

Acrow Bridge Provides Ideal Temporary Solution for Collapsed Bridge in Port Bruce, Ontario

Detour bridge will remain in place for two years



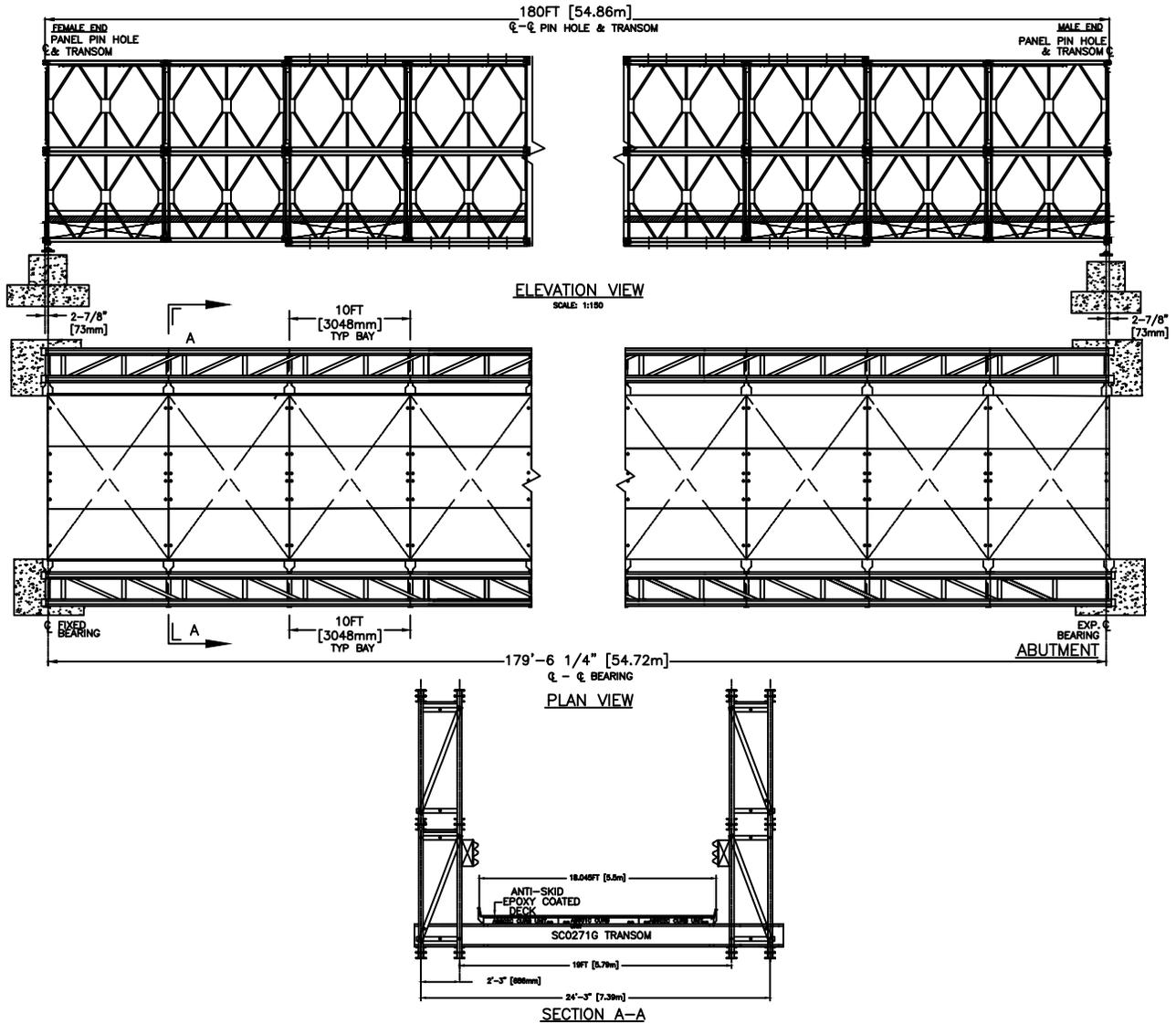
The Port Bruce Bridge is the only direct route over Catfish Creek on Imperial Road/County Road 73 in Port Bruce, Ontario. The bridge, which divides the north and south sides of the small town on the shores of Lake Erie, collapsed in February 2018 during heavy rains and flooding throughout much of the province. In addition to impacting local businesses and residents, the collapse and resulting 5 km detour led to increased response times for emergency vehicles and inconvenienced visitors to the area, which is a popular destination for anglers during the May to early October fishing season.

At the time of the collapse of the 54-year-old concrete structure, a loaded dump truck was crossing and was left stranded and partially submerged in the creek. Fortunately, there were no injuries as a result of the accident, but the truck remained where it fell for four weeks until a comprehensive plan was put in place to safely remove its cargo and fuel and proceed with a complicated extrication. Ultimately, the truck was lifted off with a giant crane, an event that attracted media and a large crowd of onlookers.

The Acrow bridge was purchased by Elgin County, which anticipates reusing it for future projects. The single-lane span is 54.8 meters (180 feet) long and 5.5 meters (18 feet) wide with an epoxy aggregate anti-skid coated steel deck and a CL-625 ONT Truck load rating per Canadian Highway Bridge Design Code. Construction on the temporary bridge began on July 3 and was completed on August 15. It opened to traffic on August 20 and is expected to be in place for two years.

Spriet Associates Ltd. of London, Ontario is the design engineer for the project and the contractor is Maclean Taylor Construction Ltd. of St. Marys, Ontario.

“Using a temporary detour bridge can help ensure the project stays on or ahead of schedule, important for both contractors and government agencies,” said Gordon Scott, Senior Project Manager and Structural Engineer at Acrow Bridge. “Acrow modular bridges, available for rent or purchase, are cost-effective and provide a safe and dependable route for local residents and area businesses.”



Specifications

Bridge length:

54.8 m (180 feet)

Bridge width:

5.48 m (18 feet)

Live load:

CL625 ONT Truck

Deck surface:

Epoxy aggregate coated steel deck

Bridge finish:

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

Bridge erection:

Crane assisted launch method.

Bridge design:

- (A) Panel chords, diagonals, verticals, panel reinforcing chords, rakers to AASHTO M223 GD 65
- (B) Raker brace, transom, top chord brace, swaybrace, transom brace, diagonal chord brace to AASHTO GD 50
- (C) Panel pins to ASTM A 193 GD b7
- (D) Bolts to AASHTO M164M – A325

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