



Acrow's Detour Solution Minimizes Traffic Disruptions During Historic Bridge Renovation in Italy

Modular steel structure enables rapid restoration of damaged crossing on critical route

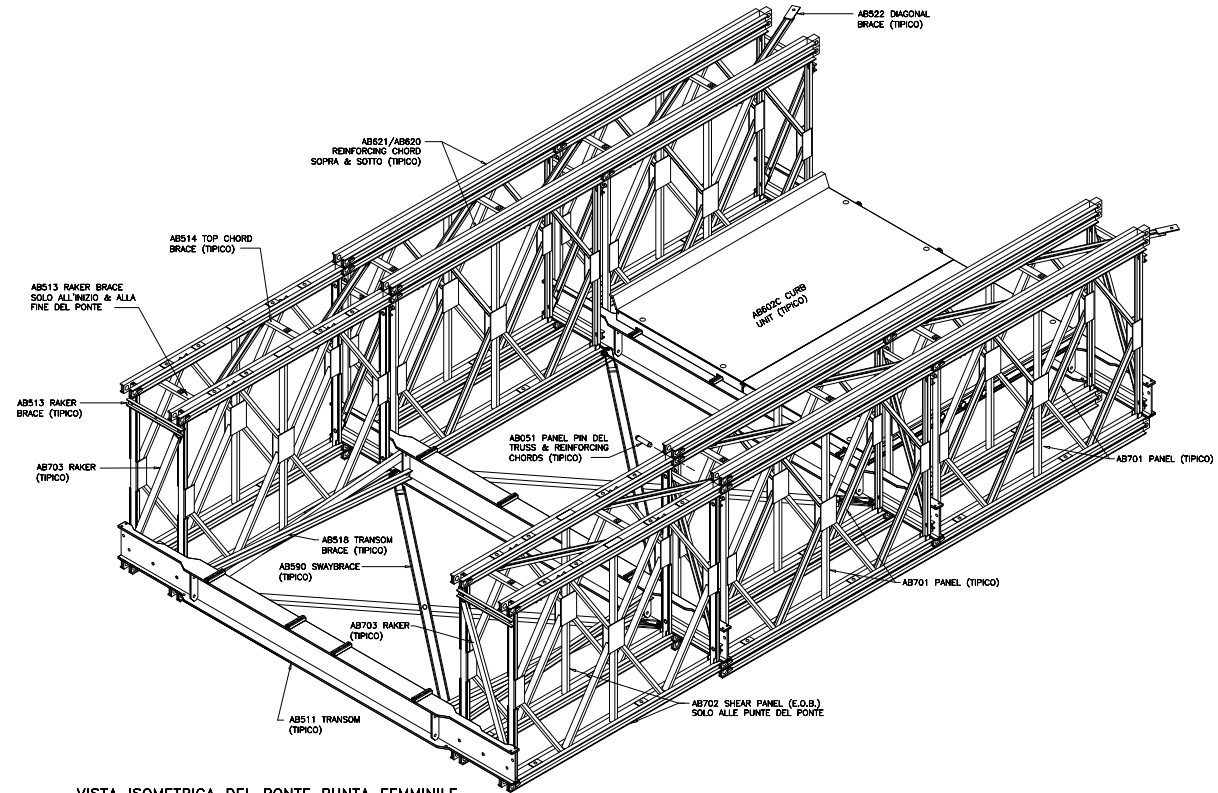
The Ponte di Debba carries traffic over the Bacchiglione River in the village of Debba. The cast iron bridge, built in 1885, had structural problems during inspection in the summer of 2022 and immediately closed to motor vehicles, requiring travelers to detour 12-15 kilometers around the site. In addition to the inconveniently long detour, the closure impacted emergency response times. Consequently, the Municipality of Vicenza, owner of the structure, opted to install an Acrow panel bridge to restore the route safely and reliably during the complete rehabilitation of the historic structure.

The single-lane structure has a length of 30.48 meters (100') and a roadway width of 3.67 meters (12'), with an epoxy aggregate deck surface and a design load of 44 metric tonnes, as per the Eurocode/Italian Standard. Once the Acrow components arrived at the site in July 2023, the bridge was launched a week later, fully decked, by project contractor Carraro Impresa using a 70 metric tonne crane. Following testing and installation of traffic lights and signage, the bridge was

commissioned and opened to traffic on August 2. Acrow provided technical assistance during the assembly and supported live load testing activities prior to the bridge commissioning.

Despite the speed and success of the installation, the project posed complexities. The tight assembly area contained high-voltage wires and was bordered by a pedestrian path, which had to remain open during the installation. Heavy traffic on the adjacent roadway meant closure was not an option, resulting in the completion of temporary works to increase the rigging area for the crane being limited to a single weekend.

Acrow provided preliminary feasibility studies, including digital renderings, to support the project planning process and illustrate placement of the temporary modular bridge near to the existing one. After the rehabilitation project is complete, the Acrow bridge will be dismantled by Carraro Impresa and stored for future use.



VISTA ISOMETRICA DEL PONTE PUNTA FEMMINILE
 IL W-BEAM GUARDRAIL NON E' STATO APPLICATO PER CHARIFICAZIONE

Specifications

Bridge length:

30.48m (100')

Roadway width:

3.67m (12')

Guide rails:

Truss mounted W-Beam

Deck surface:

Epoxy aggregate

Bridge erection method:

Crane-assisted launch

Design load:

44Mt

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