

Project Profile



July 28, 2025

Algonquin R800 Modular Panel Bridge configuration helps save time and rental cost on MTQ Autoroute 20 project



Our made-in-Canada R800 Modular Panel Bridge System is being used for a longer-term, 18-month rental detour bridge in support of a bridge rehab project on busy Autoroute 20 at Notre-Dame-du-Bon-Conseil, QC. The span reaches 70 m over the Rivière Nicolet Sud-Ouest.

Project at a glance:

Project Name: Autoroute 20 Rental bridge

Location: Notre-Dame-du-Bon-Conseil, QC

Owner: MTO

Consultant: CIMA+

Contractor: Les Entreprises Claude Chagnon

Bridge Assembly Subcontractor:

Les Entreprises JPC

Sector: Transportation

Application: Detour Bridges, Rental Bridges,

Temporary Bridges

Product: Algonquin R800 Modular Panel Bridge

System

Dimensions: Span 70 m, Width 9.45 m (TDHR3H++++ with TL-4 parapet rails)

Installation Time: Four weeks, start to finish



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Using our new R800 system with stronger RSS members, we were able to provide a more efficient design with a triple-double reinforced-three (TDHR3H) with four bays of high shear panels (++++). With our previous Modular Panel Bridge System, this project would have required a quadruple-double configuration. As a result, the project realized savings since fewer components were needed and assembly was faster, with reduced carbon emissions. The bridge opened on schedule.

Notably, Algonquin's R800 Modular Panel Bridges are the only made-in-Canada systems like these, with components 100% Canadian-made, using renewable solar energy for reduced carbon emissions. Choosing R800 avoids the costs of international shipping, secures the supply chain and supports a stronger Canadian economy.

Collaboration on engineering 0.5% cross slope on approaches Since all components are standard, we were able to start fabrication prior to the drawings being completed and the system was delivered in staggered shipments to the laydown area at the project site.

When our contractor and customer Les Entreprises Claude Chagnon requested a 0.5% cross slope for drainage at the approaches, our inhouse Engineering team partnered with the University of Western Ontario to complete a finite element 3-D model to validate the design. Thanks to the UWO team for doing such a great job on this.

Autoroute 20 has a very high level of heavy traffic, so we added lock washers on the structure to reduce the impact of vibration.

Algonquin Bridge maintains an inventory of these popular bridge systems, ready to be shipped anywhere in Canada for permanent or temporary applications like detour bridges or emergency bridge washout replacements. All components are hot-dip-galvanized for maximum durability. They are easy to assemble with local crews and are completely reusable. Assembled bridges can be cantilever launched from one side or they can be crane-lifted into place.

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Algonquin Bridge

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