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**CORE TREE ROOT PROTECTION** - Specification & Installation



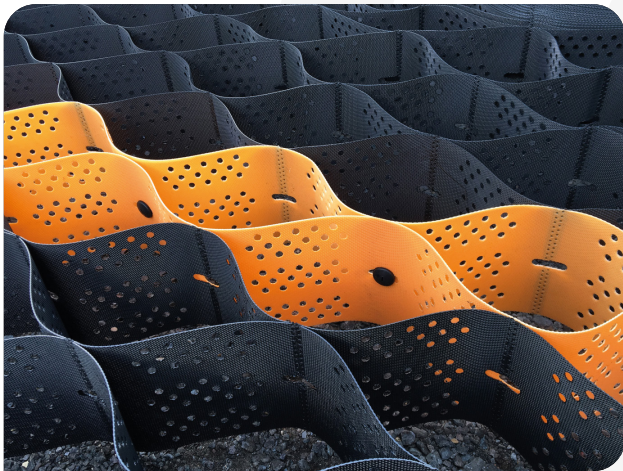
# CORE TREE ROOT PROTECTION

## Specification & Installation

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### WHY CHOOSE CORE TRP?

Fast becoming the UK's leading manufacturer and supplier of tree root protection systems providing a fully AGN12 compliant solution for use in both domestic and commercial applications.



We have an experienced technical team on hand to deal with any site specific queries and an online library of product specification sheets, install guides and case studies available to download.



**CORE TRP SYSTEM**  
Is a CE Certificated Product



#### FULLY COMPLIANT SYSTEM

Our system has been tried and tested on a range of projects from small residential driveways to large commercial projects. Our TRP system is CE certified and complies with BS 5837:2012 and the latest Industry guidance notes AGN12 (2020).



#### INDUSTRY LEADING GUARANTEE

We are the only UK company to offer a 25 year guarantee - giving the client, the tree officer and the arb consultant the assurance that our system will provide the necessary root protection.



#### TECHNICAL SUPPORT

We have a team of technical experts on hand who will be happy to give advice and guidance on specification and installation as well as answer any site specific questions.



#### PRICE PROMISE

You will not buy an equivalent system cheaper anywhere else on the market. We strive to give our customers our lowest possible price at all times but on the rare occasion you receive a cheaper price, just send us the competitors itemised quotation and we promise to beat it by at least 5%.



#### FAST DELIVERY

We have a huge UK stock holding which enables us to dispatch same day and offer a next day delivery service to most locations in the UK.



#### A COMPLETE SYSTEM

We manufacture and supply a complete tree root protection system offering specialist infill aggregates; wearing course materials; on site training; or a complete 'turn key' installation service.

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### THE PROBLEM...

Due to the rate of urbanisation within the UK it is becoming increasingly common to find trees located in both rural and urban areas with a Tree Preservation Order (TPO). TPOs ensure the protection and welfare of mature trees, especially where construction or groundworks are being carried out nearby.



Damage to trees can be caused by a number of factors including:

- Over compaction of surrounding soils due to construction & vehicular traffic
- Contamination of surrounding soils due to oil, diesel or chemical spills.

**The majority of a tree's fine root system is within the upper 30cm of soil (Perry 1989; Gilman 1990)**

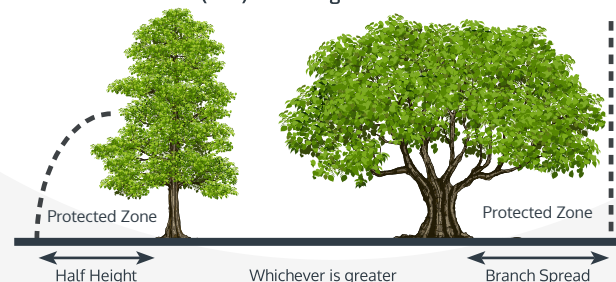
- Root damage due to excavations.
- Storage of heavy building materials within the Root Protection Area (RPA)

BS 5837:2012 contains explanatory guidance on tree care, carefully outlining best practice for every aspect of dealing with trees throughout the development. It explains the importance of the RPA and how it should be dealt with.

Failure to provide adequate protection within the RPA could result in the surface becoming over compacted and rutted; reducing oxygen and nutrient exchange to the roots, ultimately causing damage or destroying the tree.

Local authorities have the right to prohibit construction work within the RPA of any mature tree and can issue a TPO. Failing to protect the tree means you have failed to comply with the TPO. This is treated as a serious offence towards the environment and can result in a fine of up to £20,000 per tree.

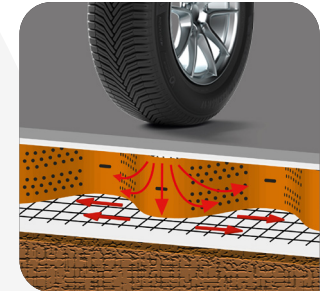
Root Protection Area (RPA) According to BS 5837



Downward pressure causes over compacted soil



CORE TRP distributes the weight evenly



The majority of roots are found within 1m of the surface and can extend to a distance equal to the tree's overall height. This makes it an impossible task to build a sustainable track or driveway, near to a mature tree, using traditional excavation methods without disturbing the feeder roots.

Arboricultural Practice Note 12 (APN12:2007) sets out the principles of 'No Dig' construction. Since then, research, technological advances and numerous studies of different materials and techniques have been explored, concluding that the use of cellular confinement systems are a comprehensive and cost effective solution.

The latest guidance AGN12 published in 2020 sets out the relevance of cellular confinement systems, provides detailed technical advice and specification guidance including site preparation and installation.

**Ben Rose, Author of the guidance note chose CORE to assist with diagrams and content.**



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### THE SOLUTION...

CORE TRP is a 3-dimensional cellular web system that provides protection to the roots of mature trees from pedestrian and vehicular traffic.

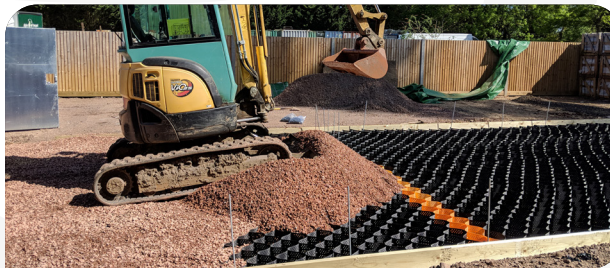
It comprises of a geocellular confinement panel that provides 3-dimensional load distribution; porous and highly puncture resistant TRP membranes; and an optional TRP geogrid that provides additional 2-dimensional support.

The CORE TRP system is fully compliant with BS 5837:2012 section 7.4.2 Note 1 and has been specifically designed to achieve the 'No Dig' construction method set out in AGN 12.



The system is installed within the RPA on top of the existing soil to create a shallow high load-bearing 'above ground' subbase. Studies have shown geocell foundations can provide adequate support at approx. 50% of the thickness required by non reinforced base courses (Bathurst & Jarrett 1988).

It helps distribute the weight of traffic evenly across the surface delivering a significant reduction in the loads transferred from above known as the stress dispersion effect. This prevents harmful subsoil compaction around the roots.



