

Cellweb® TRP

The Contractors Guide



Complies with
BS:5837



No Dig
Solution



Adopted by
Councils



100%
Success Rate



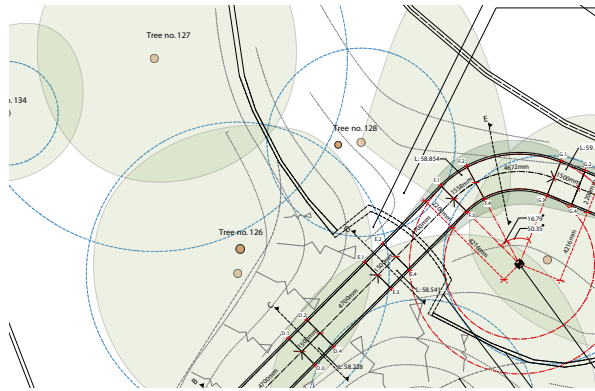
Cellweb®TRP
Guaranteed



Independently
Tested

What is Cellweb®TRP?

Cellweb®TRP is a cellular confinement system specifically designed for tree root protection. The system creates a stable load bearing surface for traffic or footfall whilst eliminating damage to roots through compaction and desiccation. The Cellweb®TRP system comprises of three specific elements; Cellweb® TRP, Treetex pollution control geotextile and an infill of clean angular stone. The system has been designed to combine the best possible products to create an unparalleled solution for tree root protection applications.



What is a Root Protection Area (RPA)?

The Root Protection Area is the minimum area around a tree which is deemed to contain sufficient roots and soil to maintain the trees viability. The RPA is calculated as 12 times the diameter of the tree trunk and 1.5m off the ground; for example a tree has a trunk that is 500mm in diameter and is measured 1.5m above the ground. This calculates that the RPA will have a radius of 6m ($500\text{mm} \times 12 = 6,000\text{mm}$). The RPA is a radius relative to the tree trunk, but the calculation is based on the trunk diameter. This is used to protect all of the retained trees within and around the development.

What is a Tree Preservation Order (TPO)?

Tree Preservation Orders are put in place by local planning authorities in England to protect specific trees and woodlands in the interest of amenity. Preservation orders prohibit; cutting down, topping, lopping, uprooting, wilful damage and wilful destruction of trees as per The Town And Country Planning (Tree Preservation, England) regulations 1990 and 2012. If found guilty of tree cutting offences in the UK, the court can fine up to £20,000. In serious circumstances, a person can face unlimited fines if found guilty by the Crown Court.

How Cellular Confinement Works?

By confining the infill material, 3D Cellular Confinement Systems work by altering the angle of load distribution, reducing the load on the soil and increasing its bearing capacity. This ultimately minimises soil compaction and maintains an open soil structure. This is crucial for continued water permeation and gas exchange in the rooting environment.

What makes Cellweb®TRP the best solution?

- Cellweb®TRP is the only established guaranteed tree root protection system on the market in the UK.
- It Complies with BS 5837: 2012, Trees in relation to design and demolition/construction recommendations.
- It is the only independently tested system, ensuring compliance with recommendations made in BS 5837: 2012.
- Cellweb®TRP has had a 100% success rate on thousands of projects.
- Our in house tree root protection team will provide technical support both over the phone and on site.
- Our in house qualified civil engineers will provide site specific technical recommendations.
- An extensive bank of case studies is available to download for free.
- We offer free educational tree root protection seminars across the UK.
- Cellweb®TRP has been adopted by a number of local authorities throughout the United Kingdom.



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What the Guarantee covers and how to get your project guaranteed?

The guarantee covers the replacement of the dead tree(s) up to the value of £10,000 per tree. In the unlikely event the Cellweb®TRP System fails, the guarantee will also cover the replacement of the system up to £50,000.

To obtain the guarantee you will need to provide a copy of the arb report. Geosynthetics Ltd will then send a complementary technical recommendation. A scoping agreement will then be signed to clarify what tree(s) are guaranteed.

For more information please contact the team on 01455 617 139.

Why is stone so important, how can I source it and how much will I need?

In conjunction with Cellweb®TRP we recommend using 4-20mm of clean angular stone. Having an angular stone allows the stone to bind together providing rigidity throughout the cells and also allows pore spaces for the diffusion of water and gasses. Having a clean stone will ensure that fines do not clog the Treetex layer.

If you would like more information on the stone specification, please contact the team on 01455 617 139 however this can be sourced from your local quarry.

What is Treetex and what does it do?

Treetex is a pollution control geotextile developed to work in harmony with the Cellweb®TRP System. The heavy duty needle punched geotextile fleece is manufactured from polypropylene. Treetex is ideal for use in a Tree Root Protection system as it is easily moulded to the shape of the aggregate and has been independently tested by Coventry University. The product has been proven to absorb 1.7 litres of oil per m² ensuring that the roots are not damaged by pollutants from the surface.

Do I need any specialist equipment for installation?

The system is very easy to install and simply requires a stapler, staples and pins to hold the panels down during installation. Please note on larger scale projects for speed of installation, a hydraulic stapler may be used.

What applications can Cellweb®TRP be used for?

Cellweb TRP is likely to be required in the following scenarios:

- For the construction of any new hard surface within the RPA of any retained tree on or bordering the site.
- For the construction of temporary ground protection where construction and foot traffic must pass through the RPA during construction. BS 5837 2012 – Trees in relation to design, demolition and construction recommendations states that: "New temporary ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil."
- Where the use of 'No Dig' construction has been specified by an arboricultural consultant within the tree protection plan.
- Where Cellweb TRP has been specified in the architects or engineers plans and drawings.



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Free technical support from Geosynthetics Ltd is available

Our tree root protection team can offer support and advice in the following areas.

- Installation
- Overcoming changes in levels and other site specific challenges
- The Cellweb infill material – ‘What stone and how much’
- Surfacing options for the Cellweb®TRP system
- Edging the Cellweb system
- Quantifying and pricing

All of the above services are free of charge and have been developed to ensure that you are provided with the required levels of tree root protection for your site. The advice and services have been given to ensure that you are able to provide an excellent service to your clients and do not fall foul to the tree protection law or planning conditions.

What is the delivery turn around time as standard?

Delivery turn around for the Cellweb®TRP system is 24-48 hours* dependent on location and volume purchased.

Which depth of Cellweb®TRP do I need?

Depth of Cellweb®TRP	Unit	Gross Vehicle Weight (GVW)	Application
200 mm	Kg	< 60,000	HGV & Construction Traffic
150 mm	Kg	< 30,000	Emergency Access & Refuse Vehicles
100mm	Kg	< 6,000	Cars up to a Transit Van
75mm	Kg	< 1,000	Pedestrians & Cycleways

Can I use an alternative system?

Cellweb® TRP has a number of unique attributes and once this has been specified by architects and designers, please be aware that no other system can comply. For guidance on ascertaining if another system is suitable, please contact our team for assistance. A system failure can ultimately bring about the demise of the protected tree(s) and could lead to prosecution and unlimited fines.

Please be aware that if Geosynthetics Ltd have completed site specific calculations and provided a full technical recommendation, use of another product will void our engineered solution and the guarantee will no longer be applicable.

For further information and assistance with Cellweb Tree Root Protection, please contact Geosynthetics Ltd on 01455 617 139.

