

Sedlescombe Bridge



Overview

Replacement bridge in Sedlescombe, East Sussex, to carry a footpath over the River Brede.

Details

Location	Sedlescombe, East Sussex, over the River Brede.
Description	The bridge consists of an infused deck, longitudinal stiffeners laminated over foam formers and transverse bulkheads in locations where handrail attach.
Client	East Sussex County Council.
Date of project	February 2015
Where FRP composites are used and why	This simple but elegant structure provided a solution that allowed fast and safe installation, minimised closures and diversions and gives an aesthetic solution that fits with the surrounding environment. Weather delays were avoided using off site manufacturing and allowing a completed footbridge, including installed handrails, to be delivered to site. When compared to traditional forms of construction, the solution was competitive in terms of capital cost, allowing the client to benefit from the whole life cost savings based on reduced maintenance and improved durability.
Specific design details	The span was 7590mm with a total section depth of 250mm and total width of 1600mm, including 125mm flanges for the handrail attachment.
Type of composite used	Manufacturing utilises infused uni-directional fibres combined with over-layed multi-axial fabrics, to produce a moulded deck.
Performance in service	The design of the new FRP Bridge, was based on the requirements of The Highways Agency's BD90/05 – Design of FRP Bridges and Highway Structures as well as Eurocode requirements.
Project partners	Lifespan Structures, CRL Composites, East Sussex CC, Kier Services.
Further information	This project was given a Special Award for Environment Engineering and Sustainability by the ICE.

Contact

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