#### To comply with BS 5837:2012, s7.4.2.3

Any new hard surface should not exceed 20% of any existing unsurfaced ground within the Root Protection Area (RPA)

It is a completely porous system allowing continued water permeation which helps to maintain a healthy tree.

The CORE TRP panels should be filled with a clean angular cohesive material with 'no fines' as highlighted in APN12, such as our CORE SubFlow20 aggregate. This will allow oxygen to diffuse into the soil and damaging gases such as carbon dioxide and methane to escape out of the soil.

The correct fill material is a key requirement for the success of the system as it needs to remain porous yet have sufficient surface friction to enable adequate compaction. This is aided by our specially designed textured cell wall.

The system can be used as a temporary track for construction traffic, or as a permanent subbase for all types of traffic.

If it is intended for permanent use the system will require a porous wearing course. The most popular options of porous wearing course are:

- **Porous Pavers / Gravel Grids** - such as the CORE TRP gravel grid.
- **Porous Grass Pavers** - such as CORE GRASS reinforcement grid.
- **Resin bound** - can be laid over CORE DRIVE
- **Block Paving**
- **Porous Asphalt**



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### CORE TRP SYSTEM COMPONENTS & HOW THEY WORK...

## WATER INFILTRATION & GASEOUS EXCHANGE

It is no secret that without sufficient access to water and oxygen our trees would ultimately perish.

Therefore, it is paramount to consider the impact that architecture & construction has on the landscape when designing structures that are within, or that are close to, Root Protection Areas.

It is important to incorporate design elements that allow the roots maximum accessibility to water and oxygen.

The main reason tree roots are starved of water and oxygen are over compaction of the soil surrounding the roots and impermeable wearing courses and ground coverings that prevent water infiltrating through to the roots.

These problems can be easily avoided by using the CORE TRP system with a porous or permeable wearing course. The two combined promote both water infiltration and gaseous exchange.



1. **CORE TRP 30 Membrane** - 350g/m<sup>2</sup> non-woven geotextile membrane prevents the granular infill material from migrating into the subsoil due to its high puncture resistance. It also filters out four times as many hydrocarbons compared to standard geotextiles and allows water infiltration at a significantly higher rate.

2. **CORE TRP Geogrid** - provides additional 2-dimensional planer reinforcement to the infill material within the cellular structure of the system as recommended by APN12. It also reinforces the TRP 30 membrane below, creating an even stronger separation barrier between the subsoil and the TRP infill material.

3. **CORE TRP Panel** - the geocellular confinement panel provides a 3-dimensional erosion barrier and structural bridge that ensures the loads placed upon it are laterally dissipated rather than transferred to the soil and roots below. The walls of the cells are perforated and textured, when combined with the clean infill material, enable free movement of water and oxygen, ensuring that nutrient supply to the tree roots are maintained.

The TRP panel should be filled with a SuDS compliant free draining subbase material such as CORE SubFlow20; a cohesive angular 4/20mm or 20/40mm mix that has been screened and washed to create a 'no fines' infill that remains porous even after compaction within the cellular structure.

4. **CORE TRP 10 Membrane** - 100g/m<sup>2</sup> non-woven geotextile separation membrane that serves two purposes. Firstly, it prevents migration of the bedding/laying course into the fill material and secondly, it protects the system from contamination from silt and pollutants.

5. **Permeable / Porous Wearing Course** - There are several options of permeable/porous wearing courses (diagrams shown on next pages).



# CORE TREE ROOT PROTECTION

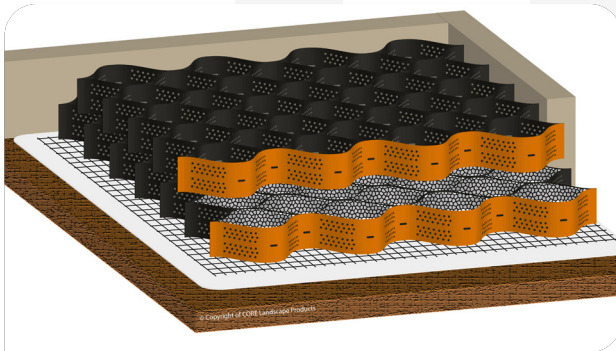
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### DESIGN FLEXIBILITY

As we all know, no two projects are identical. Conditions often vary and many site specific factors will need to be taken into consideration when designing a suitable tree root protection system.

One of the most common questions we are asked is; Can the CORE TRP panels be stacked if I need to raise ground levels? Yes, they can. The CORE TRP panels come in 5 different depths and can be stacked and combined to tailor the depth and meet each sites individual requirements.



CORE TRP Panels can be staggered & stacked.

This provides maximum flexibility when designing both temporary and permanent access.

Panels can be layered to cope with initial construction loadings and can be removed, once construction has finished, to leave a single layer of TRP panel in preparation for the final wearing course.

Edge restraints can also be tailored to project requirements. The selection process will often depend on the projects budget; suitability for the intended traffic load; and application.

Tanalised wooden edging is commonly specified as it is the most cost effective option. Sometimes a more substantial kerb is required: concrete kerbs, granite setts or heavy duty flexible steel edging (CORE EDGE) can all be used with the CORE TRP system. Concrete haunching can be installed to the perimeter cells of the TRP panels should it be required.

### FULL SYSTEM GUARANTEE

We can provide a full system guarantee that will cover the cost of up to £10,000 per tree.

### CPD SESSIONS & TRAINING

We are committed to providing industry leading training and sharing our extensive knowledge and experience of tree root protection systems. We have a CPD session solely focused on tree root protection and have received fantastic feedback from the Landscape Architects/Specifiers that we have shared it with.

### INSTALLATION & SUPERVISION

We also offer an unrivalled installation service across the UK. All of our contractors have a wealth of experience when it comes to tree root protection and surfacing.

If you are installing the system yourself and are looking for some guidance, we have a technical support team just a phone call away. We can even send one of our supervisors to oversee your install to give you peace of mind that it is being carried out correctly.

### NATIONWIDE INSTALLATION SERVICE AVAILABLE

All operatives and supervisors are NRSWA qualified and have extensive experience of tree root protection systems and surfacing.



