

**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 #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013839**Date Inspected:** 30-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

<b>CWI Name:</b>	William Sherwood and Bonifacio Quijano			<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>	Orthotropic Box Girder		

**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 OBG L3E/L4E top deck plate 'A' and edge plate 'B' outside, QA randomly observed ABF/JV qualified welder Jordan Hazelaar ID #2135 perform CJP groove welding repair. The welder was observed welding in the 3G (vertical) and 1G (flat) positions utilizing Shielded metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1000-Repairs. The weld repairs were excavated to a boat shape having a dimension of 110mm long X 20mm wide X 25mm deep for plate 'A' and 55mm long X 25mm wide X 20mm deep for plate 'B'. The complete removal of the linear indications on the excavations was confirmed thru Magnetic Particle Testing (MT). Prior welding, the excavations were again tested using Magnetic Particle Testing at preheated temperature of greater than 150 degree Fahrenheit and also confirmed removal of linear indications. ABF QC Bonifacio Daquinag was noted monitoring the welder. During the shift, the welder has completed the two welding repairs and was visually accepted by ABF QC.

Before welding started on the above mentioned repair, ABF QC Bonifacio Daquinag had informed this QA that the repair was verbally approved by Caltrans that was relayed thru William Norris. QA also verified the information from Lead QA who also confirmed that it was really verbally approved.

At top deck of OBG L4E, QA observed randomly observed ABF/JV qualified welder Rick Clayborn perform CJP groove welding on the splice butt joint of backing bar for OBG L5E/L6E top deck plate 'A' splice butt joint. The

# WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

welder was observed welding in the 1G (flat) position utilizing Shielded metal Arc Welding (SMAW) with 1/8” diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1040C. The weld joint has a single V prep with backing bar and run off tab on both sides. After welding one side, the backing bar is turned upside down and the backing bar removed and ground/cleaned and tested with Magnetic Particle Testing (MT) and back welded. ABF QC Barry Blake was noted monitoring the welder and his welding parameters. During the shift, the welder has completed four splice butt joints into this backing bar mentioned above. ABF QC performed Visual Test (VT) and MT after the welding completion and was also Ultrasonic Tested (UT) by ABF QC Steve Mc Connell afterwards.

At OBG L2E/L3E side plate ‘E’ outside, QA randomly observed ABF/JV qualified welder Mitch Sittinger perform CJP groove welding repair. The welder was observed welding in the 4G (overhead) position utilizing Shielded metal Arc Welding (SMAW) with 1/8” diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1000-Repairs. The weld repairs were excavated to a boat shape with one repair having a dimension of 100mm long X 19mm wide X 10mm deep. The repair excavations were preheated to more than 140 degree Fahrenheit using propane gas torch prior welding. During the shift, ABF QC William Sherwood was noted monitoring the welder. Prior welding, ABF QC William Sherwood was also observed performing Magnetic Particle Testing (MT) on the repair excavations. During the shift, the welder has completed three welding repairs outside and was noted moving inside the box to perform more repairs inside.



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# WELDING INSPECTION REPORT

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**Summary of Conversations:**

As stated above.

**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 Mohammad Fatemi (916) 227-5298, who represents the Office of Structural Materials for your project.

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

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