

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 #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000003**Date Inspected:** 08-Nov-2006**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhou Dong Mei**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:** N/A**Summary of Items Observed:**

Office of Structural Materials Quality Assurance Inspector (QA), David McClary observed quality control functions related to procedure qualification testing at the ZPMC facility in Shanghai, Republic of China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

Item	Description	WBS	Dwg No.	Status
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The QA Inspector traveled with ZPMC's Quality Control Department personnel Ms. Zhou Dong Mei, Ms. Xie Ping and Mr. Hu Gang to the Shan Xun Machine Co. to observe the machining of Procedure Qualification (PQR) test samples. The purpose of the observations was to verify that Shan Xun Machine Co., along with ZPMC's QC personnel properly prepared and maintained traceability of the test samples for a trial PQR test plate. This was to fulfill the agreement between Caltrans, ABF and ZPMC for allowing Shan Xun Machine Co. to perform the machining of PQR samples without undergoing a Caltrans audit. At the beginning of the day, the plate layout was different than the drawing in ZPMC's procedure. The QA Inspector explained that Caltrans did not have any issues with the layout they chose, but it is necessary to layout the samples either how the procedure indicates or by changing the drawing in the procedure to match the layout. ZPMC appeared to understand and cutting and machining of the samples proceeded. ZPMC laid out the cut lines for the test samples and stamped serial numbers on each of the individual pieces to track the samples. ZPMC's test sample identification is as follows:

BBW XX-XX

(BBW=Bay Bridge) (Number corresponds to PQR)-(Specimen #)

Reduce Section Tension Specimen (2): BBW XX-1 and BBW XX-2

All Weld Metal Tension Specimen (1): BBW XX-3

WELDING INSPECTION REPORT

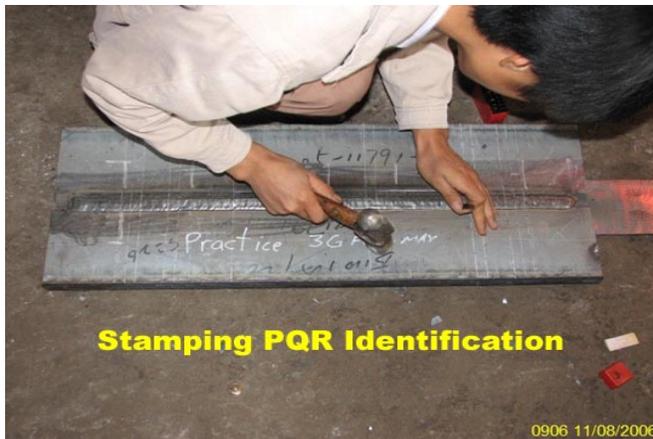
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Charpy-V Notch Specimen (5): BBW XX-4, BBW XX-5, BBW XX-6, BBW XX-7 and BBW XX-8

Sid Bend Specimen (4): BBW XX-9, BBW XX-10, BBW XX-11 and BBW XX-12

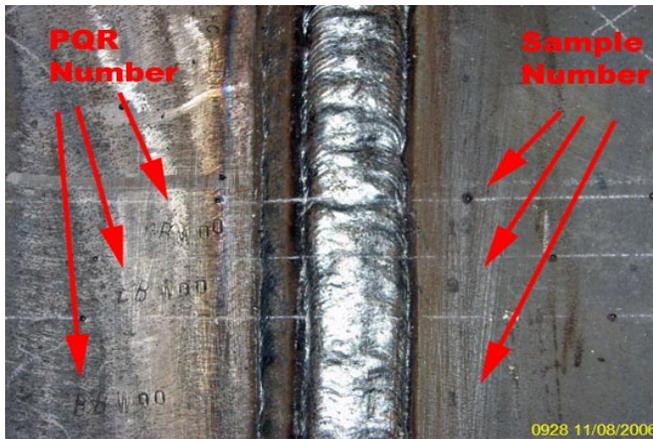
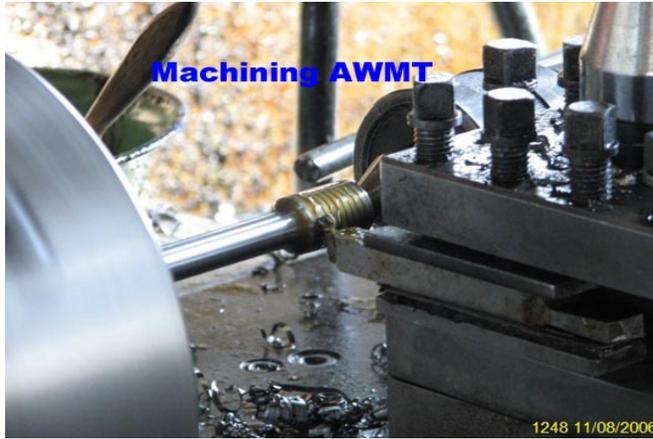
Macro-etch Specimen (3): BBW XX-13, BBW XX-14 and BBW XX-15

All of the samples were for this test were identified as ?BBW 00-xx? samples, the ?00? signifying that it is a test and not an actual PQR plate. Each time an operation was encountered that would remove the stamp identification (i.e. cutting smaller or machine / grind the stamped area) the number was stamped in a different area of the same sample that would be retained, prior to beginning the operation. Below are representative photo's of the machining and finished product:



WELDING INSPECTION REPORT

(Continued Page 3 of 3)



Summary of Conversations:

The QA Inspector spoke with ABF Representative Craig Knops regarding the layout of the test plate. Mr. Knops then spoke with ZPMC's Testing Center Director Mr. Lui Lui and resolved the issue.

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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: McClary, David

Quality Assurance Inspector

Reviewed By: Lowry, Patrick

QA Reviewer