

**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 #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029200**Date Inspected:** 02-Mar-2013**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

<b>CWI Name:</b>	Fred Michels and Bernie Docena			<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Bridge No:</b>	34-0006			<b>Component:</b>	SAS OBG		

**Summary of Items Observed:**

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At Hinge 'A' expansion joint of OBG to skyway, QA randomly observed ABF welder Mathew Cochran perform flat stud welding on 3/4" diameter x 8 3/16" long stud to the top and side of the expansion joint deck implementing procedure ABF-WPS-D1.5-5063. Two studs (2) were welded and utilized to perform a pre-production test and bent to 30 degrees. After welding, ABF QC Bernie Docena inspected the diameter of the welds for 360 degree flash all around and noted the 360 degree flash. This QA also performed visual verification on the flash of the stud welds and noted same results. The welder then bent tested the test studs to 30 degree using a 10 pounds sledge hammer and noted acceptable results. The welder started the production stud welding at the conclusion of the test. During the shift, the same welder performed horizontal test stud welding two 3/4" diameter x 8 3/16" long stud and then performed the preproduction test. The test result was noted as acceptable. The same welder performed horizontal stud welding on the side of the expansion deck implementing procedure ABF-WPS-D1.5-5062. At the end of the shift, more than 90 studs were welded at flat position and more than 40 studs were welded at horizontal.

At 12E grid line E1 panel point PP112, PP114, this QA Inspector randomly observed ABF welding personnel Mike Jimenez perform 2F (horizontal) position fillet welding the cable suspender bracket bottom shim. The welder was noted using Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R implementing procedure ABF-WPS-D1.5-F1200A. During welding, ABF QC Bonifacio Daquinag was on site to monitor the workmanship and welding parameters. Prior welding, the welder has preheated the suspender bracket to more than 150°F using

# WELDING INSPECTION REPORT

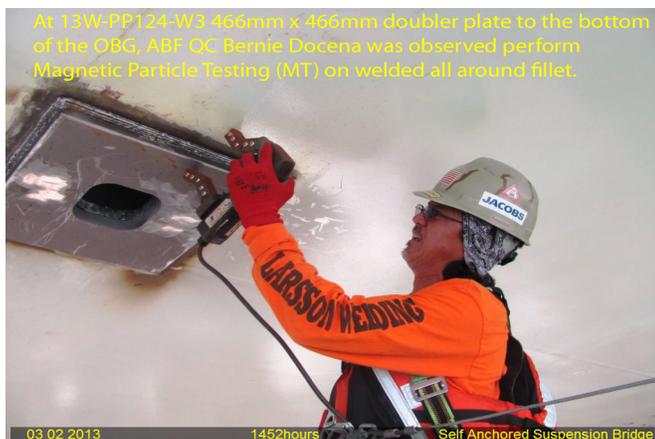
( Continued Page 2 of 3 )

propylene gas torch. At the end of the shift, fillet welding was still continuing and should remain Monday.

At Dehumidification Platform located at the W2 Bent Cap, between the east and west bound OBG, QA randomly observed ABF/JV qualified welder Richard Garcia perform fillet welding between the 6" x 6" diagonal angle strut to 125mm x 12.5mm square plate per detail 1 and 3 of drawing OBG E3050. The welder was observed using 1/8" diameter E7018H4R electrode. The Dehumidification Platform is being assembled and installed per the Request for Information (RFI) #001249R02 and the ZPMC drawing OBG E3050. During welding, ABF QC Fred Michels was noted monitoring the welding parameters of the welder with measured working current of 140 amperes on a 1/8" diameter E7018 electrode.

At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT/MT on fillet weld of one 466mm x 466mm doubler plate marked X3878R to the bottom of the OBG at 13W-PP124-W3 and removal of temporary welded lifting lug attachments at tower cable shroud east and west. The QA verification was performed to verify that the welding and the VT/MT inspection performed by the QC inspector meet the requirements of the contract documents. At the conclusion of the QA verification it appeared that the welds and the QC inspection complied with the contract documents.

1. 466mm x 466mm doubler plate to bottom of OBG @ 13W-PP124-W3 - weld joint QA verified.
2. Tower west side cable shroud – 4 lifting lug removal QA verified
3. Tower east side cable shroud – 4 lifting lug removal QA verified



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# WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

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**Summary of Conversations:**

No significant conversation occurred today.

**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 SMR Gary Thomas 916-764-6027, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Lizardo, Joselito	Quality Assurance Inspector
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<b>Reviewed By:</b>	Reyes, Danny	QA Reviewer
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