

HACKBRIDGE HACKBRIDGE, SOUTH LONDON, UNITED KINGDOM

Reinforced Soil Walls and Slope Reinforcement

Problem

The busy A237 London Road crosses the Sutton and Mole Valley railway line in a heavily built-up area close to Hackbridge Station in South London.

Increasing traffic volumes meant that the narrow bridge over the railway had to be widened whilst still retaining the existing bridge footprint and without major disruption to traffic flow.

Consulting Engineers PaSCoE wanted steep face embankments for the two approach ramps which would fit within the restricted construction corridor and could be built quickly. They also needed to offer a softer green face finish in an otherwise hard urban environment.

Solution

A hybrid retaining wall solution comprising 70-degree Maccaferri Green Terramesh reinforced slopes to three of the approach ramp faces and one concrete panel-faced wall where space restrictions required a vertical structure.

A total length of 240m Green Terramesh wall was installed to a maximum height of 8m where the bridge crossed the railway line.

The Green Terramesh reinforced slopes provided the required steep-faced green solution and were straightforward to install within the tight construction schedule. Traffic disruption was kept to a minimum by first completing the north-going walls before commencing the south-going and switching one-way traffic lanes accordingly.

During the installation of the embankment walls, 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 is barely visible beneath the natural cover.

Client: London Borough of Sutton

Designer / Consultant: PaSCoE

Contractor: Birse Rail

Products used (Qty.)

Date of construction: 10/2010 - 10/2010

[Google Maps](#)

[Google Earth](#)



Green Terramesh® after installation



Green Terramesh® with Gabion Terramesh Wall



Two months after installation



3 years after completion