



## Acrow Bridge Selected for Permanent Crossing at Remote Mining Site in Liberia

Structure designed for extremely heavy loads and a challenging environment

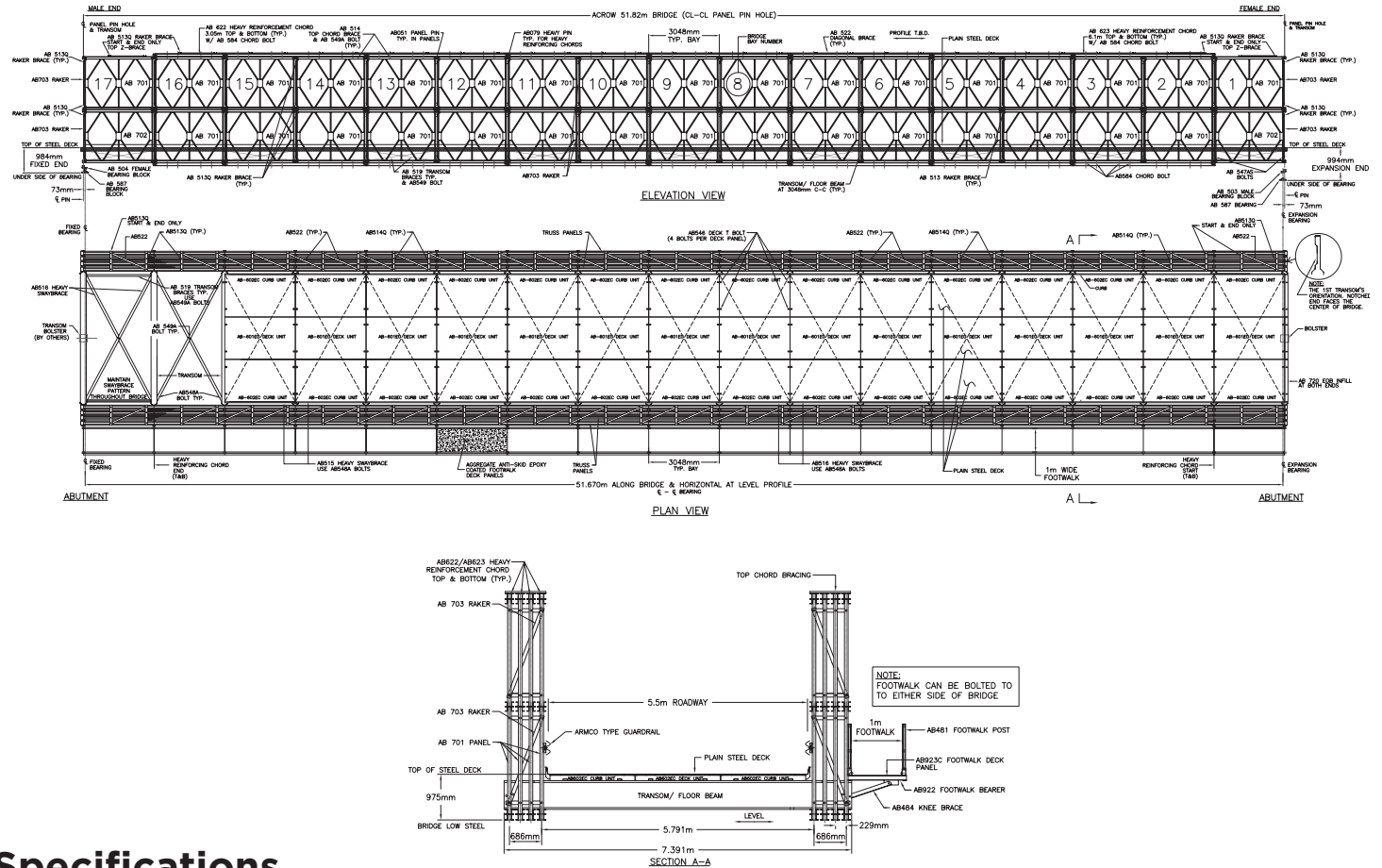
From mining to offshore oil exploration, the extractive industries have long been an important part of the economy of Liberia, a country rich in natural resources. When a permanent bridge was needed at an iron ore mine far inland, it was an Acrow structure that was chosen to provide access for both vehicles and pedestrians.

The bridge supplied by Acrow was 51.82 meters (170') long by 5.5 meters (18') wide curb-to-curb, with an epoxy aggregate orthotropic deck. The one-lane structure was designed to support extreme heavy-haul loads.

Acrow bridges are well suited to meet the specialized needs of the mining industry; the modular design of

Acrow's steel bridging system makes installation easy and cost effective, and ideal for remote locations such as this, where installation of other bridging solutions would be difficult or impossible. Fully hot-dip zinc galvanized and engineered to exceed a 75-year service life even in the most challenging environments, the bridge was completed using local labor in three weeks, despite heavy daily rain.

Whether used for permanent or temporary installations, all Acrow bridges are supported by an on-site technician, providing expert instruction on site preparation, assembly and launch, through to final commissioning of the bridge, in order to ensure a safe, successful installation.



## Specifications

### Bridge length:

51.82m (170')

### Roadway width:

5.5m (18')

### Deck surface:

Epoxy aggregate (Note: The deck system for the panel bridge is comprised of special 'Eurocode' orthotropic units that bolt to the bridge during assembly)

### Bridge erection method:

Full cantilever launch

### Design load:

- 1 lane of (2) FMX Truck at 10m apart or 1 lane of a Mine Transporter Truck
- Pedestrian Load (2.39 kPa)
- AASHTO Wind Loading (6.567 kN/m)
- 50 mm of Overburden @3000 kg/m<sup>3</sup> (1.532 kPa)

### 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