

Mount Pleasant Bridge



Overview

Prefabricated glass-fibre reinforced polymer composite road bridge over the M6 motorway in Lancashire.

Details

Location	Near Garstang, Lancashire
Description	Road bridge over M6 motorway (between Junctions 32 and 33)
Client	Highways Agency
Date of project	2006
Where FRP composites are used and why	Lightweight pre-fabricated GFRP deck with steel girders used to minimise construction duration and lane rental charges.
Specific design details	Two span structure (50m length) with cellular GFRP deck supported and bonded on paired steel girders. Reinforced concrete abutments, reinforced concrete parapet beam with steel parapets. Optical fibre structural monitoring system installed to enable long-term structural performance to be tested.
Type of composite used	Deck – multi-axial pultruded sections of E-glass fibres in polyester resin.
Performance in service	No structural change in condition has been reported.
Project partners	Designer – AmeyMouchel Contractor – Balfour Beatty Manufacturer - Fiberline



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