

Pedestrians and Utilities Detoured to Temporary Bridge During Construction in London

Acrow's modular solution provides alternative access throughout Bridgewater bridge replacement project

As part of the Bridgewater Triangle development in Stratford, London, an ageing bridge with a downgraded capacity of 25t was slated for replacement. The bridge carried utility lines critical for nearby residences, so a temporary bridge was needed to maintain reliable, uninterrupted service during the construction of the new bridge. In addition, the detour bridge would also allow safe access for construction workers.

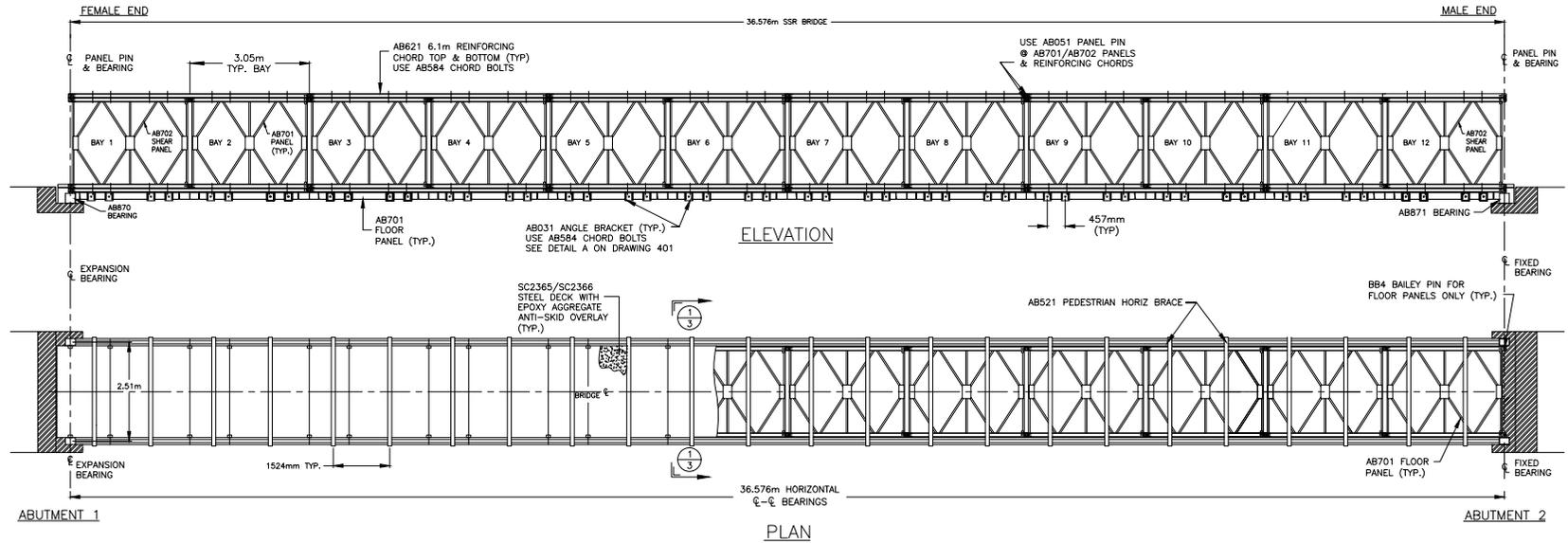
Acrow's modular steel box bridge, 36.58m in length with a walkway width of 2.23m, was chosen for the project and hired by the project's main contractor, Kilnbridge. Delivered in 3 preassembled pieces to allow for a quick installation, the structure was completed with an anti-skid epoxy resin deck.

The site posed considerable challenges as vehicular access near the new abutments was not permitted. This meant bridge components could not be delivered nearby, nor could a crane be used to install the structure. The solution entailed

assembling the bridge downriver on a pontoon, floating the pontoon into position, then jacking up and rotating the structure before lowering it into place on the new abutments. An Acrow site advisor was on hand to provide technical support and guidance throughout the construction and installation.

A week after the bridge components arrived, the structure was in use, which allowed the utilities to be diverted from the old bridge prior to its demolition. Acrow's bridge will be in service until construction of the new bridge is finished and utilities are permanently repositioned.

The light weight and rapid assembly of Acrow's bridge proved an ideal solution for this unique project. With a wide range of lengths and widths available, Acrow's cost-effective, high-quality pedestrian bridges can provide enhanced safety for numerous temporary or permanent applications.



Specifications

Bridge length:

36.58m

Walkway width:

2.23m

Deck surface:

Anti-skid epoxy aggregate

Bridge erection method:

Assembled on a pontoon, floated down the river into position and lowered into place using a jacking system.

Design load:

5KN/m²

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