

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.15**SOURCE INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** SIR-002401**Date Inspected:** 11-Mar-2010**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**Quality Control Contact:** Don Walton**Quality Control Present:** Yes No**Material transfer:** Yes No N/A**Sampled Items:** Yes No N/A**Stock Transfer:** Yes No N/A**OK to Cut:** Yes No N/A**Rebar Test Witness:** Yes No N/A**Delayed/Cancelled:** Yes No N/A**Other:** Coating Inspection**Bridge No:** 34-0006**Component:** Sub-Assemblies, Cross Beam #4, Lift 5 East,**Bid Item:** 77, 78, 79**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:

**Cross Beam #4**

ZPMC requested a "Final" finish coat inspection with Caltrans Engineer. Inspection was delayed as Engineer unavailable at time requested, CT QA Lumley performed visual on External repaired areas and one side appeared to be in general compliance and the other vertical surface repaired area was not uniform and runs and sags which were previously sanded off were still visible in the dried film.

**Sub-Assemblies**

ZPMC requested a pre- submersion inspection of materials to be galvanized to verify compliance with AWS D.1.1.

A single Platform Ladder and numerous small Traveler Rail components were the materials inspected by ABF personnel.

**Lift 5 East**

Internal damaged areas (NDT) and previously undercoated areas of "rust stain" in the Upper Corner Unit areas from Panel Points 31-36 were abrasive blasted to base metal and an SSPC SP-10 condition and Interzinc 22 undercoat re-applied. Profile amplitude was 69-84µm.

**Sub-Assemblies**

Base metal surfaces of approximately 148- X38 Splice Plates and 1-Suspender Bracket (SB38) were abrasive blasted and rejected due to non-compliant works and grinding operations which required amendment. ABF directed ZPMC to resubmit inspection notification upon completion of repairs.

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# SOURCE INSPECTION REPORT

( Continued Page 2 of 2 )

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## Lift 5 East

Visual inspection performed on external Finish coating applied to Side and Bottom plates with ABF QA Manager Don Walton, Caltrans SMR Skyler Guest, and Caltrans QA Lumley. Random Dry Film Thickness (DFT) readings were taken and top coated surfaces were non-compliant with minimum DFT specified, as well as damaged areas and shadow through/ grinning.

## Lift 5 West

Visual inspection performed on external Finish coating applied to Side and Bottom plates with ABF QA Manager Don Walton, Caltrans SMR Skyler Guest, and Caltrans QA Lumley. Random Dry Film Thickness (DFT) readings were taken and top coated surfaces were non-compliant with minimum DFT specified, as well as damaged areas and shadow through/ grinning.

## Lift 6 East

External damaged areas of the "F" East side edge plate to deck plate areas were abrasive blasted to base metal and an SSPC SP-10 condition and Interzinc 22 undercoat applied, prior to application edges were feather typically.

## Lift 6 West

Internal and external weld seam repair areas were abrasive blasted to base metal and an SSPC SP-10 condition and Interzinc 22 undercoat applied. Weld seam located at 6BW/CW and Internal weld repair areas located from Panel Points 37-44.

## Sub-Assemblies

Base metal surfaces of approximately 310 pieces of X38D Splice Plates were washed and de-greased in accordance with SSPC SP-1 in preparation of abrasive blasting.

## Sub-Assemblies

Previously non-compliant items consisting of 148-X38 Splice plates 1 suspender bracket SB38E and an additional 3 Counterweights CW38, CW40,CW42 were abrasive blasted to base metal and an SSPC SP-10 condition and Interzinc 22 undercoat applied. The counterweights had been previously abrasive blasted and coated with the specified system including finish coat.

## Sub-Assemblies

Base metal surfaces of 28 pieces of channel iron code: M4-3 were washed and de-greased in accordance with SSPC SP-1 in preparation of abrasive blasting operations.

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:

No relevant conversations on this date.

## 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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