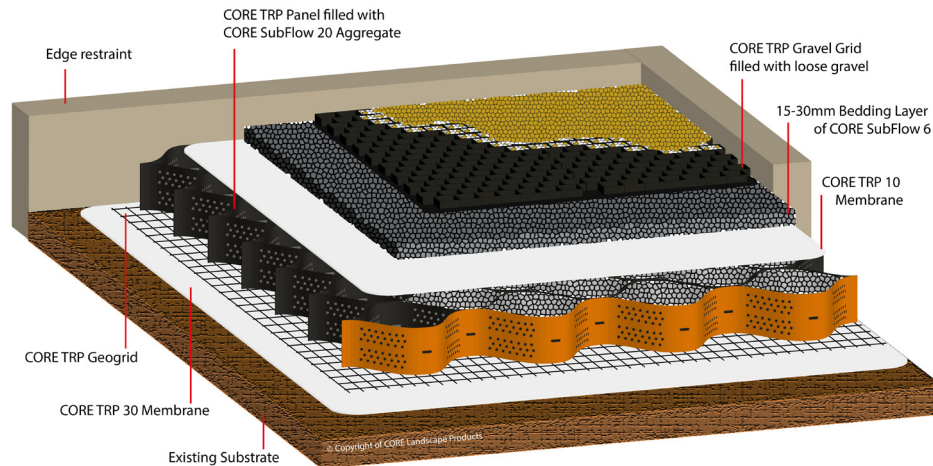


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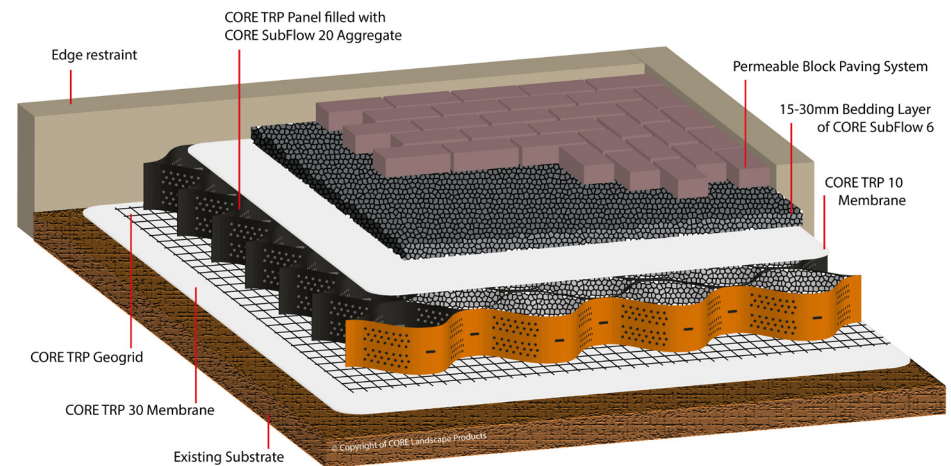
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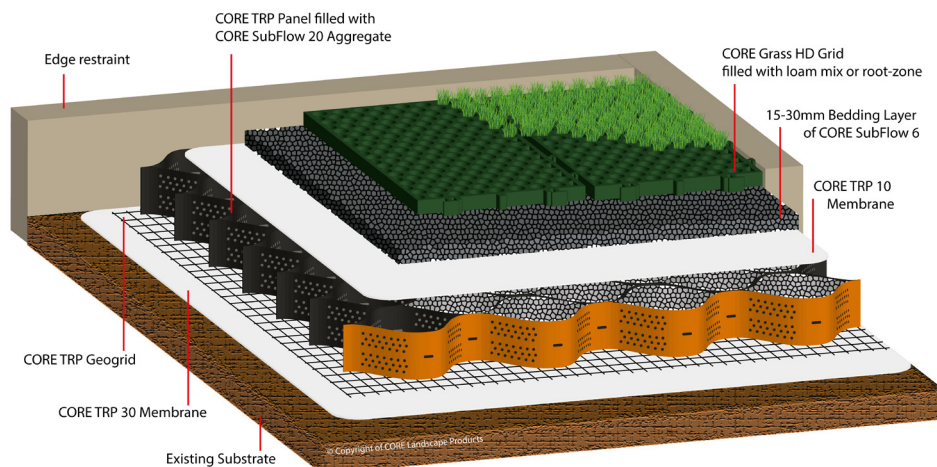
POROUS PAVER/GRAVEL GRID WEARING COURSE



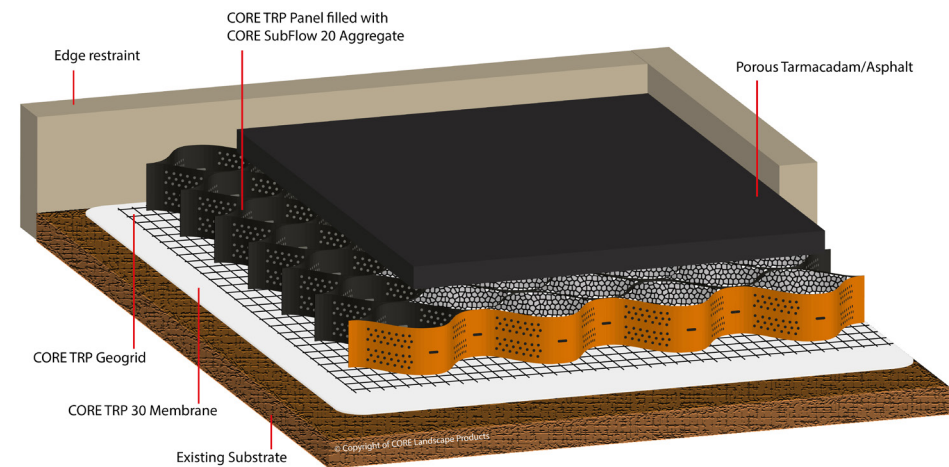
PERMEABLE BLOCK PAVING WEARING COURSE



GRASS REINFORCEMENT GRID WEARING COURSE



POROUS TARMACADAM WEARING COURSE





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### RESIN BOUND SURFACING

Resin bound paving is fast becoming the UK's first choice for permeable surfacing.

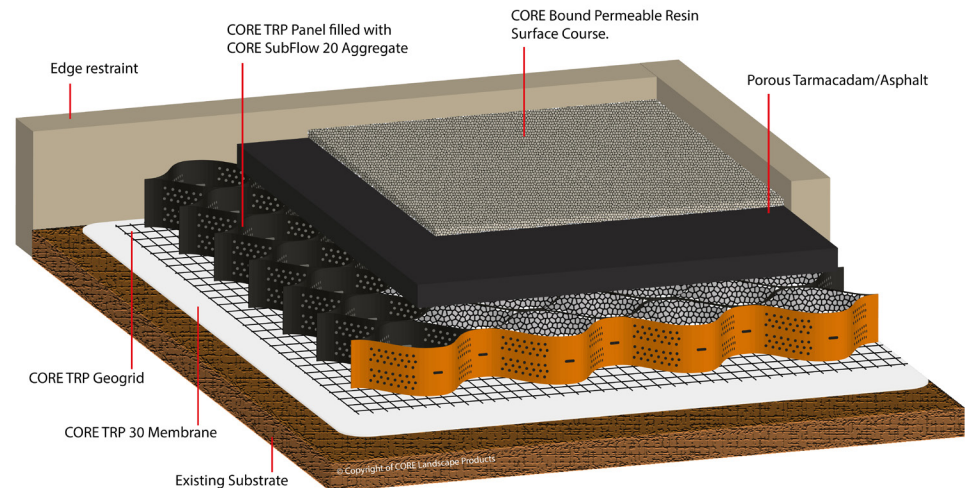
A porous resin bound layer can be installed over the porous asphalt wearing course to provide a unique and modern finish.

For areas where access is restricted and asphalt is not a viable option, the CORE TRP gravel grid can be used as the base layer for a resin bound surface course.

