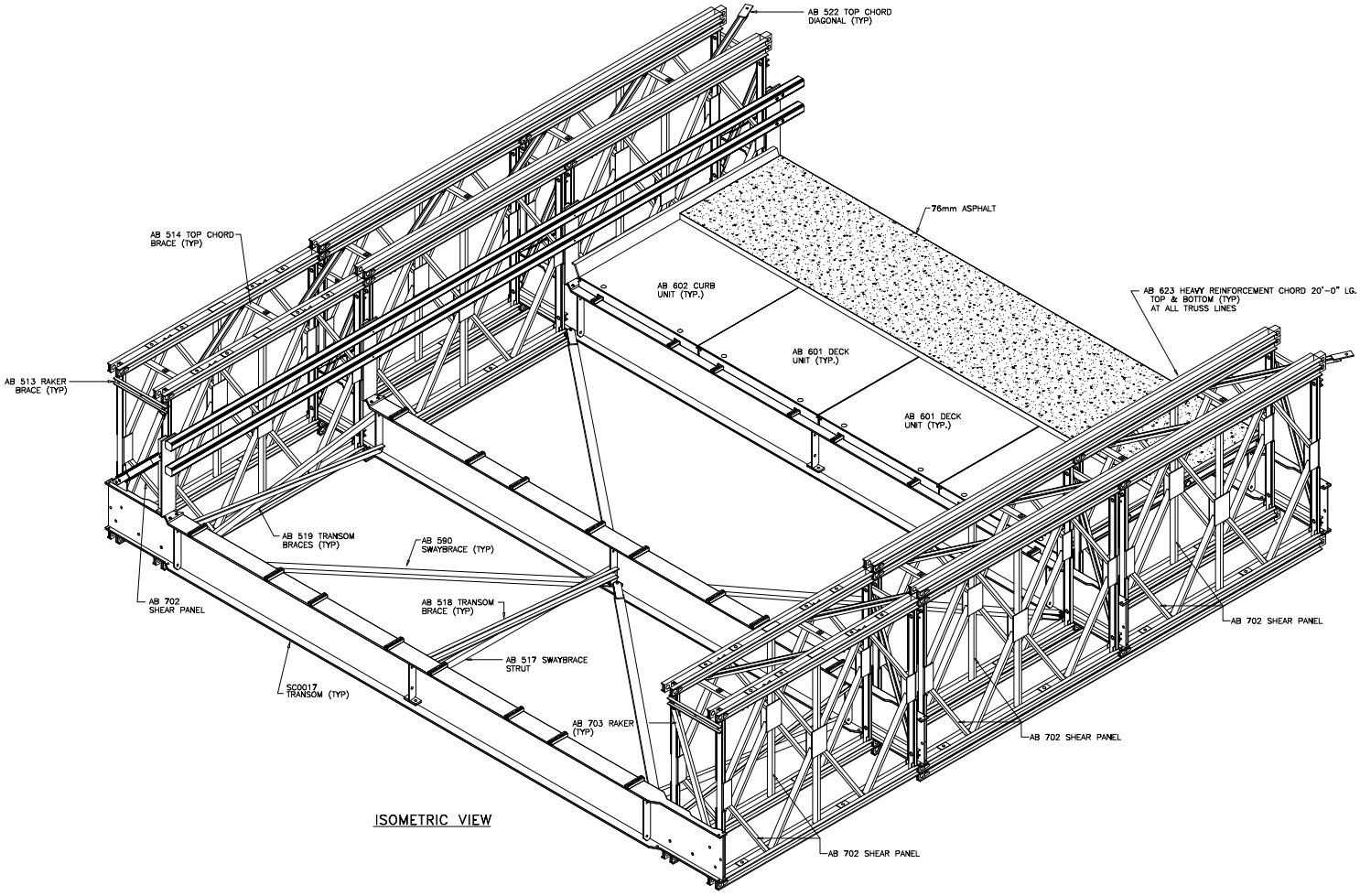
Acrow's Permanent Modular Steel Bridge Keeps French Line Bridge Replacement on Budget, and Minimizes Public Inconvenience

Acrow Bridge supplied the Township of Lanark Highlands with a permanent two lane bridge, offering a cost-effective solution for replacing the existing structure that allowed the project cost to stay within the projected budget.

The steel truss French Line Bridge over the Clyde River had come to the end of its 70 year life. Initially a concrete bridge was designed as the replacement but the contractors' bids came in over budget. Acrow offered a two lane bridge with a steel deck overlaid with asphalt, and a PL-2 rated guard rail system. The design life is 75 years. This option saved the township approximately $1,000,000.

By purchasing Acrow's modular steel bridge over a traditional concrete structure the contractor was be able to build and install the new bridge within a shorter time frame. The speed of installation was of significant value according to the Public Works Department as the detour around the site is approximately 35kms, so the quick installation eliminated the need for a detour bridge and minimized the potential liability of a long detour. The Public Works Department commented that they would consider another Acrow Bridge for future bridge replacements. Furthermore, they view the Acrow Bridge as equivalent to other types of permanent bridges.

Although Acrow Bridges are often viewed as temporary due to their fame as detour bridges either for planned projects or emergencies, the Acrow Bridge is a long term cost effective alternative to other bridge types. Proof of the long term performance of the Acrow Bridge can be found in numerous installations dating back 40 years and more. Furthermore, there are numerous examples of the Acrow's predecessor, the World War II Bailey Bridge, dating back 70 years plus. Many of the older Baileys were installed as a quick fix and then left for decades, and are still performing. Acrow Bridges have advanced significantly over the Bailey Bridge with improved steel and welding quality and hot dip galvanizing to ensure a design life of 75 years or more. With additional options such as an asphalt deck surface, fully rated guardrail systems, cambering, and drainage systems, the Acrow bridge is structurally equivalent to other bridge types yet offers significant cost savings and dramatically reduced installation times.



Specifications

Bridge length:

90 feet (27.4M) span

Bridge width:

The Acrow bridge has a 24 foot (7.3M) clear travel way between the guide rails.

Guide rails:

A PL-2 Rated Guard rail was supplied by Acrow

Deck surface:

Asphalt

Bridge erection:

Crane assisted launch

Live load:

The bridge was designed in accordance with CL625 design loading as per CHBDC code.

Bridge design:

(A) Panel chords, diagonals, verticals, panel reinforcing chords, Rakers to A ASHTO M223 GD 65

(B) Decking, raker brace, transom, top chord brace, swaybrace, transom brace, diagonal chord brace to A ASHTO GD 50

(C) Panel pins to ASTM A 193 GD b7

(D) Bolts to A ASHTO M164M – A325

Bridge finish:

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

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