



## Acrow Bridge Provides Permanent, Safe Passage in the Keahua Arboretum in Hawaii

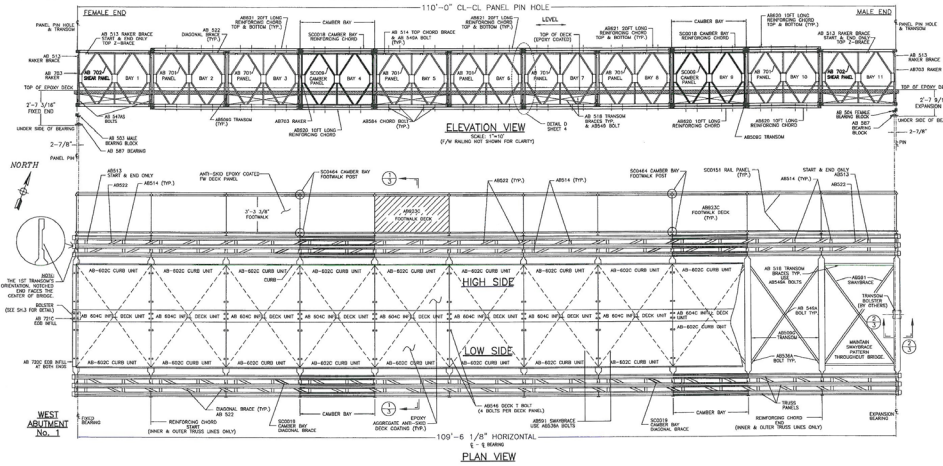
New structure replaces old roadway prone to regular flooding after heavy rains

The Keahua Arboretum in the Keahua State Forest in Kauai, Hawaii is home to native plants and vegetation and is enjoyed by locals and tourists for picnicking, swimming, hiking, biking and horseback riding.

The original route in and out, a concrete roadway, had sunk over time and flooded after heavy rains. Safe passage over the Keahua Stream was not always possible in this remote but highly traveled area. The decision was made to construct a permanent bridge at the site, along with new roadway alignment and a drainage culvert with inlet and outlet.

The decision to use an Acrow structure for the crossing made sense for the tight construction zone, as Acrow's modular components can be installed more easily than most other styles of bridges in constrained build areas.

The single-lane bridge is 110 feet long (33.53m) by 13.78 feet (4.2m) wide, with a coated deck and special 3-foot-wide (1m) sidewalk. As specified by the Hawaii Department of Land and Natural Resources (DLNR), it has a two-part paint system to cover all surfaces of the galvanized steel to enhance protection against corrosion. As with all Acrow products, the bridge will be virtually maintenance-free with a lifespan of 75 years or more.



## Specifications

**Bridge length:**

110' (33.53m)

**Roadway width:**

13.78' (4.2m) plus 3' (1m) footwalk

**Deck surface:**

Epoxy aggregate

**Bridge erection method:**

Built in place

**Design load:**

HL-93

**Bridge finish:**

- All major components galvanized to AASHTO M111-ASTM A123
- All bolts are hot-dip galvanized
- All pins are electrogalvanized
- Shop-applied two part paint system

**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