

## Citizens of Port Hope, Ontario Select a Permanent Acrow Structure to Restore Safe Passage Across the “Ganny”

A permanent and cost-effective solution from Acrow replaces a failing temporary bridge to span the Ganaraska River in Port Hope



In 1980, a major flood on the Ganaraska River devastated the downtown of the Municipality of Port Hope in southern Ontario. In order to restore safe passage across the “Ganny” as quickly as possible, an emergency single-lane bridge was installed as a temporary solution while the search for a permanent solution began.

Over the course of many years, different types of permanent structures were considered to replace the old bridge. In the end, a two-lane Acrow bridge was chosen by the citizens of Port Hope, as they thought its appearance was most suitable for the prominent downtown site. As a bonus, the Acrow bridge was also a more cost-effective solution.

The old structure was dismantled by members of Toronto’s 32<sup>nd</sup> Combat Engineer Regiment over the weekend of May 13, 2017 as part of their ongoing readiness training. The structure was a portable, prefabricated Bailey-type bridge originally developed for military use by the British during World War II, and used extensively by British, Canadian and US military engineering units. Because there are still many Bailey-type bridges in use around the world, the opportunity to work on the project made it an ideal exercise for the Engineer Regiment.

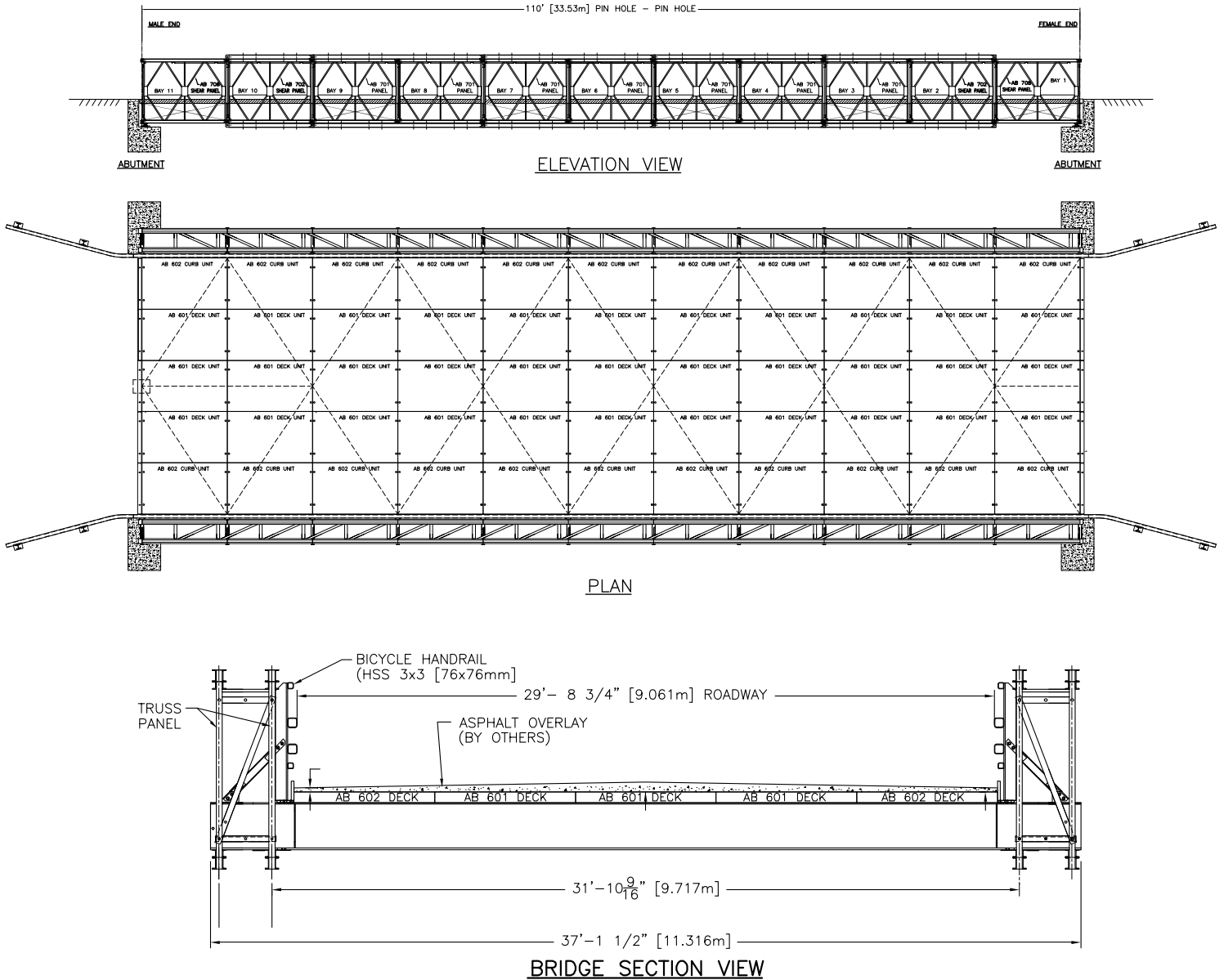
The foundations for the new structure were started immediately upon removal of the old bridge. Assembly and installation of Acrow’s prefabricated modular steel bridge, measuring 33 meters (110 feet)

long by 9 meters (30 feet) wide, began on August 18 and was completed in two months. The new, wider bridge improves traffic flow and includes a safer asphalt driving surface. Acrow also provided highway-rated guard rails for the approach roads to match the guard rails on the new bridge. The previous structure was protected only by a traditional Flex Beam guide rail system.

“Acrow’s structure was the perfect solution for this project,” said Ken Scott, President, Acrow Ltd. “Easily transported and designed and built to last 75 years, like every Acrow product, this bridge is made entirely out of high strength galvanized steel, and will be maintenance free. We are pleased that the people of Port Hope believed that our bridge is not only the most suitable in appearance, it is the most efficient and cost-effective solution.”

Added Bill Killeen, CEO of Acrow Bridge, “Our prefabricated modular steel bridges are an ideal choice for cost-effective and rapid permanent bridging needs. Our customizable components can be engineered for many different applications, and have an estimated life span of 75-100 years.”

The Acrow bridge was ordered by contractor Fidelity Construction and Engineering Inc. per the contract specifications, and the design engineer was G.D. Jewell Engineering Inc. Both firms are headquartered in Ontario.



## Specifications

### Bridge length:

33.0 meters (110 ft.)

### Bridge width:

9 meters (30 ft.)

### Live load:

CL 625 Ont. Truck as per CHBDC

### Deck Surface:

Min. 51mm (2 ins.) of asphalt at curbs sloping up to a 142 mm crown at centerline.

### 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:

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

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