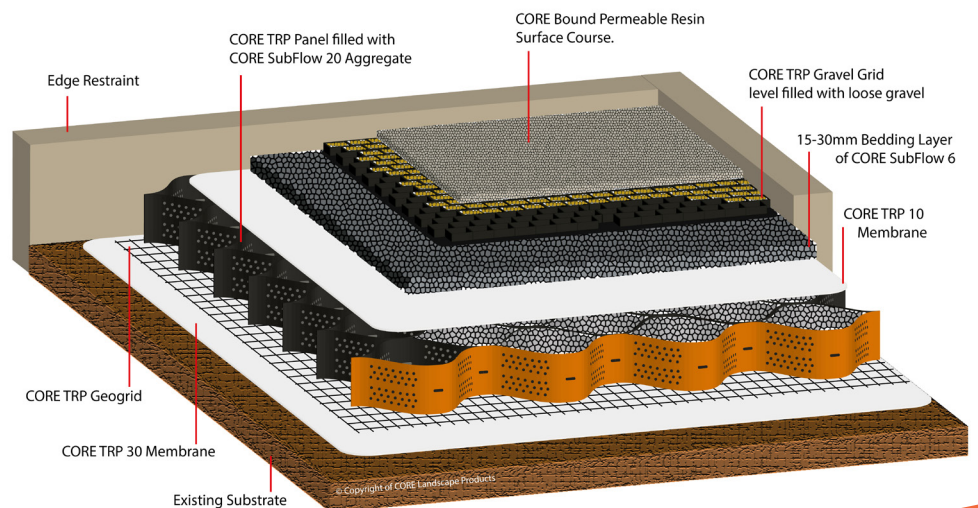
Level fill the cells of the gravel grid with a standard angular gravel, then lay the resin bound surface course as you would over a traditional asphalt or concrete base.



#### RESIN BOUND SURFACE OVER POROUS ASPHALT WEARING COURSE



#### RESIN BOUND SURFACE OVER GRAVEL GRID WEARING COURSE





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### TEMPORARY SITE ACCESS

It is often the case that the need for tree root protection is highlighted at the initial stages of project planning.

If the main access route to the site is hindered by the presence of mature trees, the local authority will want to be satisfied that sufficient protection measures have been put in place to minimise the impact the construction traffic will have on the protected trees well before any works commence.

The CORE TRP system can be installed to provide safe access for all types of construction traffic including heavy plant and cranes.

By installing a temporary wearing course which can be removed at the end of the construction phase you have the option to utilise the TRP system as a permanent subbase for your final wearing course once the heavy construction is complete.

Panels can be layered to cope with heavy construction loadings and can be removed once construction has finished, this sacrificial layer of TRP is the preferred option by arboriculturalist as it maintains maximum porosity and permeability when compared to alternatives such as metal road plates or wooden ground boards. The CORE TRP 10 membrane and temporary wearing course will prevent pollutants and silt from construction traffic contaminating the TRP system.

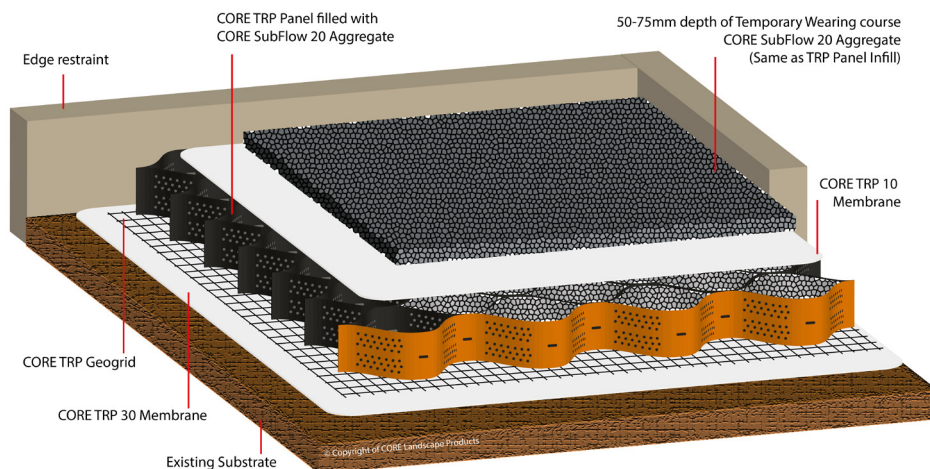
### RE-USING THE ACCESS

After removing the temporary wearing course and TRP 10 membrane, inspect the CORE SubFlow 20 infill material to ensure no contamination has taken place. If areas of contamination are found remove and replace with clean fill.

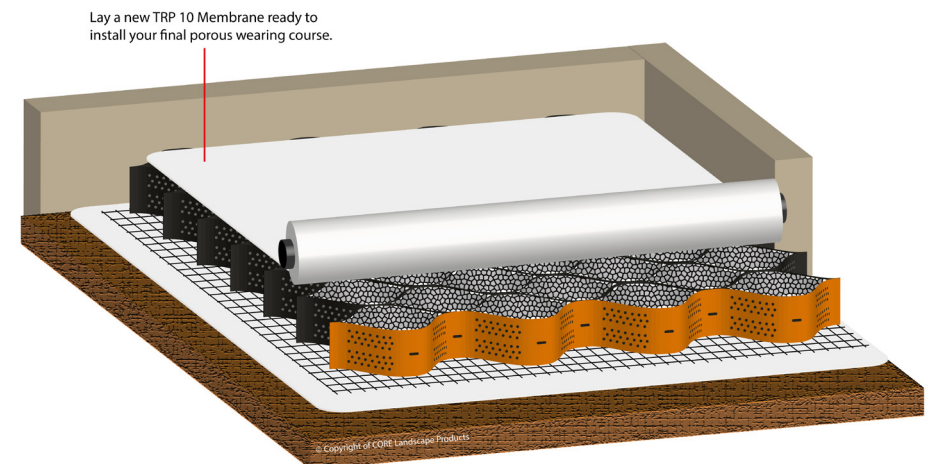
Next install a new layer of TRP 10 membrane followed by the specified build for your chosen wearing course.

(If laying porous asphalt, TRP 10 membrane is not required).

