

**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 #: 74.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013001**Date Inspected:** 05-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Goodwin Steel, UK**Location:** Stoke-on-Trent, UK

<b>CWI Name:</b>	N/A	<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>	Cable Band	

**Summary of Items Observed:**

The following report is based on METS observations at Goodwin Steel Castings, Stoke-on-Trent on this date:

The QA inspector received and completed a review of the the following weld maps:

GG29417-1, B1/F-(R6) this seventh repair cycle is a minor repair. Lot number 105 was assigned.

GG29421-2, B3/F(R2) this third repair cycle is a minor repair. Lot number 106 was assigned.

GG29420-10, B3/M(R2 CA) this third repair cycle is a major repair. Lot number 107 was assigned.

GG29424-3, B5/M(R2) this third repair cycle is a minor repair. Lot number 108 was assigned.

GG29421-7, B3/F(R4) this fifth repair cycle is a minor repair. Lot number 109 was assigned.

GG29437-6, B9/F(CA) this first repair cycle is a major repair. Lot number 110 was assigned. This Administrative correction is submitted to allow the use of WPS04-0120F4G to allow the use the Flux Core Arc Welding Process (FCAW) for this repair.

The QA Inspector was informed that casting GG29441-2, Drawing Number 5540-B10-2-F is ready for dispatch to Goodwin International. The QA Inspector performed a random visual verification of the casting. It was noted that an area on the casting appeared to deviate from the requirements of the contract special provisions Section 10-1.60 Steel Castings requirement "All unmachined dimension tolerances of castings shall be +4 mm and -2 mm, unless noted otherwise on the plans." This was pointed out to Adrian Murphy, Goodwin Steel Castings Quality Representative. Mr. Murphy indicates that this will be resolved.

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# WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

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The QA Inspector reviewed the final documentation package for casting GG29417-5, Drawing 5540-B1-1-F. This package was returned for correction. Two Magnetic Particle Inspection Reports do not identify the specific area tested.

The QA Inspector observed weld repairs in progress on Casting GG29433-6. Drawing Number 5540-B8-1-F. Mr. R. Dessoulavy, was observed welding excavations 58 and 61 on the Weld Excavation Map. Mr. Dessoulavy was using WPS04-0120F4B Issue 5 which was available at the work station. The casting was preheated to 160 degrees C, and verified with a temp stick. Five (5) mm E7018-1 was being used and the rod quiver in use was warm to the touch. The welder was using 200 amps and 25 volts which is within the limits of the Welding Procedure Specification (WPS).

**Summary of Conversations:**

see above for 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 Nina Choy, (510) 385-5910, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Riegler,Randy	Quality Assurance Inspector
<b>Reviewed By:</b>	Edmondson,Fred	QA Reviewer

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