



Acrow's Steel Truss Supports Historic Bridge Rehabilitation in Québec

Modular system placed inside the covered Pont Perrault during renovation

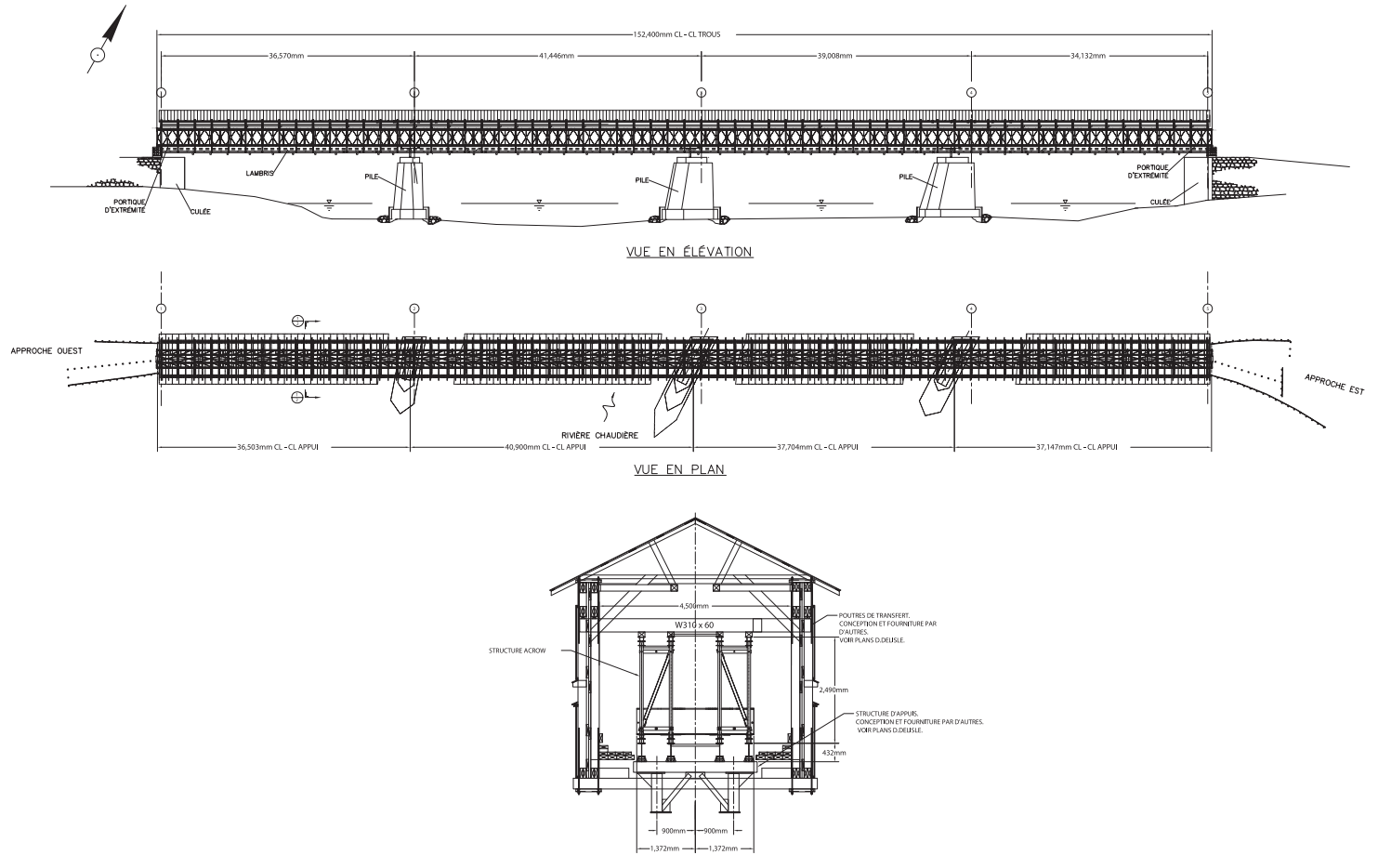
Pont Perrault was built in 1929 and spans the Chaudière River in the parish municipality of Notre-Dame-des-Pins in Québec. At 495-feet long (150.9m), it is the longest covered bridge in the province, and a major tourist draw. Although it had been many years since the bridge carried vehicular traffic, after damage to timber components was discovered in 2018, it closed to pedestrians and cyclists.

The project to rehabilitate Pont Perrault received widespread approval and included the financial backing of more than 30 partners including federal, provincial and municipal governments, as well as regional sporting clubs. After pandemic-related delays, the project began in May 2022 and completed in November 2022. The repair work has enabled the reopening of the historic structure for year-round use by pedestrians and cyclists, as well as ATV and snowmobile enthusiasts.

Owing to Acrow's participation in numerous successful

historic bridge rehabilitations, it was contracted by project contractor Cité Construction TM Inc. to design and supply a freestanding structure to fit inside Pont Perrault to support the covered bridge during the restoration. Acrow's modular steel truss system, rented to the contractor, was 500 feet (152.4m) long with an overall width of 8.86 feet (2.7m), and a timber deck for worker access. In addition, temporary scaffolding underneath the bridge was cabled to and supported by Acrow's structure, allowing exterior work on the underside of the bridge to proceed safely.

The project posed several challenges. The exposed area of the covered bridge created an enormous wind load, necessitating the fabrication of custom sway braces for the truss system. In addition, the installation required Acrow's structure to stay in cantilever for 134.5 feet (41m) and at different slopes over the spans as it was pulled into place by cables across rollers.



Specifications

Bridge length:

500' (152.4m)

Roadway width:

8.86' (2.7m)

Deck surface:

Timber deck

Standard Acrow bridge finish:

- All major components galvanized to AASHTO M111-ASTM A123
- All bolts are hot-dip galvanized
- All pins are electrogalvanized

Standard Acrow bridge specification:

- (A) Panel chords, diagonals, verticals, reinforcing chords, rakers to AASHTO M223 GD 65
- (B) Raker braces, transoms, top chord braces, swaybraces, transom braces, diagonal chord braces, decking to AASHTO M223 GD 50
- (C) Panel pins to ASTM A 193 GD B7
- (D) Bolts to AASHTO M164M - A325