddle: Tower Saddle Segment T1-3

The QA Inspector observed the fit-up operation of lower stiffener plate no's. 9ST-28, 9ST-29, and 9ST-30 between the saddle's built-up rib plate no's. (9-5 to 9-8), (9-8 to 9-11), and (9-11 to 9-12-3) and to built-up stem plate no. 9-3 of tower saddle T1-2. The QA Inspector observed that the fit-up operation of the stiffener plates were in process at the end of the QA Inspectors' shift.

NDT Operation in process on Saddle: West Deviation Saddle Segment W2-W2

The QA Inspector observed Nikko Inspection Services (NIS) Quality Control (QC) NDT Inspector Mr. R. Kumagai (#132) performing the magnetic particle test (MPT) inspection (dry method) of the partial-joint penetration (PJP) groove welds prior to the final post weld heat treatment (PWHT) stress relief operation on the rib plate to stem plate; stem plate to base plate; and the rib plate to base plate of west deviation saddle segment W2-W2. The QA Inspector observed that the MPT inspection was in process at the end of the QA Inspectors' shift.

Grinding Operation in process on Saddle: West Deviation Saddle Segment W2-W3

The QA Inspector observed the JSW personnel were performing the grinding operation around the radius of the cope holes- (weld access) after the partial-joint penetration (PJP) groove weld operation was completed on the (1st

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side) of the rib plate to base plate and stem (cast-section) to stem plate (built-up-section) of west deviation saddle segment W2-W3. The QA Inspector also observed that the JSW personnel were performing the grinding operation on the cover passes of the PJP groove welds to a visual acceptable profile prior to Quality Control (QC) Inspector Mr. Chung Fu Kuan performing a visual inspection for acceptance in accordance with the approved shop drawings and AWS D1.5-2002 Section 3.6. The QA Inspector observed that the grinding operation was in process at the end of the QA Inspectors' shift.

Foundry:

Blast Cleaning Operation pending on Saddle: East Saddle E2-E1 (cast saddle)

The QA Inspector observed that east saddle E2-E1 is waiting to be blast cleaned after the grinding operation is completed on the major excavation and minor excavation repair welds. The east saddle had the post weld heat treatment (PWHT) stress relief operation performed and completed on the repair welds and afterwards the JSW personnel will perform the grinding operation to grind the weld to an acceptable profile in accordance with ASTM A802 surface quality category (J) - (metal removal marks- welds) to meet quality level (3). The JSW Representative Mr. Hideaki Kon informed the QA Inspector that the blast cleaning operation will be performed after the grinding operation has been completed.

Re-positioning Operation pending on Saddle: East Saddle E2-W1 (cast saddle)

The QA Inspector observed that Nikko Inspection Services (NIS) QC NDT personnel completed the magnetic particle test (MPT) inspection on the as finished surface of the base plate of east saddle E2-W1 after the final post weld heat treatment operation. The next operation to be performed is the ultrasonic test (UT) inspection on the repair locations once the saddle is re-positioned and secured for safe access. On this date, the QA Inspector observed that no other work was performed on east saddle E2-W1.

NDT Operation in process on Saddle: West Jacking Saddle (cast saddle)

The QA Inspector observed Nikko Inspection Services (NIS) Quality Control (QC) Non-Destructive Testing (NDT) Personnel Mr. H. Kohama (#86) performing the ultrasonic test (UT) inspection on the rib section and trough section on the exterior of the west jacking saddle. The UT inspection was performed in accordance with ASTM A609M to the acceptance quality levels outlined in Table 2 of ASTM A609M. The UT acceptance quality level (1) is for within (30) mm of the exterior and interior surface for the full length of the trough as shown on the plans and UT acceptance quality level (3) for areas outside of (30) mm of the exterior and interior surface for the full length of the trough and also the rib sections as shown on the plans. The areas inspected were marked with (300 x 300) mm grid lines on the exterior of the trough and rib sections for record purposes, identification, and guidance in scanning. The QA Inspector observed that the UT inspection was in process at the end of the QA Inspectors' shift.

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

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

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your project.

Inspected By:	Peterson, Art	Quality Assurance Inspector
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Reviewed By:	Guest, Kittric	QA Reviewer
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