



## Permanent Bridge Installation at Rural Solar Farm Enables Access for Maintenance Vehicles

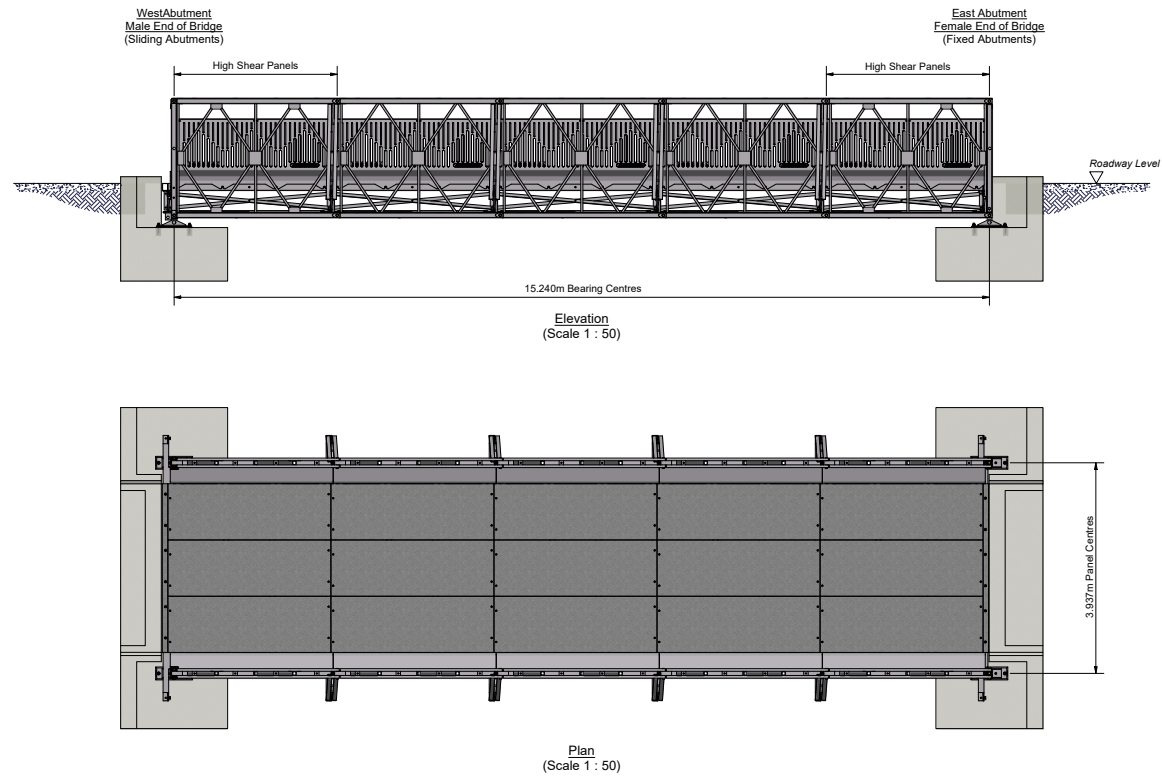
Acrow replaces an old bailey structure with new modular system in four days

When Swindon Borough Council needed a replacement for an ageing panel bridge on Shaw Farm, they selected a Mabey Compact 200™ (C200™) from Acrow as the best option to replace the structure, which provides maintenance access to an adjacent solar installation. In addition to the speed of construction and cost-effectiveness of their reliable, high-quality modular solutions, Acrow's extensive experience working with older panel bridge designs made them a good partner for the project.

The C200 selected for the project is 15.24 metres long by 3.15 metres wide, with an anti-skid deck and customised Mabey SmartEdge® safety infill panels. SmartEdge is a low-cost way to add personalised graphics to a galvanized steel panel that attaches to the bridge decks as an attractive alternative to more traditional safety options such as wire mesh.

Acrow's compact modular steel components were particularly well suited to the constricted site. Owing to overhead cables, no crane lifting was permissible. Instead, a simultaneous de-launch of the old bridge and launch of the new C200 was used. This involved the old bridge being jacked up and rollers placed underneath. Then, one bay at a time, the new bridge was attached at the rear and the structure pushed forward, enabling one bay of the old bridge to be removed from the front. This was repeated, using the old bridge as support for the new bridge until it was launched to its final position, before the new bridge was jacked onto its bearings.

The bridge was provided to project contractor Fergal Contracting Co. Ltd. Assembly and installation took place over a four-day period in the summer of 2023, with Acrow's technical advisors on site to provide technical support.



## Specifications

### Bridge length:

15.24m

### Roadway width:

3.15m

### Parapets:

SmartEdge® System

### Deck surface:

Anti-skid epoxy aggregate

### Bridge erection method:

Launched in sections, using the old bridge as a counterbalance.

### Design load:

HA+30HB

### Mabey C200™ bridge finish:

- All major components galvanized to BS EN ISO 14713 and BS EN ISO 1461
- All bolts are spun galvanized to BS EN 1461
- All pins are electro-plated in accordance with BS EN ISO 2081

### Mabey C200™ bridge specification:

- (A) Panel components to BS EN 10025 Grade S450J0 and Grade S355J2
- (B) Transoms to BS EN 10025 Grade S460M or Grade S355J2
- (C) Deck components to BS EN 10025 Grade S355JR and BS EN 10149 Grade S460MC
- (D) Ancillaries to BS EN 10025 Grade S275JR minimum
- (E) Panel pins to BS970 Grade 709M40 or 708M40
- (F) Bolts to BS 3692, BS14399, DIN 912, DIN 267, DIN 931, BS1083, EN8, EN3, EN15 and ISO898