

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-002434**Date Inspected:** 27-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:** Office, Cross Beams #4, 5, 6, Lift 6 East, Lift**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:

Lift 6 East

Internal and external coated surfaces were visually inspected and ongoing cleaning operations and repairs observed on internal surfaces to remove dirt and spent abrasives from undercoated surfaces, also application of caulking to internal crevice areas as directed by ABF personnel, workmanship issues. The external affixed Suspender Bracket SB42E and affixed Traveler Rail Brackets are being repaired on localized damaged areas with Interzinc 52 prior to topcoat application. Internal surfaces exhibited dirt coated over, loose materials left inside the lift such as bolts and nuts and studs, rusted steel components as well as drill shavings on undercoated surfaces, localized areas of excessive Dry Film Thickness (DFT) also observed.

Lift 5 East

ZPMC personnel applying caulking to gaps and crevices on internal surfaces as directed by ABF personnel, workmanship is not tidy, also undercoated surfaces exhibited localized areas of excessive DFT in over-blast/overlap of repaired areas, Interzinc 52 being applied to minor localized damaged areas of edges of FL-1 beams as well as angle iron and cable tray assemblies, cleaning operations incomplete at this time dirt and spent abrasives visible.

Cross Beams # 5&6

Internal Bottom Plate areas were visually inspected with ABF and ZPMC QA/QC personnel and minor touch up with Interzinc 52 performed on edges and localized damaged areas which the previously applied Interzinc 22

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undercoating was damaged from the installation of splice plates for storage during transport.

Lift 5 West

Internal undercoated surfaces of the Cross Beam Termination and FL-3 beams were visually inspected and found to be in general compliance with the contract documents. The handrail affixed to the catwalk was found to be spliced together and caulking applied to the splice connection, Caltrans QA Lumley inquired as to whether this area required welding and informed CWI of the issue.

Lift 6 East

ZPMC requested a "Final" inspection of the internal undercoated surfaces of the Cross Beam Termination/FL-3 Beams and Bottom Plate assembly. Undercoated surfaces exhibited additional cleaning was required as the areas in the upper portions were filled with trapped spent abrasives, also the catwalk angle iron which affixes the catwalk support channel iron were not coated with the specified undercoat and ZPMC personnel removed and replaced these with Interzinc 22 undercoated angle iron. ZPMC to resubmit another notification after completion of cleaning and localized minor touch up were completed.

Cross Beam #4

Internal surfaces were visually inspected for damages incurred from the installation and storage of splice plates for transport. ZPMC and ABF QA/QC personnel were verbally informed of the damages incurred and ZPMC personnel began amendment of the damaged areas by applying Interzinc 52 to the localized areas for repairs.

OBG 8AW & 8AE

Internal undercoated surfaces were tested for adhesion in accordance with the special provisions. Approximately 50% of the adhesion tests performed within each segment failed to meet or surpass the minimum value of 4Mpa for adhesion of the applied undercoated surfaces. ZPMC to re-affix additional dollies in adjacent areas and re-test.

Lift 6 East

Damaged areas of Finish coated surfaces adjacent to Suspender Bracket SB42E on the east Side Plate and also the affixed Traveler Rail Brackets on the East Side Plate were top-coated with Interfine 979 Finish coating. Areas adjacent to the Suspender Bracket were masked off to prevent over-spray damages on the existing Finish coated surfaces and the Traveler Rail Brackets were all painted using paint brushes thus eliminating over-spray.

Lift 6 West

ZPMC requested a "Final" inspection on the internal undercoated surfaces from Panel Points # 47-42, dirt and spent abrasives were observed on undercoated surfaces and ZPMC was in process of cleaning throughout the inspection process. Concurrent with the cleaning and inspection ZPMC were performing additional touch-up to localized areas during the inspection. Also of note the external surfaces and the recently affixed Suspender Brackets on the West Side of the lift required repairs and are currently only "mist" coated with Interfine 979, ZPMC personnel are still installing and tensioning the bolts for these assemblies.

Office

Updated outstanding work with ABF QA personnel inside ABF satellite office at end of shift.

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 informed ABF QA/QC personnel and ZPMC QC personnel the internal surfaces of Lifts 5 & 6 East and West still required additional cleaning of dirt, debris, spent abrasives and materials.

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

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remedial efforts please contact Eric Tsang (858) 699-9549, who represents the Office of Structural Materials for your project.

Inspected By:	Lumley,James	Quality Assurance Inspector
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Reviewed By:	Peterson,Art	QA Reviewer
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