

**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 #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012375**Date Inspected:** 03-Mar-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Bill Norris/Steve McConnell**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:** Orthotropic Box Girders (OBG)**Summary of Items Observed:**

Quality Assurance (QA) Inspector Michael Foerder was on site between the times noted above at the Pier 7 job site as part of the arrival inspection team to perform a general arrival inspection and review of Crossbeam sections designated Number 1 (CB1), Number 2 (CB2) and Number 3 (CB3). In addition QA inspector Michael Foerder performed periodic reviews of the in process work being performed by Quality Control (QC) and ABF personnel. The following is a list of the items observed; see individual item numbers in the body of this report for further details.

1. CB1 Exterior Sea Fastening Support Locations.
2. CB2 Exterior Sea Fastening Support Locations.
3. CB3 Exterior Sea Fastening Support Locations.
4. Lift 2 West Erection Preparation
5. Project Files and Shop Drawings

The QA inspector arrived at the pier at 0800 and met with ABF personnel, Caltrans Structure personnel, the Structure Material Representative (SMR) and the QC inspection team for a brief general safety and orientation meeting prior to entering and accessing the OBG Crossbeams. The following areas and observations were reviewed and noted by QA personnel with QC personnel Steve McConnell and Bill Norris:

**Crossbeam 1**

The QA inspector was provided access by ABF personnel to the top and bottom of crossbeam number 1 in which previous access was not available. The QA inspector performed the arrival inspection review for the outside of the

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crossbeam with no apparent transportation issues apparent. This completes the arrival inspection review for this crossbeam and a digital photo is included in the body of this report for general reference.

## Crossbeam 2

The QA inspector was provided access to the top of the crossbeam via a man lift propelled by ABF craft personnel and also performed the arrival inspection review for the outside of the crossbeam. Two items were noted by the QA inspector:

1. Standing water was observed inside the crossbeam
2. A pad eye attached near the bottom of the crossbeam near Panel Point (PP) 22 had apparently been bent during shipping/handling.

Digital photos are included in the body of this report for clarification. This information was relayed to the SMR and the Structure Construction personnel present. This completes the review of this component on this date.

## Crossbeam 3

The QA inspector was provided access to the top of the crossbeam via a man lift propelled by ABF craft personnel and also performed the arrival inspection review for the outside of the crossbeam. No significant items were observed and the review was completed on this date.

## Lift 2 West Erection Preparation

The QA inspector periodically observed a crew of ABF personnel performing grinding/cleaning/buffing the coating from the bevel edges and hold back areas for the transverse weld splice at approximately PP13. In addition to this a crew of personnel are in the process of placing the components for scaffolding, welding, lighting, walkways, temporary bolts and other miscellaneous items in preparation of mobilizing lift 2 West to the erection site. This work continued throughout the balance of the shift, was not completed and appeared to be progressing in general conformance with the contract documents.

## Project Files and Shop Drawings

The QA inspector spent a portion of the shift updating the contract files and tracking logs for QA reports, welder qualification records, welding procedure specifications, procedure qualification records and submittals on this date. In addition, the QA inspector performed shop drawing reviews and posting of comments for assigned submittals on this date.

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## Summary of Conversations:

The QA inspector spoke with QA lead inspector Bill Levell in regards to Structure Materials Representative (SMR) Pat Lowry relaying the review of the material test report (MTR) for the insert plate for lift 2W was lacking information. The insert plate is for the full height vertical shear plate at line W3 in lift 2W detailed in Submittal 1503 R0. The contractor was requesting the use a proposed plate which does not meet the contract requirements according to the MTR for the following two reasons:

1. No supplemental charpy impacts were performed.
2. The material did not reflect the use of fine grain practice.

After the discussion of this item it was relayed the WQCM Jim Bowers would either provide a different plate for the insert which meets contract requirements, or a TL-38 inspection request would be submitted to METS for additional witnessing of these tests at a nearby testing facility identified by the contractor.

## 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 Mohammad Fatemi (916)813-3677, who represents the Office of Structural Materials for your project.

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**Inspected By:** Foerder, Mike

Quality Assurance Inspector

**Reviewed By:** Levell, Bill

QA Reviewer