



Modular Steel Detour Bridge Reduces Impacts of Highway Construction in Southern Iowa

Acrow's safe, cost-effective rental solution maintains traffic during bridge replacement project

U.S. Route 34, also known as the 34th Infantry Division Memorial Highway, is a major east-west artery through southern Iowa. When the bridge over South Avery Creek (located between Ottumwa and Albia) was scheduled for replacement, a temporary detour bridge was needed as no alternate route was available. The solution was an Acrow 700XS® bridge, provided to Godbersen-Smith Construction Company, the project contractor.

Originally, plans specified a three-span structure with two intermediate piers, but Acrow helped reduce costs significantly by designing a single-span structure and omitting the intermediate pier requirement. The clear span solution had the added benefit of minimizing in-water disruption and eliminating environmental permitting.

Acrow's modular steel structure, with an asphalt overlay deck surface, has a two-lane width of 30 feet (9.15m). The 150-foot (45.72m) long bridge was designed to AASHTO HL-93 load specification.

Additional cost savings were realized during installation by switching to a full cantilever launch of the structure using Acrow's launching equipment. This eliminated the potential high crane costs and concerns over site constraints associated with a crane-assisted installation, which was the initial planned method.

Assembly of the detour bridge began in July 2025, and despite persistent heavy rainfall in the area over the next two months, the bridge opened to traffic in mid-July. The temporary Acrow structure remained in place until the new bridge was completed.

Acrow's reliable detour bridging solutions are available for rent or purchase and offer project owners a safer, more economical alternative to phased construction for priority projects. Quickly and easily assembled and installed, they minimize construction disruptions and can help keep projects on or ahead of schedule.



- (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