

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4  
Cty: SF/ALA Rte: 80 PM: 13.2/13.9  
File #: 69.15

**SOURCE INSPECTION REPORT**

**Resident Engineer:** Pursell, Gary  
**Address:** 333 Burma Road  
**City:** Oakland, CA 94607

**Report No:** SIR-002300  
**Date Inspected:** 12-Dec-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:** Changxing Dao, Shanghai

<b>Quality Control Contact:</b>	William (Bill) Oak	<b>Quality Control Present:</b>	Yes	No
<b>Material transfer:</b>	Yes No N/A	<b>Sampled Items:</b>	Yes No N/A	
<b>Stock Transfer:</b>	Yes No N/A	<b>OK to Cut:</b>	Yes No N/A	
<b>Rebar Test Witness:</b>	Yes No N/A	<b>Delayed/Cancelled:</b>	Yes No N/A	

**Other:** Coating Inspection

**Bridge No:** 34-0006

**Bid Item:** 77, 78, 79

**Component:** OBG 7BW, Office, Lift 3East, Lift 3 West, Lift 3

**Lot No:** B265

**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) NACE III coating inspector, Mr. James Lumley arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island in Shanghai, China. The purpose of the coating inspections are to monitor the surface preparation and coating applications for the SAS Bay Bridge project. This QA NACE III coating inspector observed the following:

Office

Attend to report writing and sort and organize project files and documentation.

OBG 7BW

Internal Floor area "T" Stiffeners on Bottom and Side plates from Panel Point 50 to end Weld Seam Base Metal was abrasive blasted for a pre-blast final VT inspection. Grinding operations were performed to remove gouges, sharp edges, burrs and fins and after four(4) subsequent blast inspections SSPC SP-10 condition was achieved and Interzinc 22 undercoat applied.

Lift 3 East

Internal surfaces from Panel Point #19 to end Weld Seam were touched up of minor mars and damages to previously applied undercoat with Interzinc 52. After 2 Inspections were performed the area was found to be in general compliance with the contract documents.

Lift 3 West

A "Final" Inspection was requested for the entire internal undercoated surfaces of the upper portions of "U" Rib Stiffeners and Upper Chevron, FL 2-1 and Diaphragms. Undercoated surfaces were found to be in general compliance with the contract documents and also the Lower surfaces were inspected and found to require additional touch up and repairs to previously applied undercoat.

Lift 4 East

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# SOURCE INSPECTION REPORT

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Base Metal surfaces of the external Bottom Transverse Weld Seam joining 4BE/4BE were cleaned in accordance with the agreed upon method and then SSPC SP-1 performed prior to application of Interzinc 52 undercoat.

## Lift 1 West

External base Metal surfaces of the Upper Corner Unit and the Transverse Weld Seam joining 1 AW/1AAW were repaired in accordance with the agreed upon method and then SSPC SP-1 was performed and Interzinc 52 applied to the NDT damaged area. Also the Bottom Plate areas for the Wind Vortex Plate Faying surface was abrasive blasted to remove previously applied Finish Coat and re-establish SSPC SP-10 base metal condition and Interzinc 22 applied.

## Lift 2 West

Internal repairs from Panel Point 13-14 were performed via abrasive blasting to remove "Rust Stain" on previously applied Undercoat and re-application of Interzinc 22 undercoat was performed to amend repairs. Also minor damages of the Cable Tray assemblies and Catwalk Channel Iron were touched up with Interzinc 52 to amend chipped existing coating damages and associated repairs.

## Lift 3 East

External Bottom Plate Base Metal surfaces of NDT damages of the Weld Seam were repaired in accordance with the agreed upon method and subsequently SSPC SP-1 performed and Interzinc 52 applied. This process took four (4) inspections until general compliance and coating applied.

## OBG 7BW

Internal Base Metal surfaces were pre-blasted for VT inspection and verification. Caltrans QA Larry Viars went to perform VT inspection and map areas accordingly however ZPMC was not ready at the time requested, rust and corrosion was evident and surfaces were incomplete to perform proper VT inspection.

## Lift 3 West

ZPMC requested a "Final" inspection of the internal floor areas of the Bottom Plate and Side Plate undercoated surfaces as well as the lower Diaphragms and Chevron Connection Assemblies numerous defects were discovered and the areas were found in non-compliant condition. ZPMC to perform additional repairs then resubmit request for "Final" inspection.

Note: All inspections were performed jointly with ABF & ZPMC QA/QC representatives and Caltrans QA Lumley when achievable. International Protective Coatings technical service representative were available for inspections and consultation.

### **Summary of Conversations:**

Caltrans QA Lumley inquired with ABF QA Bill Oak as to why it requires so many inspections to obtain proper condition to allow coatings to be applied.

### **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 (858) 699-9549, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Lumley,James	Quality Assurance Inspector
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<b>Reviewed By:</b>	Peterson,Art	QA Reviewer
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