



Case Study

Rockbox and Tenax

Location:

Halton
Lancaster
LA2 6FD

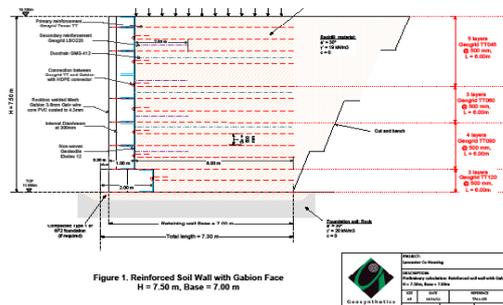
Client:

Lancaster Co Housing

Project:

Forge Bank Co Housing
Scheme

Forge Bank Co Housing Scheme is made up of 41 houses designed and built to the highest of eco-friendly standards. Due to it being built on a steep slope, the development required a solution for reinforcing the slope whilst maintaining a low carbon footprint and utilising existing materials.



The solution provided by Geosynthetics Limited combined site won materials with Tenax Geogrids and Rockbox Gabions to create a strong and reliable structure which maintained the ecological values of the project.

The most challenging structure was "Terrace E". This section of the design called for a 7.5m high reinforced structure. The development also needed to incorporate the column foundations for the 3 bed house above.

Due to the on site soil being a cohesive glacial till it was determined that a

reinforced earth wall comprising of Tenax TT uniaxial geogrids would minimise the footprint of the development and more importantly accommodate the column foundations.

Due to the distance between the column foundations to the face of the structure a Tenax LBO biaxial geogrid was introduced for secondary reinforcement to eliminate "Bulging" at the face.

The face of the structure needed to fit in with the natural aesthetics of the site to achieve this a single skin of welded Rockbox units were secured to the face of the wall with a series of mechanical connections.

Duodrain drainage composites were also placed behind the reinforced soil area to alleviate pore pressure. The solution allowed the use of site won soils and dramatically reduced the footprint of the structure whilst providing a finish in keeping with the rest of the development.



Contractor:

William Pye Limited

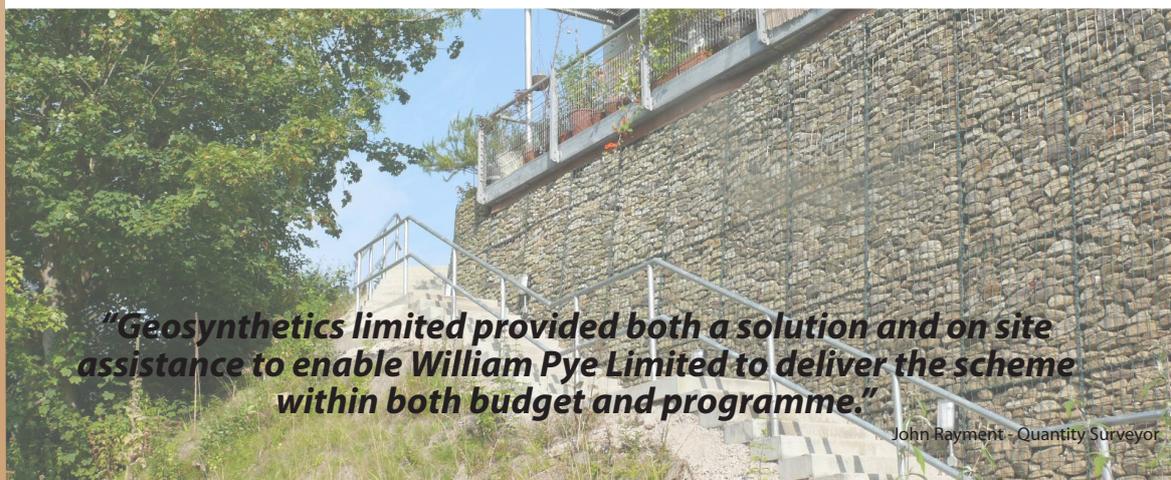
Consultant:

Ramboll



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www.geosyn.co.uk



"Geosynthetics limited provided both a solution and on site assistance to enable William Pye Limited to deliver the scheme within both budget and programme."

John Rayment - Quantity Surveyor



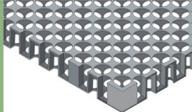
2 in 1
Landscaping Fabric



Gas Membrane
Radon, CO2, Methane,
Hydrocarbon Control



RoofCell
Sub Surface Drainage
And Water Storage



Alert®
Contamination Indicator



Geoglas®
Asphalt Reinforcement



Stratagrid
Soil Reinforcement Geogrid



AquaBlock®
Water Containment Liners



Geomembrane
Impermeable Membrane



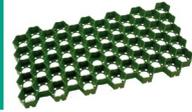
Strataweb
Slope Stabilisation



Bentotex® GCL
Geosynthetic Clay Liner



Golpla
Grass & Gravel Paving System



T-Block
Modular Retaining System



Cellweb® TRP
Tree Root Protection



Golpla Pregrown
Ready To Lay Paving System



Telegrid
Woven Polyester Geogrid



DuoDrain®
Composite Drainage Product



Interlock
Extruded HDPE Geogrids



Televev
High Strength
Woven Geotextile



Erosion Control
Comprehensive Range



Knotblock®
Japanese Knotweed Barrier



Tenax
Soil Reinforcement Solutions



Ekotex®
Non Woven Geotextile



Landlok
Turf Reinforcement Mat



Total Traffic Exopave
Heavy Duty Paver



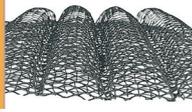
Fiberforce®
Equestrian Geotextile



Nicospan
Erosion Control



Trinter
Erosion Control Mat



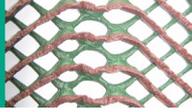
Fibertex
Non Woven Geotextile



Rhyno®
Woven Geotextile



Turfmesh
Grass Reinforcement



Flexitex
Textile Shuttering



RockBox
Gabion Mattresses



RootBlock
Root Barrier

