

INSPECTION REPORT

December 11/95

High Level Bridge Rehabilitation Project

General Coating Summary Report August 17 - December 5/95

Equipment

The sandblasting, environmental-containment, and painting equipment on the project is best described as "State of the Art". The writer was confident throughout the project that the equipment was clean and well maintained by the Park Derochie staff. There were no deficiencies in the quality of work due to equipment malfunction. Breathing air quality and visibility was excellent as is demonstrated by the quality of work delivered by the sandblasting and clean-up crews. Monthly blood test results indicate that environmental-containment equipment provided excellent protection for the workers.

Painting equipment included conventional spray as well as airless spray equipment supplied by the coating manufacture. The airless spray equipment at times did require additional maintenance but given the size of the project and the volumes of material applied, the problems were minimal. The simplicity of this airless pump system provided positive benefits and should be considered again for similar projects.

Skill

At times there were as many as 72 men on the sandblast - coating crew. The skill level ranged according to the tasks at hand. It is the writers opinion that skills were well placed relative to the tasks. This is a critical component on a project of this size and a credit to the Park Derochie leadership team. Paul Calfat and Dennis Vaudrin knew their men's strengths and weaknesses and placed it accordingly. Their leadership and guidance throughout the project is reflected in the good quality of the finished project.

Safety

The Park Derochie records will reflect a positive safety record on this project.

INSPECTION REPORT

Page 2

Quality

Over the next several decades the sandblasting and coating work performed by Park Derochie on this project will speak for itself. The surface preparation exceeded specification with over 80% of the project meeting SSPC SP 10 standard. Problem areas included pack rust, and badly pitted areas. These areas were prepared to specification for coating and accepted by the City of Edmonton representatives.

The coating was applied by journeyman applicators to specification. Though no dry film thickness measurements could be recorded (due to the nature of the coating), wet film readings were taken abundantly and diligence was taken to ensure the coating thickness made or exceeded specification.

Touch up work was monitored during the disassembly of scaffold and coating was applied where mechanical damage occurred on a "best efforts" basis.

Ambient Conditions

The weather played havoc during the early part of the project and caused delays. Weather conditions improved during the fall and hoarding was improved. Winds ripped the tarping on occasion causing delays but no substantial negative effects were sustained to the quality of the coating. When temperatures in the fall dropped below specified minimums, Park Derochie placed heaters in the coating areas to maintain warm steel temperatures. This effectively eliminated outside ambient conditions.

Materials

There were problems with the Xymax system in regards to color and build. There seems to be inconsistencies with the material and delivery. This system of course is isolated to the east hand rail. It was mid September until the problems with the material were rectified and at the time of this writing the hand rail is accepted to specification.

INSPECTION REPORT

Page 3

Material continued...

The Bridgecote material had good consistencies though there was some question on minor quantities for heavy unscreened solids plugging filters (white beads). This problem was not isolated to one batch and the cause at the time of this writing is unknown. It is known that these problems did not exist when ambient conditions were plus 50 F. but seemed to be more prevalent with cooler temperatures.

Sandblasting media remained consistent throughout the project. The media was clean, chloride free, and anchor patterns were steady - ranging from 2.7 to 3.1 mil.

Final

The final acceptance criteria was based on the results of visual inspection. No holiday testing was performed obviously due to the nature of the truss structure. Touch up coating was applied where visual misses were detected. Runs and sags have no deleterious effect on the longevity of service of the coating.

The appearance of the coating is consistent from end to end with the exception being additional touch up work south of bent 22 (due to mechanical damage suffered by PCL and Mac).

The coating is rich in that it exceeds specified thicknesses on average. Color is consistent - flat black.

Inspection by:

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