Case Study

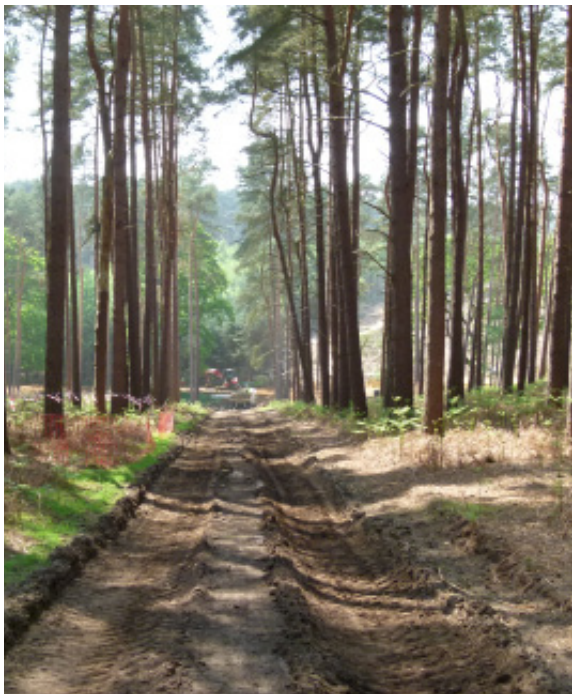
Holiday Village, Woburn

Installation of Abweb to form access routes over protected tree roots

Project Information	
Project	Creation of footpaths, cycle paths and construction access roads in new holiday village development, Woburn
Products	Abweb 200/300
Area	4700m^2
Contractor	Birse
Client	Center Parks
Engineer	Hannah Reed
Completed	November 2012

The Center Parcs Woburn is the fifth village development of the holiday chain in the UK and represents a major investment by the firm. Following completion of all the requirements of the planning consent construction began early in 2012 for a target opening date of spring 2014. The requirements of the planning consent included building a new roundabout, the diversion of public rights of way and the creation of new bridleways and cycle paths around the development complex.

Many of these bridleways and cycle paths were through mixed forest comprising mature and semi-mature deciduous trees intermixed with some blocks of coniferous plantations within which the holiday village was to be constructed.



Access track prior to installation of Abweb system

Whilst the planning authorities requested that these infrastructure works were undertaken they also insisted that they were undertaken in a method sympathetic to the environment and inparticular using no-dig construction methods that would not damage the roots of the trees through which the access roads and bridleways were to be constructed.

Whilst there are a number of solutions available Hannah Reed, the project engineers, chose to utilise as their preferred solution a geocell structure, Abweb, within the

road construction. This method is supported as a solution in Aboriculture Practice Note 12 (APN12) and is widely accepted by Tree Protection Officers in this application.

Using Abweb for tree root protection allows the formation of a flexible and permeable solution that forms a structural platform for the construction of the required accesses through the root protection area of existing trees.

Abweb has a unique three-dimensional cellular structure which, when filled, mitigates the vertical loads pressure on the sub-soils containing the tree roots, thus preventing damage through compaction and root starvation.

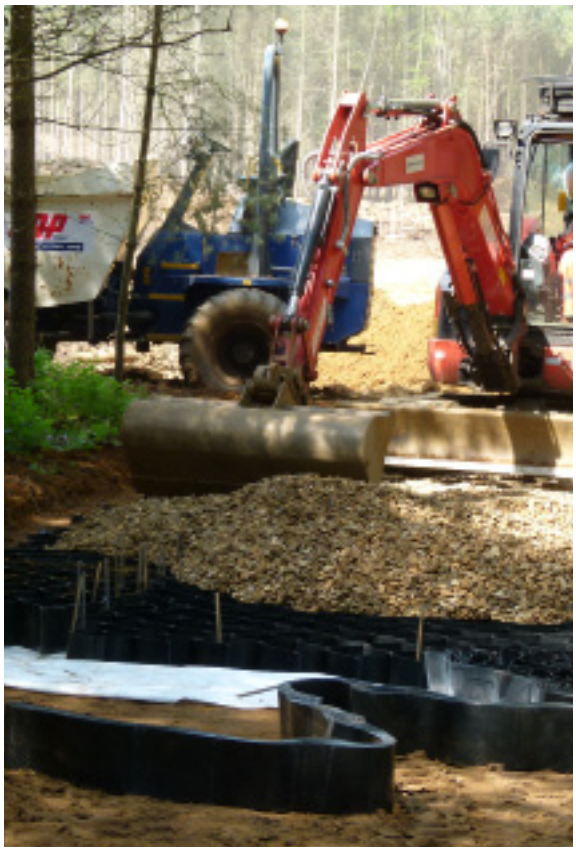
Using granular materials to fill the Abweb allows both air and water to permeate to the roots, essential for the long-term welfare of the tree.

Using the Abweb allowed the access paths and roads to be built using a no dig solution fulfilling the engineers specification requirements.

As the pavement can be built using a lower depth of subbase, in some cases by as much as 50%, site preparation prior to installation of the Abweb system consisted only of the removal of surface vegetation thereby avoiding damage to the roots.

Using a no-dig construction also allows the additional benefit of both construction times and costs to be reduced in the project.

Abweb opened and infilled with 'no-fines' stone fill



Infilling the Abweb

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