TEMPORARY SITE ACCESS CONSTRUCTION



RE-USING THE TEMPORARY SITE ACCESS





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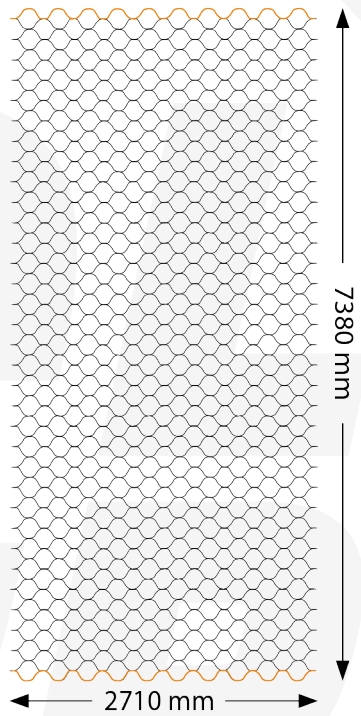
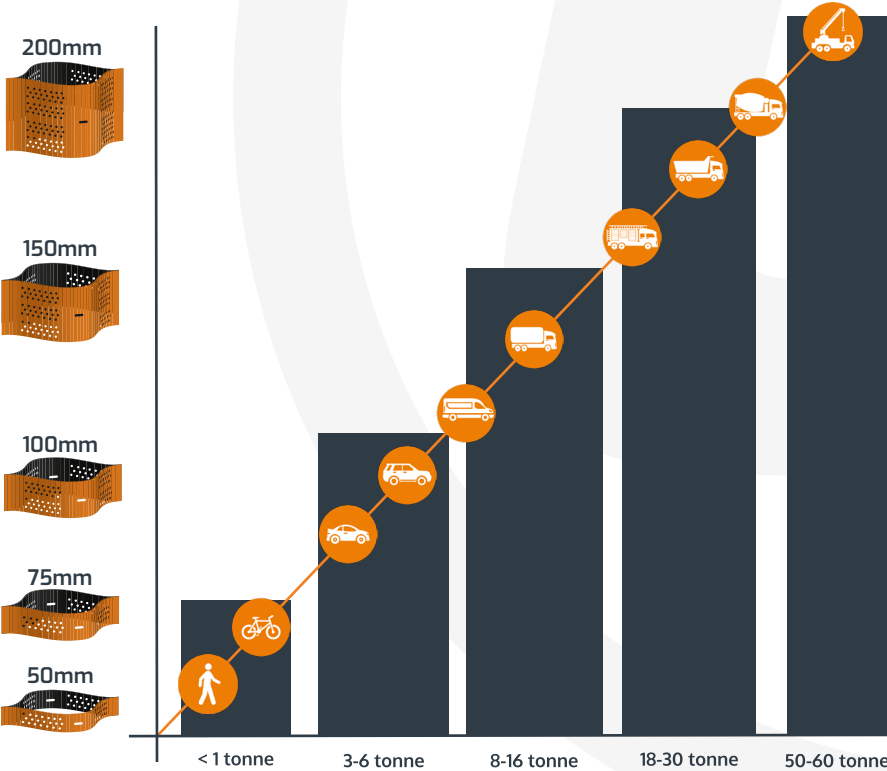


### DESIGN & SPECIFICATION

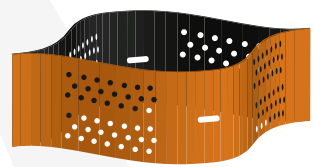
The chart below should be used as a guide for planning your tree root protection project. We always recommend you seek the advice from an arboriculturist or our technical support team with regards to your full requirements.

The guide has been based on a firm and stable subsoil condition with a CBR value of 3%.

Our TRP panels all come flat packed to make them easy to transport around site. The panels should always be fully expanded and then cut to size if required.

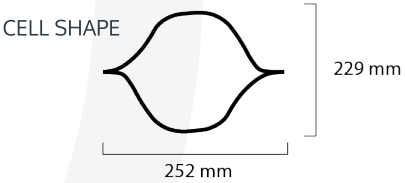


### CELL STRUCTURE



Perforations in the cell wall promote lateral drainage and gaseous exchange whilst the textured surface increases cohesion.

### CELL DIMENSIONS



### TECHNICAL DATA

Material	High Density Polyethylene (HDPE)
Cell Wall Thickness	1.5mm
Area Covered Per Panel	20m <sup>2</sup> (7380 x 2710mm)
Seam Weld Strength	1420kn Per 100mm
Tensile Strength	18.4 MPa / 19.5 MPa
Biological Resistance	Unaffected by algae & mould
Chemical Resistance	Excellent
Temperature Range	20°C TO 120°C

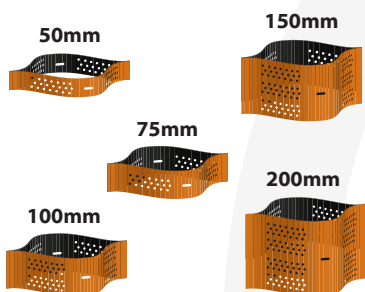


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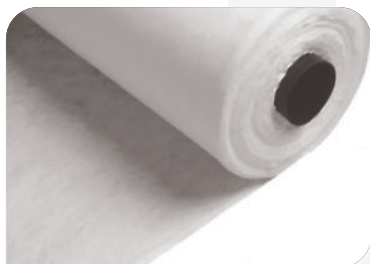
### MATERIALS LIST



Material	Virgin HDPE
Panel Size	20m2 (7380 x 2710mm)
Open Cill Dimensions	252 x 229mm
Depth	50/75/100/150/200mm
Panel Weights	12/18/24/46/48kg
Sold in Quantity	Individually



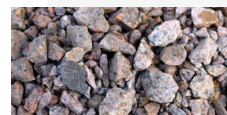
Material	Virgin HDPE
Thread Length	15mm
Nut Size	16mm
Bolt Head Type	Flat Screwdriver
Sold in Quantity	Packs of 100



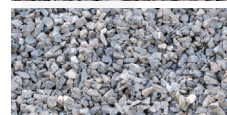
Membrane	TRP 10	TRP 30
Material	Non-Woven	Non-Woven
Weight	100g/m2	350g/m2
Full Roll	4 x 100m	2.4 x 50m
Half Roll	2.25 x 50m	2.4 x 25m



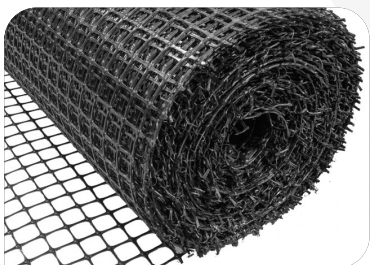
Material	Galvanised Steel
Length	500 / 750mm
Thickness	12mm Rebar
Sold In Quantity	Packs of 10



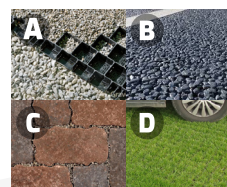
**CORE SubFlow20 or 40** - a 4-20mm or 20/40mm graded clean angular aggregate that has been washed to provide the ultimate 'reduced fines' fill material for SuDS compliance.



**CORE SubFlow6** - a 2-6mm hard clean grit used as the bedding/laying course for both gravel/grass grid and permeable block paving wearing courses.



Material	Virgin PP
Colour	Black
Tensile Strength	20, 30 or 40 kN/m2
Manufacturing Method	Punched & Drawn
Full Roll	4 x 50m (200m2)
Half Roll	2 x 50m (100m2)



**A | CORE TRP GRAVEL GRID**

**B | POROUS ASPHALT**

**C | PERMEABLE BLOCK PAVING**

**D | CORE GRASS GRID**



## Specification & Installation

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### FAQ's

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#### Q | WHAT CAN I DO TO LEVEL THE UNDULATING GROUND WITHIN THE ROOT PROTECTION AREA (RPA)?

A | TRP Panels require an evenly graded subbase layer, which can be made up to any high points with granular, permeable fills such as crushed stone (CORE SubFlow20 or 6), sharp sand or clean graded soil, dependant on depth of fill required.

#### Q | CAN I USE A STANDARD WEED MEMBRANE?

A | No, standard separation membranes do not have the adequate tensile strength required for tree root protection. A specialist TRP membrane should be used below the system, they have high tensile strength and help maintain water and gaseous exchange.

#### Q | WHY DO I NEED A TRP GEOGRID BELOW THE SYSTEM?

A | CORE TRP Geogrid is an additional 2-dimensional support layer that helps to distribute the traffic load further, preventing the fill material within the cells from prematurely wearing the specialist TRP membrane when exposed to extremely heavy traffic loads.

