

Case Study

Stratagrid 200 & Landlok 450 Inland Port

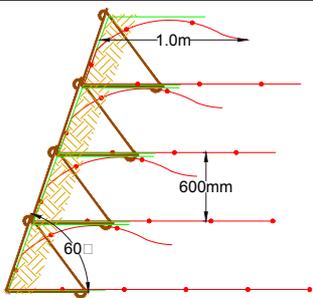


Location:

Rakes Lane-Rail Bridge
Doncaster
South Yorkshire

Project Description:

Reinforced soil wall to widen the approach to either side of a railway bridge



Technical Requirements:

- Heavy loads
- Long term solution
- Quick installation
- Value Engineering

Contractor:

Buckingham Group Contracting

Consultant:

BWB Consulting Limited

In order to increase traffic movements for bulk earthwork activities on the scheme, it was necessary to widen the approach roads either side of the existing railway bridge.

To avoid encroaching on adjacent land owned by a 3rd party and incurring significant costs, Geosynthetics were approached for their technical expertise relating to geogrid reinforced soil structures.

The batter of the slope needed to be increased beyond the natural repose of the proposed soils. It was determined that a reinforced earth solution represented the most economical and cost effective solution.

When designing this structure several factors had to be taken into consideration, including the heavy loads that the wall would be subject to after installation.

Geosynthetics suggested using Stratagrid (its Uniaxial geogrid) as it met the high tensile strength required whilst also providing a long term solution.

To ensure speed of installation and that a constant slope angle was achieved, the face of the slope was constructed using sacrificial steel framework which was bent to the desired angle. Immediately behind the framework Geosynthetics TRM 450 Erosion Control matting was used to retain soils and promote vegetation growth.

Geosynthetics Limited were able to provide the client with expert knowledge and engineering assistance combined with high quality products at competitive prices.

This solution demonstrates the level of service Geosynthetics can provide from the original design stages through to completion with full support throughout the process.



Reinforced soil wall construction featuring Stratagrid



Structure with sacrificial steel framework



Reinforced wall showing Landlok face



Finished structure ready for use

"We were very happy with the solution provided by Geosynthetics Limited in respect of technical assistance, quality of product and speed of delivery"

Laurence Bonner - Senior Project Manager



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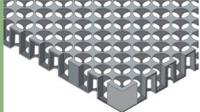
2 in 1
Landscaping Fabric



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



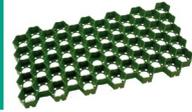
Strataweb
Slope Stabilisation



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



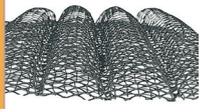
Fiberforce®
Equestrian Geotextile



Nicospan
Erosion Control



Trinter
Erosion Control Mat



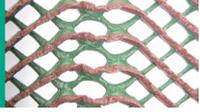
Fibertex
Non Woven Geotextile



Rhyno®
Woven Geotextile



Turfmesh
Grass Reinforcement



Flexitex
Textile Shuttering



RockBox
Gabion Mattresses



RootBlock
Root Barrier

