

**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 #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000775**Date Inspected:** 02-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	NA	<b>CWI Present:</b>	Yes	No
<b>Inspected CWI report:</b>	Yes No N/A	<b>Rod Oven in Use:</b>	Yes No N/A	
<b>Electrode to specification:</b>	Yes No N/A	<b>Weld Procedures Followed:</b>	Yes No N/A	
<b>Qualified Welders:</b>	Yes No N/A	<b>Verified Joint Fit-up:</b>	Yes No N/A	
<b>Approved Drawings:</b>	Yes No N/A	<b>Approved WPS:</b>	Yes No N/A	
		<b>Delayed / Cancelled:</b>	Yes No N/A	
<b>Bridge No:</b>	34-0006	<b>Component:</b>	OBG U-Rib Trial Assembly	

**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mike Hasler was present to observe the fitup, welding and related activities associated with the fabricating of Caltrans Mock-up, 77M, 89M, 114M and U-Rib Trial Assembly, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

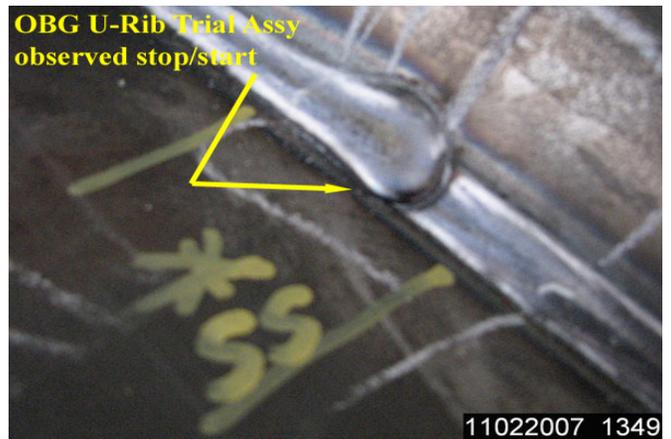
Item	Description	WBS	Dwg No.	Status
1	OBG U-Rib Trial Assy	NA	NA	VT weld inspection

Orthotropic Bridge Girder (OBG) U-Rib Trial Assembly Welding, Shop #1: At 0800 hours, ZPMC QC Inspector, Mr. Fu Yu hong notified Caltrans QA that ZPMC has completed their inspection of the assembly in Shop #1 and has accepted the welding of the assembly for conformance per project specifications. Mr. Fu Yu hong stated that American Bridge/Fluor (ABF) is inspecting the assembly now, but it would be available for Caltrans visual examination at 0930 hours. At 0915 hours, Caltrans QA Inspectors arrived at Building #1 to perform the inspection. Caltrans QA observed that ABF inspector, Mr. Art Peterson was still in the process of inspecting the assembly. After Mr. Peterson completed his inspection, Caltrans QA asked Mr. Peterson his opinion, about what he thought, in regards to the quality of the welds. Mr. Peterson stated that he had marked up the typical weld defects, such as undercut, stops and starts, non-fusion, but has left something, to see if Caltrans could find it. Caltrans QA proceeded to perform visual inspection of the welds at u-rib #73 (weld 1 & 2), u-rib #01 (weld 3 & 4) and u-rib #5 (weld 5). Caltrans QA Inspectors observed weld defects, as had Mr. Peterson had stated. However, Caltrans observed overlap that had not been marked up by Mr. Peterson. Caltrans QA was documenting defect location and length for future reference. When Mr. Peterson had arrived back at Building #1 and inquired about Caltrans inspection of the welds. Caltrans informed him of Caltrans findings and, informed him of the overlap that was not marked up by him. Mr. Peterson stated that, this is what he was referring to earlier when he stated he had left something, to see if Caltrans

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would find it. After hearing about Caltrans inspection results, Mr. Peterson left the building and then returned, about an hour later with Mr. Peter Ferguson ABF representative. Mr. Peterson stated, along with Mr. Ferguson, that they are of the opinion that the overlap, maybe weld convexity. Caltrans QA Inspector informed Mr. Peterson and Mr. Ferguson that the findings by Caltrans would be reported as overlap, but that this is a sufficient enough finding that it needs to be reported, and that Caltrans selected macro-etch may be randomly taken from these locations. The following digital pictures illustrate overlap, undercut and non-fusion.



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**Summary of Conversations:**

As identified within the contents of this report.

**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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<b>Inspected By:</b>	Hasler, Mike	Quality Assurance Inspector
<b>Reviewed By:</b>	Cuellar, Robert	QA Reviewer

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