#### Q | WHAT AGGREGATE SHOULD BE USED TO FILL THE TRP PANELS WITH?

A | The fill material is one of the most important elements of the TRP system. The TRP Panel should be filled with a SuDS compliant free draining subbase material such as CORE SubFlow20 or SubFlow40 (a cohesive angular 4/20mm or 20/40mm mix that has been screened and washed to create a 'no fines' infill that remains porous even after compaction within the cellular structure).

#### Q | WHICH DEPTH OF CORE TRP PANEL SHOULD I BE USING ON MY PROJECT?

A | The depth of TRP panel required depends on the intended traffic loads. The heavier the traffic or softer the subsoil, the deeper the panel will need to be to sufficiently distribute the load.

#### Q | HOW CLOSE TO A TREE CAN I GO WITH THE CORE TRP SYSTEM?

A | BS 5837 recommends a minimum distance of 500mm between new surfacing and buttress roots. There may be scope for flexibility in this separation for mature trees with little potential for future growth, if agreed by the supervising arboriculturist.



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### INSTALL GUIDE

The following guide is designed to be an overview of the installation process.

As you can appreciate, site conditions will often vary so please seek expert advice or call our technical support team if you have questions that have not been covered in the install guide or the FAQs. Our team will also be happy to visit your site if you require any site specific guidance.

#### Step 1 - Prepare existing subsoil

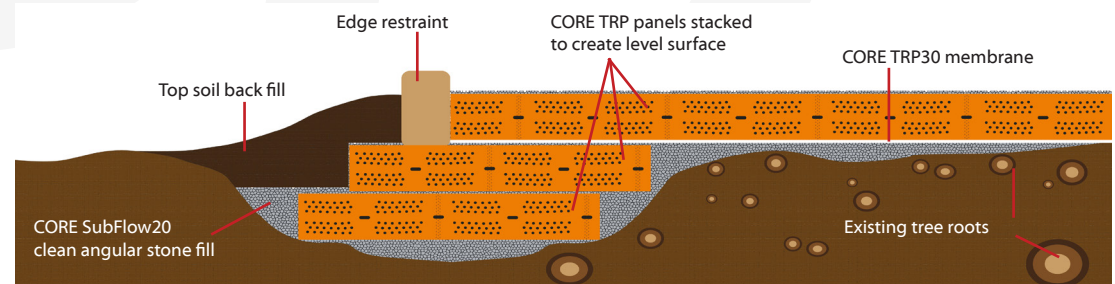


1. For most projects, the removal of up to 50mm of leaf litter and surface vegetation is appropriate but if there are obvious surface roots, or if the soil layer is shallow, it may not be appropriate to remove any surface material at all. Cover any exposed tree roots using a suitable fill material. If large roots pretrude above ground the entire surface level may need to be adjusted. Please consult your supervising arboriculturist.

Fill any dips and undulations with a clean granular permeable fill material to bring the surface level in line with existing high spots. Do not remove any high spots and do not use mechanical compaction equipment to compact the fill material or surrounding soil.

The design should not require excavation into the soil but if there are no obvious surface roots the turf layer or any other surface vegetation may be removed. A tracked excavator with a grading bucket is normally the best machine to use to remove the turf layer because this creates an even surface. for this application the excavator should be no more than 5 tonne.

If the existing subsoil level within the RPA is sloping or has large undulations it may be necessary to stack the TRP panels to create a level surface for the final wearing course. Filling large dips and bumps with unstabilised fill material is not advised.



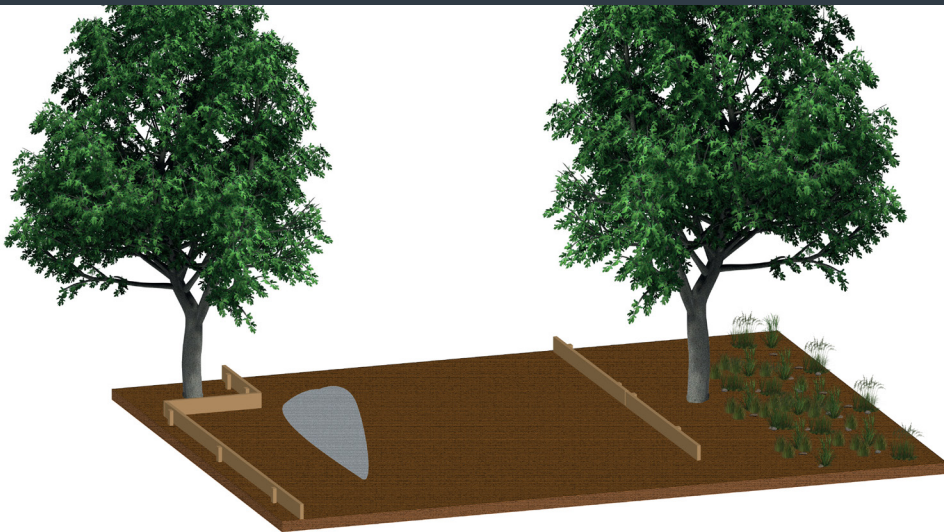
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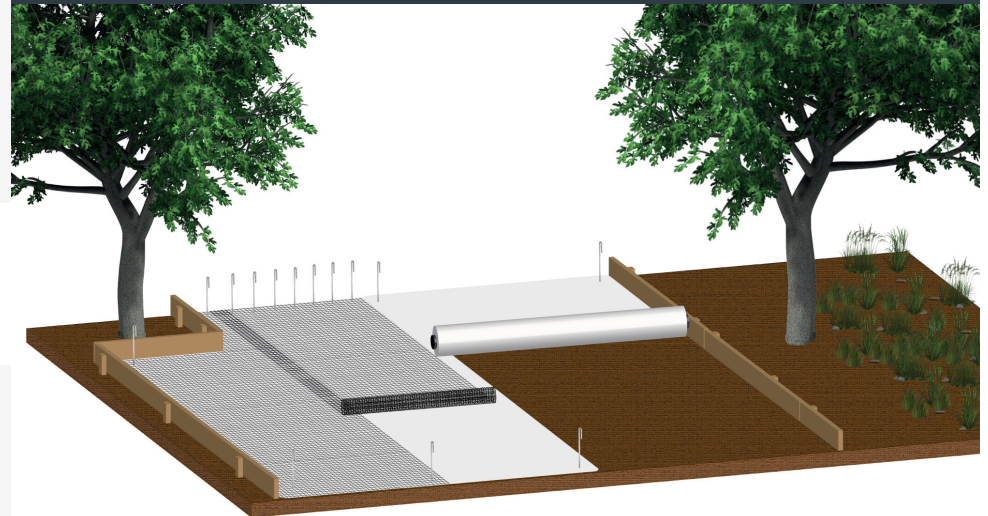
### INSTALL GUIDE

Step 2 - Install Edge Restraint



2. An edge restraint should be used around the perimeter of the TRP area. Tanalised timber and railway sleepers are the most commonly used edging for TRP systems. If a more substantial edging is required, concrete kerbs or path edgings can be used. Edgings for the wearing course are explained in greater detail in Step 7. In some cases, edge restraint may not be necessary. Contact our team for site specific advice.

