

A5130 BUSWAY PARK & RIDE MILTON KEYNES, BUCKINGHAMSHIRE, UNITED KINGDOM

Reinforced Soil Walls and Slope Reinforcement

Problem

Construction of the new Busway Park and Ride close to Junction14 of the M1 Motorway at Milton Keynes required the improvement and widening of the A5130 feeder road from the nearby Northfield roundabout.

Predicted increases in traffic volume meant that the original single two-lane road had to be widened to a dual two-lane and cross a culverted stream at a point immediately adjacent to the Busway site.

Environmental and aesthetic requirements as well as unforeseen construction delays meant that a conventional reinforced concrete retaining wall for the roadway embankment was not viable.

Main contractors Balfour Beatty wanted a steep-faced embankment which would fit within a restricted construction corridor and that could be built quickly and blends readily with the semi-mature vegetation that bordered the site.

Solution

Three Green Terramesh® reinforced slopes with a total length of 240m and a maximum height of 3.6m run south from the Northfield roundabout to the Busway access road and returning into the abutments to the newly widened pedestrian under-bridge.

The Green Terramesh® reinforced slopes provided the steep-faced green solution and were straightforward to install within the tight construction schedule. It readily accommodated the differing site levels and its flexibility allowed the construction of crisp 90° returns to the pedestrian under-bridge as well as gentle curves where the Green Terramesh® slopes merge with the Northfield roundabout and Busway access road.

During installation, the topsoil wedge behind the face of the Green Terramesh® embankment was impregnated with a selected seed mix and vegetation rapidly established to an extent where the structure was barely visible beneath the natural cover.

Client: Milton Keynes Council

Designer / Consultant: Pell Frischmann

Contractor: Balfour Beatty Civil Engineering

Products used (Qty.)

Date of construction: 03/2011 - 03/2011

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After Construction



Immediately after construction



Early signs of vegetation establishing



One year after construction



One year after construction



One year after construction