

**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-008864**Date Inspected:** 31-Aug-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	Li Jia			<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 Segments		

**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

OBG Trial Assembly Yard

Segment 1AW

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SSD34-PP8.5-003. The welder is identified as #048801 and was observed welding in the 2G (horizontal) position using approved Welding Procedure Specification WPS-B-T-2232-TC-U5-F.

Segment 5BW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as EP038-001-013. The welder is identified as #062092 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

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This QA Inspector observed back gouging of the root CJP root pass on the longitudinal diaphragm flange to floor beam web at panel point 34 on the cross beam side.

### Segment 5BE/5CE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBE5A-010. The welder is identified as #220067 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233T.

### Segment 5BW/5CW

This QA Inspector observed grinding in progress on the CJP web splice weld profile of the bottom plate T-stiffeners.

This QA Inspector observed arc gouging of the backing bar at the deck plate transverse CJP splice.

### Segment 1AAW

This QA Inspector observed match drilling of bolt holes on side plate for the traveler rail brackets on the counter weight side.

### Segment 1AAW/1AW

This QA Inspector observed ZPMC performing Magnetic Particle Testing (MT) at the location fit up plates were attached and removed along the side plate transverse splice on the counter weight side.

### Segment 5AW

This QA Inspector observed the cope holes at panel point 29 on the FL2-2 to FL1 floor beams at the bottom plate do not have a smooth transition on the cross beam side and counter weight side.

### Segment 3AW

This QA Inspector observed blasting was in progress on the exterior portion of the FL3.

### Segment 2AW

This QA Inspector observed ZPMC personnel performing MT on the welds of counter weight side suspender bracket.

ZPMC Quality Control (QC) Inspector is identified as Wang Li Yang, Chen Bo and Feng Ya Jun. QA Inspector observed QC Inspector verify welding parameters. The welding variables recorded by QC appeared to comply with the Applicable WPS.

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Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

**Summary of Conversations:**

No relevant conversations.

**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 Eric Tsang, 150-0042-2372 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Hernandez,Dan	Quality Assurance Inspector
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<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer
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