

Dover Sea Wall Hybrid FRP Footbridge Replacement



Overview

A replacement FRP footbridge in Dover, Kent, designed and manufactured by Pipex px®.

Details

Location	Dover Sea Wall Hybrid FRP Footbridge Replacement
Description	A FRP replacement for a condemned railway footbridge.
Client	Network Rail
Date of project	2017
Where FRP composites are used and why	<p>By using FRPs the lightweight bridge structure, which is typically a third of the weight of its metallic equivalent, was able to be pre-fabricated offsite to enable fast track installation. Having low conductivity, FRPs are also compliant with Network Rail's standards for footbridges over live railway tracks.</p> <p>Additionally, FRPs are highly corrosion resistant, have a design life expectancy of 120 years, fire retardant, and virtually maintenance free which are particularly important for a structure over a busy railway line.</p>
Specific design details	<p>The hybrid footbridge was manufactured from a combination of pultruded and resin-infused components. The bespoke bridge decks, top cords and anti-slip phenolic wear plates were resin infused; the truss members, stairwells, landings and parapet panels are manufactured from FRP pultruded sections and plate.</p> <p>Each footbridge – two were placed together with connecting staircases & landings to span the railway tracks – weighs just 4.5 tonnes, typically 1/3rd the weight of metallic equivalents. The footbridge structure is approximately 31 metres long x 2.4m wide x 3.4m high.</p> <p>The structure is sprayed Moss Green (BS 14C40) as per the clients requirements.</p>
Project partners	Designer/Manufacturer – Pipex px® Contractor - Costain End User - Network Rail

Contact

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