# Acrow Steel Bridging Solution Provides Critical Access for Local Businesses During Building Construction in Toronto's Financial District

Prefabricated Modular Steel Bridge with Protective Roof Maintains Local Commerce

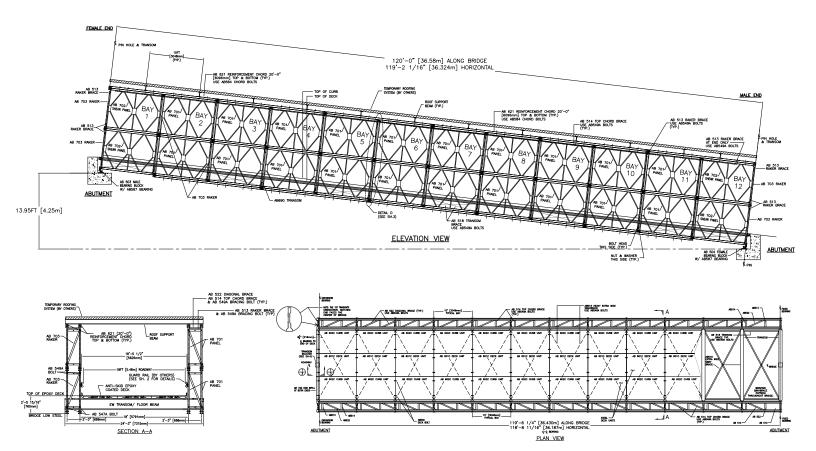


Acrow supplied PCL Constructors Canada with a prefabricated modular steel bridge that spans an excavation site at PCL's 100 Adelaide Street West Project in downtown Toronto. Serving as a temporary ramp, the 36-meter bridge was designed to provide delivery trucks and other vehicles with secure access to loading docks that serve a number of buildings, restaurants, and businesses in the vicinity. The Acrow ramp will provide access for 18 months, while a new 43-storey office building is constructed.

"Teaming up with Acrow enabled us to design and deliver the best possible solution in relatively short order," said Reynder Van der Meulen, Construction Manager, PCL Constructors Canada. "The high level of workmanship, technical know-how and dedication was evident at every stage of the project – and essential in being able to transport a roadway solution through one of the busiest sections of the city and installing it quickly and securely on a 12 percent slope." The galvanized steel ramp was supplied with roof beams to accommodate a protective roof. This inexpensive solution eliminated the need for an expensive deck heating system.

ACROV

The Adelaide Street ramp was modeled after the heavy haul bridge that Acrow developed for the World Trade Center in New York City, which was used as a ramp for construction crews at Ground Zero. Acrow's maintenance-free, easy-to-assemble steel bridges are engineered to support heavy loads and constant traffic year in and year out, making them ideal for use on heavy industrial and building construction sites.



## **Specifications**

#### Bridge length:

Acrow supplied 36.6 linear meters (120ft.) of bridge

### Bridge width:

The Acrow bridge was 5.5 meters (18ft.) clear travel way between the guide rails

#### Guide rails:

Designed by contractor

## Deck surface:

The Acrow deck was steel deck with epoxy aggregate anti-skid coating

## Bridge erection:

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The bridge was erected in sections and lifted in place by crane

### Live load:

The bridge was designed in accordance with CHBDC ULS bridge design specifications 2010 edition to:

- Class B vehicle 116kN (26,000 lbs.) GVW
- 2.4kPa (50psf.) roof loading

## Bridge design:

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- (A) Panel chords, diagonals, verticals, panel reinforcing chords, rakers to AASHTO M223 GD 450 MPa
- (B) Decking, raker brace, transom, top chord brace, swaybrace, transom brace, diagonal brace, overhead roof beams to AASHTO GD 350 MPa
- (C) Panel pins to ASTM A 193 GD b7
- (D) Bolts to AASHTO M164M-A325

#### Bridge finish:

- All major components galvanized to AASHTO M111 – ASTM A 123
- All bolts are hot dipped galvanized
- All pins are electro galvanized

## Acrow Bridge

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