



March 11, 2016

Five Algonquin Modular Panel Bridges support Toronto's transportation strategy

Five Algonquin Modular Panel Bridges are helping MetroLinx and the City of Toronto buy some time to work through longer-term planning for one of their busiest transportation corridors.

Pedestrian and vehicular bridges installed in Lakeshore/Gardiner corridor

Three of the replacement bridges are now installed over the MetroLinx rail corridor at the Dunn Avenue and Dowling Avenue approaches



Project at a glance:

Project Name: Grascaan Pedestrian and Vehicular Bridge Replacements

Locations: Dunn Avenue, Dowling Avenue, Parkdale

Owner: MetroLinx, City of Toronto

Engineer: Morrison Hershfield

Contractor: Grascaan Construction

Contractor: Torbidge Construction Ltd.

Product: Algonquin Modular Panel Bridges

Application: Pedestrian and Vehicular Road and Rail Crossings

Three Pedestrian Bridge Dimensions:
Lengths 30.4 m, 19.8 m, 16.8 m x Common Width 2.1 m

Twin Vehicular Bridge Dimensions: Length 21.3 m x Width 5.3 m

Installation Times: Pedestrian Bridge (factory-assembled) 1 hour to place; and Vehicular Bridges 1.5 weeks to assemble on-site, 2 hours to place

to Lakeshore Boulevard and the F.G. Gardiner Expressway and the waterfront trails. Two more will be installed over the Gardiner itself during a planned maintenance week in May 2016.

Algonquin bridges to serve as “temporary/permanent” solutions

The bridges are longer-term “temporary/permanent” solutions (10-15 years) to replace older concrete structures until planning and environmental assessments can be carried out to determine future design needs, including a possible widening of the rail corridor.

Customized design for twin vehicular bridges

It was more economical to replace the existing two-lane bridge at Dunn Avenue with twin single-lane Algonquin bridge systems — one with a pedestrian footway. Algonquin’s engineering and fabrication teams customized these units to fit the site with skewed ends and additional I-beams in place of the usual external raker braces. These bridges were delivered as components and assembled on-site in a week and a half.

Long pedestrian bridge delivered in one section

We pre-assembled the pedestrian bridge at our Algonquin facility and shipped it in a single 30.4 m section via a carrier with specialized hauling capabilities.

Tight sites call for night flights

Due to rail traffic constraints, the three installations had to happen between 2am and 4am on a weekend. Once fully preassembled, the three bridges were all set into place within that time frame. An Algonquin Technical Representative provided on-site assistance throughout the night and heard the following comment from the consulting engineer when all was said and done:

“One day we don’t have a bridge, and the next day we do. If this were a concrete bridge, this would have been a six-month project, but now we have a bridge overnight.”

— Morrison Hershfeild, Representative

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