



## Four Detour Bridges Maintain Traffic During I-94 Modernization Project in Michigan

Modular structures enable \$160 million initiative to improve the safety and condition of the interstate

A project to replace or repair 17 bridges on Interstate 94 and resurface 10 miles of the roadway in Calhoun County, Michigan, broke ground in late March 2023 and is part of the state's multiyear I-94 Modernization Project. Safe, reliable, temporary detour bridges were essential to minimize disruptions to heavy commuter and commercial traffic on the route. Four modular steel structures from Acrow were selected and installed at Battle Creek.

The project was bid as a joint venture and awarded to Anlaan Corporation and C.A. Hull. Acrow provided two bridges to each of the partners. The bridges rented to Anlaan measure 230 feet (70.1m) and 150 feet (45.7m) in length. The roadway width for the longer two-lane bridge is 30 feet (9.15m); the shorter bridge is 18 feet (5.5m) wide. The longer bridge was installed with a full

cantilever launch and the other, a crane-assisted launch. Opened in June 2023, it is expected they will be in place until March 2024.

The bridges rented to C.A. Hull are 190 feet (57.9m) and 150 feet (45.7m) long. Each has a roadway width of 18 feet (5.5m). The bridges were installed in the median of I-94 between the existing eastbound and westbound structures, which posed technical challenges, as did the design of earth retention to support the temporary foundations. The structures were opened in June 2023 and are expected to be in place until August 2024.

In addition to keeping work zones safer, Acrow's rugged and cost-effective detour solutions can help keep projects on or ahead of schedule, enabling Accelerated Bridge Construction for priority projects.

## Specifications

### Bridge lengths and roadway widths:

In total 4 bridges were supplied with the following dimensions:

Bridge reference	Length	Width
1 - Anlaan Corp.	230' (70.1m)	30' (9.15m)
2 - Anlaan Corp.	150' (45.7m)	18' (5.5m)
1 - C.A. Hull	190' (57.9m)	18' (5.5m)
2 - C.A. Hull	150' (45.7m)	18' (5.5m)

### Guide rails:

TL-4

### Deck surface:

Customer applied asphalt overlay

### Bridge erection method:

Full cantilever launch and crane-assisted launch

### Design load:

HL-93

### 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

