



Case Study

Stratagrid SG 150 / SG 200

Location:

Hollyford Wind Farm
Tipperary

Client:

Denis Moriarty Limited

Project:

Hollyford Wind Farm
Tipperary



Contractor:

Intergeo Services
Limited



Geosynthetics were approached by Intergeo Services to engineer a solution for three 3000kW wind turbines located above Hollyford in the Silieve Felim mountains of Tipperary. Geosynthetics were able to design a sustainable and cost effective solution to reinforce the platform holding these turbines.

As the location was set on the side of a steep slope it was necessary to build a working platform on the edge of the mountain.

To ensure that the amount of fill material was minimised, a reinforced earth solution was proposed to achieve a steep slope and assist in reducing the overall footprint of the structure.

The platform needed to provide sufficient bearing capacity to accommodate construction traffic and heavy lifting equipment needed to construct the 75m tall turbines. The design surcharge used in the calculation was 45 kN/m² and a bearing capacity of 200 kPa on the finished surface of the hardstanding.

Geosynthetics determined that utilising on site granular material and a combination of 35kN & 55kN polyester geogrids with 600mm space that the 10m high, 70 degree walls would be a viable option to the contractor.

The calculation of the reinforced soil wall was performed following the SD8006:2010



for the internal stability and Eurocode EC7 to assess global stability.

By introducing the reinforced earth solution we were able to reduce the overall height of the structure significantly from approx 30m to a more realistic 10m. This allowed the contractor to deliver the scheme quickly and within budget.

Geosynthetics Limited specialise in designing sustainable solutions whilst utilising the natural resources. The links with reliable product suppliers allows the inhouse design team to create the best solution at the best price.

“The service from Geosynthetics was first class from provision of preliminary calculations to determine outline design to delivery of materials on time and accurately. Geosynthetics have proved themselves to be a key supplier for our reinforced earth business.”

Phil McGoldrick - Managing Director

Geosynthetics Limited

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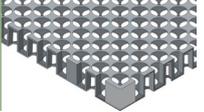
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Radon, CO2, Methane,
Hydrocarbon Control



RoofCell
Sub Surface Drainage
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Geoglas®
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Soil Reinforcement Geogrid



AquaBlock®
Water Containment Liners



Geomembrane
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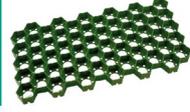
Strataweb
Slope Stabilisation



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



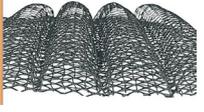
Fiberforce®
Equestrian Geotextile



Nicospan
Erosion Control



Trinter
Erosion Control Mat



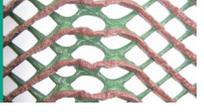
Fibertex
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Turfmesh
Grass Reinforcement



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RootBlock
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