Step 3 - Lay TRP Membrane



3. Once a generally level surface has been achieved, lay the TRP 30 membrane. Ensure there is a minimum 300mm overlap on any membrane joints. This may need to be more depending on soil structure. Seek advice from your aboriginal supervisor.

Pin the corners of the membrane to prevent it from moving. Pin the leading edge of TRP Geogrid and roll out over the membrane. Remove the pins from the membrane and re-insert, pinning the outer corners of the TRP Geogrid.

TRP Geogrid may be required subject to intended traffic load and soil structure. Seek advice from your aboriginal supervisor.



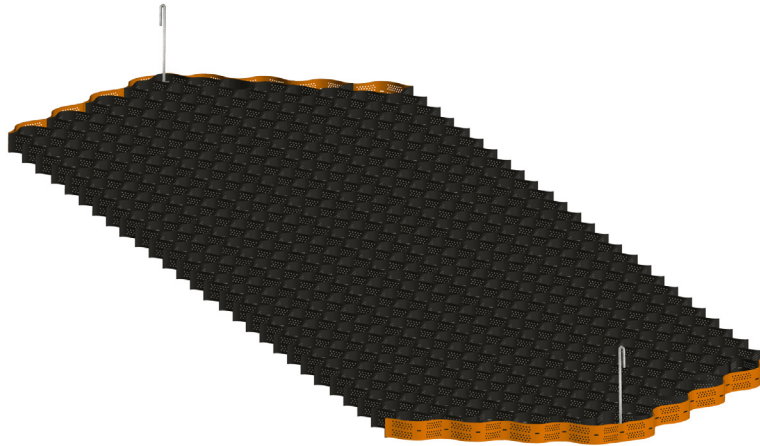
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### INSTALL GUIDE

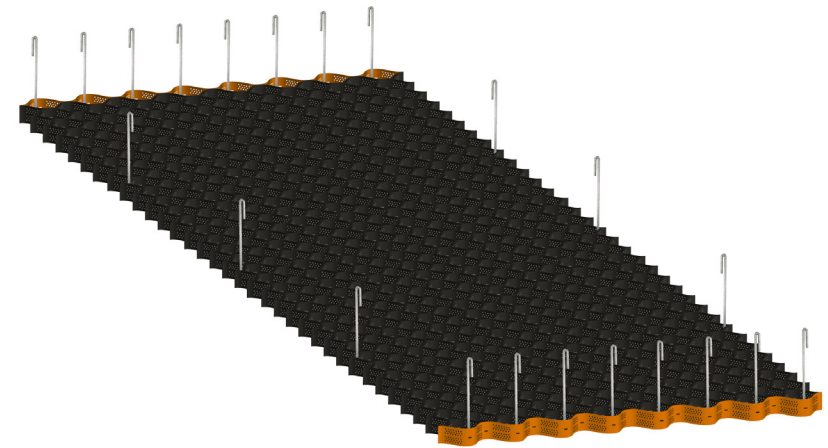
Step 4 - Expand Panels



4. Measure in 1355mm from the edge restraint (half the width of the panel).

Lay the collapsed CORE TRP panel and pin the centre cell closest to the end of the panel. Expand the panel to its full length (7380mm). Pin the centre cell at the opposite end.

Step 4a - Pin



4a. Now measure 2710mm (the full width of the panel) and pin out the four corners to produce a fully expanded panel 2710 x 7380mm. Pin the remaining cells along each 2710mm end and evenly space 3 pins down each 7380mm side.

This will produce a cell size of 229 x 252mm once fully expanded and under tension. Do not try to curve or bend the panel into place. Any curves should be cut from fully expanded panels and pinned accordingly.

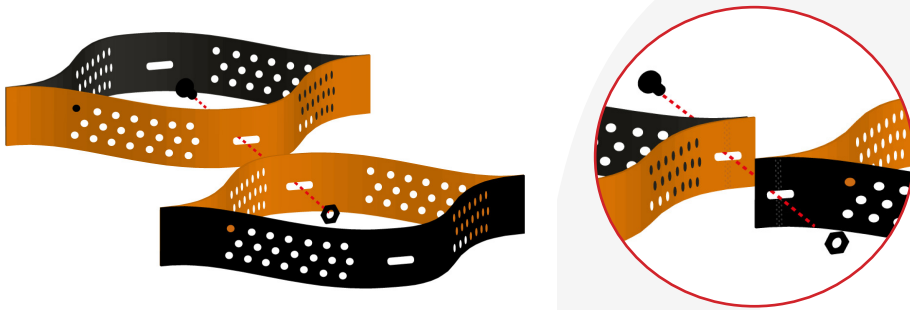
# CORE TREE ROOT PROTECTION

## Specification & Installation

**CORE**Landscape<sup>®</sup>  
Products

### INSTALL GUIDE

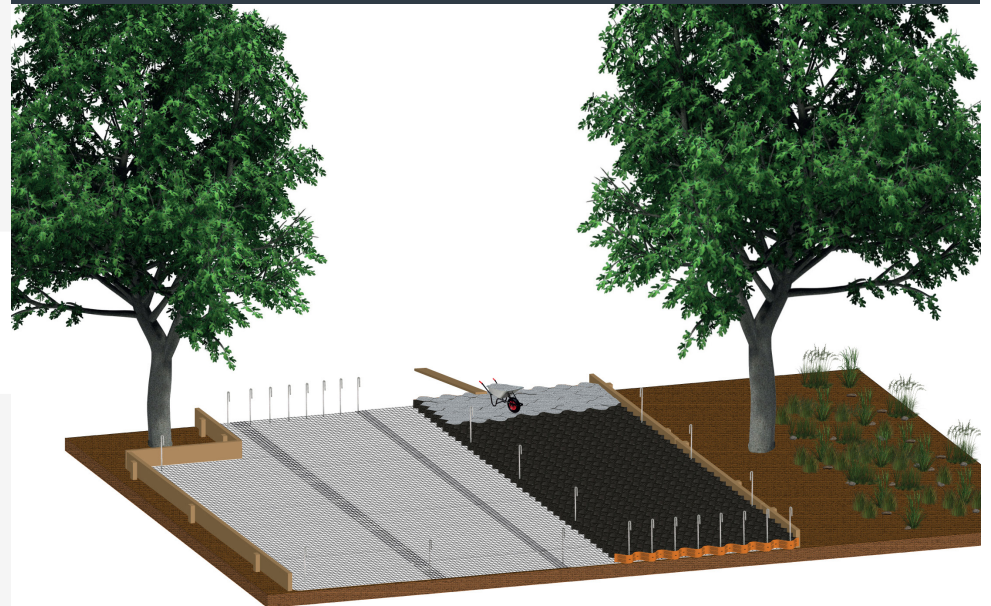
#### STEP 5 - Connecting Panels



5. When connecting ends of adjacent panels, align the elongated holes in the centre of the cell walls. Insert the stud through the holes in both panels and attach the securing nut.

5a. When connecting two panels side-on, align the elongated holes in the centre of the seam welds and insert connecting stud as before.

