

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.21**WELDING WITNESS REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WWR-000429**Date Inspected:** 06-Sep-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**Witness:** **Procedure Qualification Record**  
**Welding** **NDT****Welder Qualification**  
**Mechanical Testing, describe:** Tensile, Impact, Side Bends & Macro**Index Lot #:** B22-025-07**Witness Lot #:** B75-076-07**Bridge No:** 34-0006**Component:** Bid item 52,55 Tower & Girder**Welder:** Zhuhai Ping**ID #:** N/A**Joint Description:** B-U2a

N/A

**WPS ID #:** PWPS-B-T-3213

N/A

**Base Metal:** A709 Gr HPS485WT2/Z

N/A

**PQR ID #:** HP20077149-1

N/A

**Thickness:** 90mm

N/A

**Process:** SMAW

N/A

**Electrode Spec/Class:** AWS-A5.1/E-7018-1

N/A

**Positions:** 3G

N/A

**Backing Material:** A709 Gr HPS485W

N/A

**CWI:** Ye Young Jun and Huang Wei

N/A

**Average Amps:** 166.8 amps

N/A

**AWS Code:** AWS D1.5 (2002)

N/A

**Average Volts:** 22.9 volts

N/A

**Applicable Sec:** AWS 5.13

N/A

**Travel Speed:** 80.6 mm/min

N/A

**Heat Input:** 2.83 kJ/in

N/A

**Preheat:** 172 degrees C

N/A

**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe mechanical testing being performed on a Procedure Qualification Record (PQR). The tests observed being performed were tensile tests, impact tests, side bends and macro tests. The QA Inspector observed ZPMC CWI Huang Wei and ZPMC lab technician Xie Ping, examining each test specimen. Side bend test piece mark # 12, was rejected by Mr. Wei for a linear indication that exceeded contract requirements. All other tests were accepted by ZPMC CWI Huang Wei and ZPMC lab technician Xie Ping. Mr. Wei informed the QA Inspector that ZPMC would be preparing 2 more side bend specimens for a retest. The QA Inspector informed Mr. Wei that in accordance with AWS D1.5-2002 Section 5.20.1, a total of 4 side bends from 2 separate locations would be required. ABF QA Inspector Dan McDonald agreed with the QA Inspector after the QA Inspector pointed out the requirement for material greater than 38 millimeters (1-1/2 inches) thick. Mr. Wei took considerable time to understand what was meant by Section 5.20.1 of D1.5-2002. Mr. Wei finally agreed after much discussion and soapstone drawings, that 4 new side bends would indeed be required.

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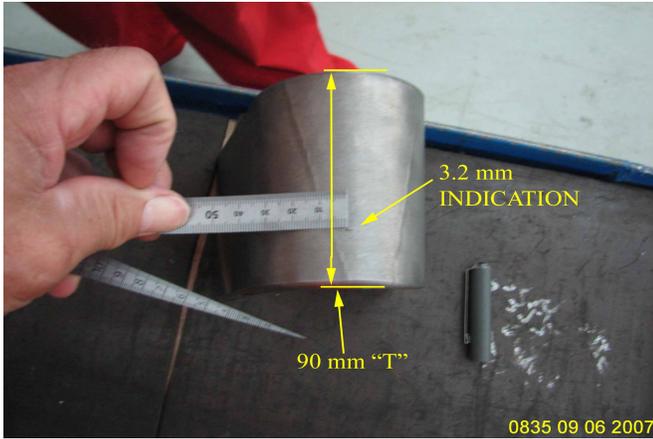
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# WELDING WITNESS REPORT

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### Summary of Conversations:

As stated in the "Summary" section of this report.

### Observed welding, testing or results:

is in general conformance with the contract requirements.

is not in conformance with the contract requirements.

### 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.

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**Inspected By:** Franco, Charlie

Quality Assurance Inspector

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**Reviewed By:** Cochran, Jim

QA Reviewer