



ECS builds three deployable bridges for short term access

ECS Engineering Services has supplied three Bailey-type bridges to Scottish Canals for use as temporary crossings at various locations on the waterways when construction or repair work is in hand.

Each bridge is a different length, 8m, 10m or 13.5m and all are made of Infracore FRP (fibre reinforced polymers) so are strong and durable yet light enough for easy transportation and lifting by small plant.

Case Study: 065

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Other than length they are all essentially identical, being 1.8m wide between the parapets and designed for foot, bicycle and wheelchair users. Each has a factory-applied silica anti-slip coating resin bonded to the deck and complies with the safety and robustness requirements of Eurocode 0 (EN1990 para 2.1 & 2.2) concerning impact, damage resistance and quality control.

ECS has also supplied six entry/exit ramps, each of which will fit any of the bridges.

Jamie Wesley, Operations Director of ECS says: "We have made sure handrails and other fittings are all made of galvanised steel so that they do not corrode because the bridges will be spanning water and will be subject to extreme weather in the Scottish Highlands. By using FRP, we have also designed the bridges

to be buoyant, even with the fittings in place, which opens up the option of them being floated into position, although we expect aerial lifting to be the main method of installation."

As a material, FRP has many benefits compared to steel, concrete or wood, including being low maintenance, lightweight and sustainable. It is so durable that ECS offers it with a 50-year warranty against a 100 year expected design.

"Its many properties make it very versatile and able to blend into environmentally sensitive locations, which is a important factor with canal-side jobs," says Jamie.

ECS Engineering Services has a reputation for delivering high quality, reliable and cost-effective engineering solutions. It specialises in bespoke design and construction of water, energy and environmental processing and

management projects and works with utility and water companies, government agencies, drainage boards and other building and fabrication companies. It is the sole UK supplier of Infracore FRP technology.

ECS has regularly supported Scottish Canals, which is responsible for maintaining and improving the Caledonian, Crinan, Forth & Clyde, Monkland and Union Canals. It cares for 137 miles (220km) of waterways, 17 reservoirs, the navigation rights to four lochs and the magnificent Falkirk Wheel boat lift. Once the arteries of Scotland's manufacturing economy, today the canals have been transformed into valuable visitor attractions which play a major part in the nation's tourist industry, as well as providing important habitats for an incredible range of wildlife.

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