



## Acrow Provides Detour Access During Bridge Construction on Hawaiian Island of Kauai

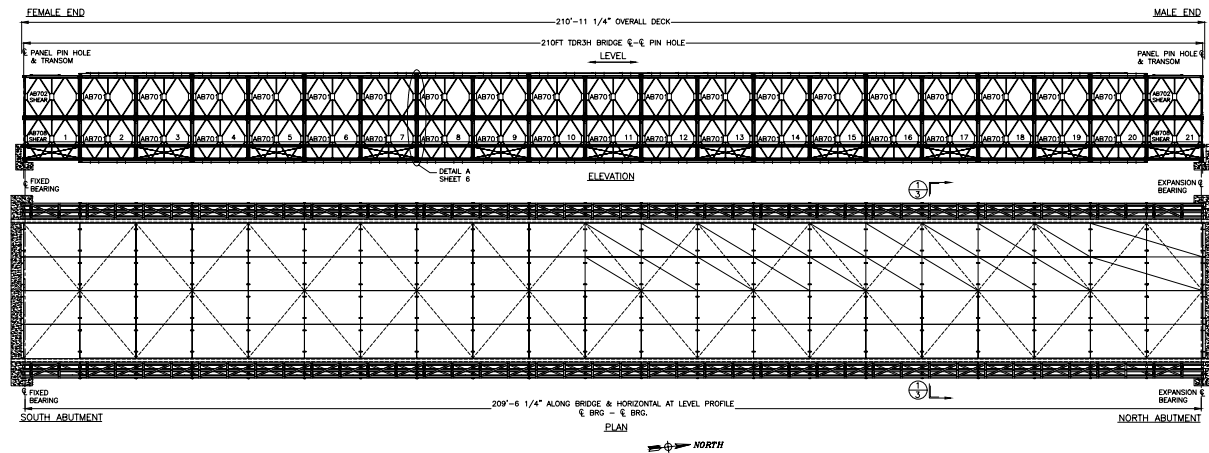
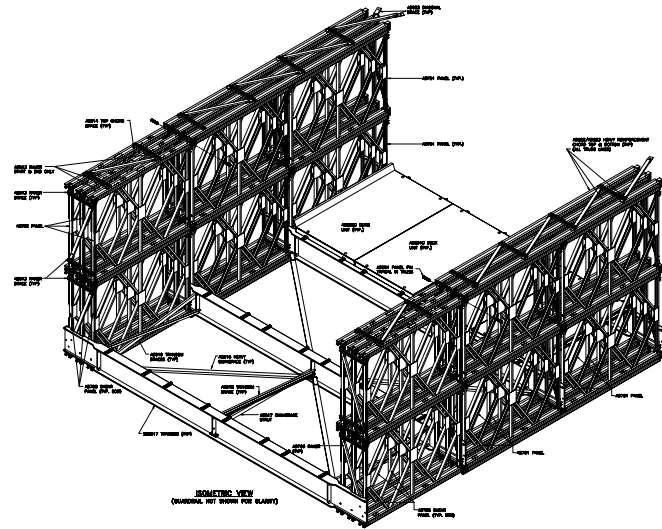
Structure was built in only eight days to divert traffic during Kapa'a Stream Bridge replacement

The Kapa'a Stream Bridge, constructed on Kuhio Highway in 1953, was listed as one of the top 50 bridges in the state highway system in need of upgrade or repair. Its replacement is one of 10 bridge projects delivered as a partnership between the Hawaii Department of Transportation (HDOT) and the Central Federal Lands Highway Division of the Federal Highway Administration. As the structure is located on a critical connecting route north and south across Kauai and therefore heavily traveled, installing a temporary detour structure to reroute traffic flow during construction was a priority.

Modular detour bridging continues to be a popular, cost-effective method to provide a safe and reliable solution to traffic disruptions during infrastructure

projects. Rapidly installed, it is a cost-effective way to help ensure the successful completion of jobs on or ahead of schedule.

The Acrow bridge designed for this project is 210 feet (64.01m) long and accommodates two lanes of traffic. Despite having an extremely tight work zone next to a busy highway that made assembly and installation complex, the build completed in just eight days in February 2020. The contractor, Hawaiian Dredging Construction, oversaw the erection of the structure and additional works to ensure the bridge opened the following month. The temporary bridge remained in place for the duration of the project and was de-launched in the summer of 2021.



## Specifications

### Bridge length:

210' (64.01m)

### Roadway width:

24' (7.35m)

### Guide rails:

TL-4

### Deck surface:

Epoxy aggregate

### Bridge erection method:

Full cantilever launch

### Design load:

Two lanes of HL-93 plus guide rail

### 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