



## Case Study

# Cellweb® Tree Root Protection

### Location:

Gibside,  
Burnopfield,  
Gateshead

### Client:

National Trust

### Project:

Car Park



### Contractor:

Owen Pugh

**OWEN PUGH**

### Geosynthetic Limited

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**The National Trust's site at Gibside are Georgian landscape gardens and a vibrant nature haven on a grand scale. After centuries of decline Gibside has been restored to increase visitor numbers especially families. Large quantities of additional parking would be required to cope with the increase in vehicle numbers.**

An area of the grounds were identified as a suitable site to house the new car park, however the area was filled with trees and in addition the ground conditions were very poor. The trees were removed to allow the engineers to carry out CBR tests to determine the bulk density of the existing soils.

To create a traditional car park would not have been in keeping with the rural environment also there would have been high costs associated with traditional types of construction on very weak soils.

A solution was needed to provide a free draining, shallow depth construction and to give it the stability required to take vehicular traffic.

We designed a Cellweb® TRP system 150mm in depth. This was infilled with a clean angular 20/4mm stone. Cellweb® TRP is a cellular confinement system that increases the shear strength of infill. This allows a minimal thickness of sub base materials to be used to



provide load bearing surfaces. The Cellweb® was positioned and infilled with the granular material and then topped with a decorative gravel.

Cellweb® TRP provided a cost effective solution, sympathetic to its surroundings and allowed reduced construction thicknesses.

The car park has now opened and is taking up to 200 cars per day during the summer opening times.

***We selected the Cellweb® TRP system due to its history of use and performance capabilities. The system was clearly the best solution of its type on the market.***

Lee Buchannan – Owen Pugh.

