



GRAND UNION CANAL FOOTBRIDGE | WATER EATON - MILTON KEYNES



CONSULTING engineers for the prestigious footbridge over the Grand Union Canal devised an innovation solution combining Leca® Lightweight Expanded Clay Aggregate and Tensar geogrids to solve soil stabilisation and access challenges.

Designed for client English Partnerships, with Jackson Civil Engineering as main contractors, the new 22-metre span elliptical brick arch bridge provides pedestrian access to homes in Milton Keynes.

The brick-built bridge, which echoes the style of Isambard Kingdom Brunel, presented the consulting engineers Pell Frischmann with major challenges due to unstable soils surrounding the canal plus the far bank of the canal being directly inaccessible to heavy plant via a sensitive residential area.

Drawing on previous experience of Leca® Lightweight Expanded Clay Aggregate and combining its use with Tensar geogrids and wall blocks to create reinforced earth retaining walls on each side of the bridge, Pell Frischmann utilised Leca® Lightweight Expanded Clay Aggregate not only as lightweight embankment fill but also as the stabilising backfill material for use with the Tensar reinforced soil wall system. It was the first structural application in the UK to use this combination of materials.

FACTS

Amount of material: 3,500m³ of LECA LWA (10-20mm)

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Delivery Method: Pneumatic Delivery

Main Contractor: Jackson Civil Engineering