

# Case Study

Tree-root protection  
on new access roads

Project: Achnagairn House. Scotland  
Client: Achnagairn House  
Architects: Frederick Geddes Architect  
Product(s): TERRAM™ 1000, TERRAM™ Geocell 25/15

In the spring of 2009, the owners of Achnagairn House, a stunning mansion in the Scottish Highlands, were faced with a major landscaping problem.

The 24 bedroomed listed property had been meticulously refurbished to the most luxurious of standards to provide an unrivalled setting for highprofile corporate functions and exclusive weddings. However restrictive access to the hotel meant the owners urgently needed to reinstate an old driveway, originally dating back to the 18th Century. The owners' dilemma was that this historic drive passed through woodland which had since been placed under a tree protection order (TPO) by the Highland Council, which strictly limited the type of construction methods that could be used to get the road fit for purpose once again.

As a condition of planning permission being approved, the council ruled that all trees along the drive needed to be treated with the utmost of care. The owners' architect, Fred Geddes, recommended a combination of TERRAM Geocell 25/15 and TERRAM 1000 as the solution. Critically, it was also acknowledged by the Planning Department of the Highland Council and the appointed Arboriculturalist, Jacqueline Waring, as being the most eco-friendly and least disruptive method of reinstating the road.

For the owners of Achnagairn, not only was it crucial that the driveway restoration didn't impact the surrounding trees, it was also extremely important that the drive itself blended into the natural surroundings, enhanced the already stunning lands cape and contributed to a sustainable environment for the neighbouring woodland.



Before application



During construction





On completion



# Case Study

Tree-root protection  
on new access roads



Project: Achnagairn House, Scotland  
Client: Achnagairn House  
Architects: Frederick Geddes Architect  
Product(s): TERRAM™ 1000, TERRAM™ Geocell 25/15

Construction began with the driveway area being cleared and the existing surface removed, with great care taken not to cause soil compaction around the existing tree roots. A layer of TERRAM 1000, a permeable geotextile, was laid over the area to prevent any of the new surface fill material from penetrating into the soil. The TERRAM Geocell was then pegged out on top of the fabric, and the cells filled with a permeable aggregate. A permeable wearing course of gravel was then placed on top of the Geocell base, resulting in an extremely hardwearing and yet natural and elegant-looking drive that truly complemented the hotel's setting.

TERRAM Geocell cellular confinement system has proven itself as the #1 geotextile solution for providing ground reinforcement within tree

protection areas. Not only does it provide a stable base for traffic and an even load distribution because of its strong yet flexible cell structure, but unlike other landscaping products, the geotextile material is permeable which supports the natural circulation of air and water around the tree roots, allowing them to continue to grow and flourish.

At Achnagairn House, the was successfully installed within an incredibly short timescale and proved itself to be very cost effective in comparison to traditional construction techniques. As a result, the driveway was fully restored and operational in only a few weeks, allowing visitors to once again appreciate the breathtaking, historical route to the hotel through a beautiful avenue of carefully protected trees.



**TERRAM**  
Geosynthetics you can trust

™ indicates a trade mark of Fiberweb plc or a Fiberweb Group company, many of which are registered in a number of countries around the world

Fiberweb Maldon, Fiberweb Geosynthetics Ltd.  
Blackwater Trading Estate • The Causeway  
Maldon • CM9 4GG • United Kingdom  
Tel: +44 (0) 1621 874200 Fax: +44 (0) 1621 874299  
e.mail: info@terram.com • www.terram.com

A **fiberweb** BUSINESS