

Providing quicker, safer and more efficient site access to Hydro Power projects in the UK

Bridging Case Study



Ghuilbinn Bridge, Corroul Estate, Scotland

Client: Hydroplan Properties Ltd | **Solution:** Mabey Compact 200™ with SmartEdge™



The Challenge

Part of the sustainable energy plans for the Corrou Estate in Scotland includes the building of four hydro-electric schemes. These will provide green electricity for the next 50-plus years, for Corrou and c2,000 homes, via the National Grid.

One of the challenges faced by the project developers was the limited access to the site for heavy equipment. Located a few miles from the main road, the developers were looking for a lightweight solution that would provide vital access to the Hydropower Plant.

Additionally, Corrou Estate placed high importance on aesthetics and the environment. Due to this, the solution needed to look visually appealing and in keeping with the surrounding area.

The Solution

Mabey proposed a 55 metre, 2 span Mabey Compact 200™ footbridge with Mabey SmartEdge™ panels to improve the aesthetics of the bridge.

The Mabey SmartEdge™ system is a unique modular bridge accessory and provides a low-cost way to add an aesthetically pleasing side panel, which can be customised with optional colour finish, graphic or logo of choice. With safety at the forefront of the design, the system is an attractive alternative to traditional wire mesh solutions.

As bridge aesthetics were important to the customer, Mabey developed a 3D model and Virtual Reality experience, giving the contractor and customer the ability to visualise the bridge digitally in its environment. The Mabey CAD team took an image of the site location and transformed it into a virtual reality experience, giving the customer the ability to move around the bridge, take a walk onto it and see what it would look like onsite, prior to installation.

The CAD imagery and virtual reality experience reassured the client about the aesthetics of the proposed bridge and they decided to go ahead with procurement. A 55 metre, 2 span Mabey Compact 200™ was installed using a part-lift and part-launch installation technique due to the location of the bridge. The assembly area was a small hill, which made it difficult to install the bridge by cantilever launch. Additionally, the site was remote and therefore a large crane would have been unable to access the site.

The Result

The bridge now plays a vital role in the Hydropower Plant, giving pedestrians and small vehicles the ability to cross over the reservoir.



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