#### STEP 6 - Filling Panels



6. Starting at one end, begin to fill the cells progressively using CORE SubFlow20 or SubFlow40 clean angular 4/20 - 20/40mm cohesive stone. Limit the drop height to less than 1m to avoid collapsing unfilled cells. On adjoining edges stay a minimum of 2 cells away from the edge of the panel to allow for ease of connection.

Once you have completed an area, you can bring vehicles or plant onto the filled cells using a ramp to continue filling. Ensure to fill the complete width of the panel.

- Do not drive or walk on unfilled cells to avoid damage.
- Flint gravel is not an acceptable fill material as it does not have the cohesive properties required.
- MOT TYPE 1 or crushed stone should also be avoided as they have a high fines content.
- 3 passes with a non-vibrating roller is the best method of slight compaction for the infill material.



**Scan to Read  
the AGN 12 Document**

Author: Ben Rose  
Diagrams provided by CORE LP



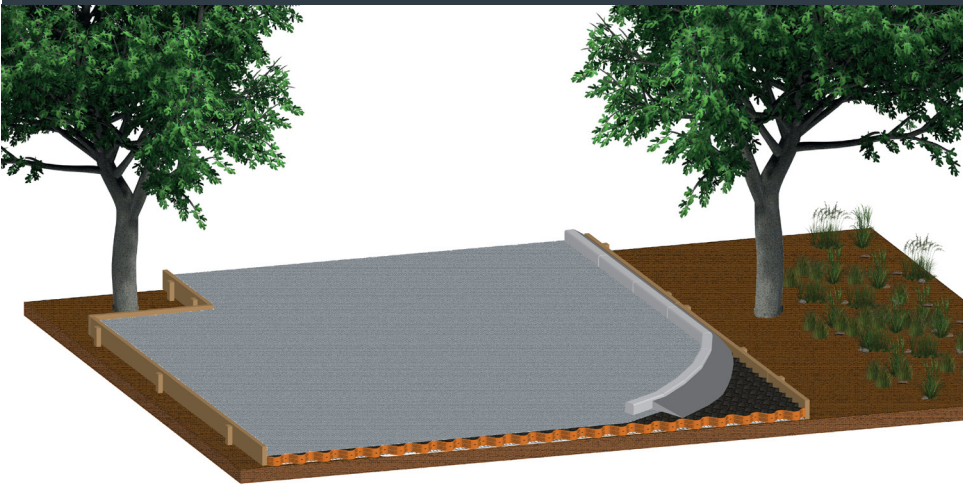
# CORE TREE ROOT PROTECTION

## Specification & Installation

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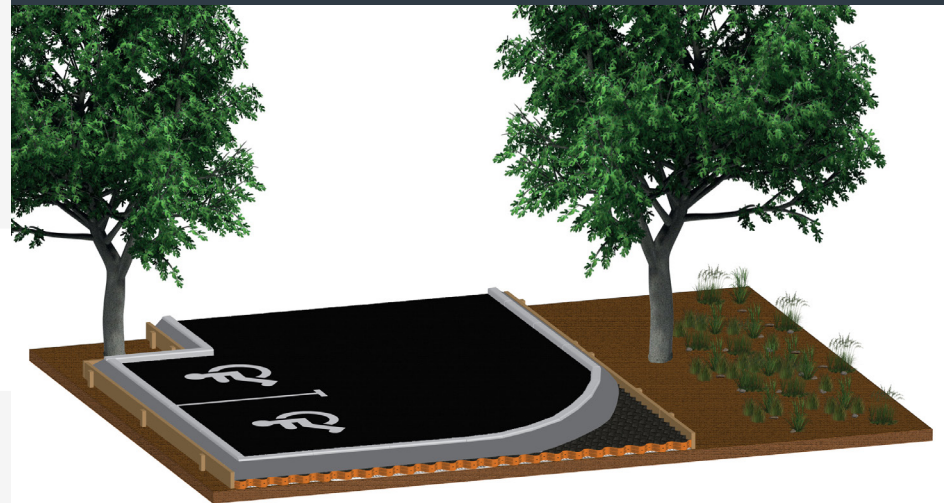
### INSTALL GUIDE

Step 7 - Edging for wearing course



7. If the edging you installed in Step 2 is not the correct height or a different edging detail has been specified such as a granite sett or concrete kerb, this can be installed on top of the CORE TRP panel. The concrete haunching can go inside the cells of the TRP panel and on top to create an extremely strong and robust edge.

Step 8 - Surfacing Options



8. The wearing course over the TRP panel must be porous. There are several options including; porous asphalt, permeable block paving; porous gravel or grass grids; resin bound; and rubbercrumb surfacing.

# CORE TREE ROOT PROTECTION

## CASE STUDY #1

**CORE**Landscape<sup>®</sup>  
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PROJECT LOCATION | EAST SUSSEX

CONTRACTOR | SH GROUNDWORKS

CLIENT | HOMEOWNER

PROJECT SIZE | 220m<sup>2</sup>

DEPTH OF TRP | 100mm

WEARING COURSE | CORE TRP GRID

### PROJECT BRIEF | CREATE A NEW ACCESS WAY THROUGH AN EXISTING ROOT PROTECTION AREA.

The client had built a new dwelling at the rear of the existing property. The new access cut across the path of two mature trees that were both subject to TPOs.

The arboriculturalist had requested that the access had to be constructed in strict accordance with Arboricultural Guidance Note 12 (AGN12) - The 'No Dig' solution.



### PRACTICAL SOLUTION | INSTALL THE CORE TRP SYSTEM TO PREVENT ANY DAMAGE TO TREES.

CORE provided guidance and advice to the main contractors on the 'No Dig' solution required and specified the depth of TRP panel producing a materials list to make it easier for the contractors.

CORE guided them through the process whilst liaising with the arboriculturalist to ensure the system was to his satisfaction



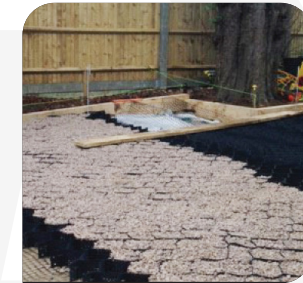
### PRACTICAL SOLUTION | CONTINUED...

CORE provided additional assistance when it came to installing the TRP system.

One of the experienced technical support team members had a call with the contractor to fully explain the process and the necessary build up.

Once the TRP system had been laid, levelled and compacted, a TRP 10 membrane was installed. A bedding layer of CORE SubFlow6 aggregate was next, followed by a CORE TRP Gravel Grid wearing course and finally a 10mm silver granite infill.

The main contractors had used a gravel stabiliser system before but commented on how easy the CORE TRP Gravel Grid panels were to lay.



### OUTCOME | SUCCESSFUL INSTALL AND BOTH CONTRACTOR AND HOMEOWNER WERE PLEASED WITH THE RESULT.

All parties involved were impressed with the performance of the system overall and the main contractors commented on the high level of support provided by CORE throughout the project.





# CORE TREE ROOT PROTECTION

## CASE STUDY #2

**CORE**Landscape<sup>®</sup>  
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PROJECT LOCATION | **BERKSHIRE**

CONTRACTOR | **CORE LC**

CLIENT | **Ha Meem Foundation**

PROJECT SIZE | **350m<sup>2</sup>**

DEPTH OF TRP | **150mm, 100mm**

WEARING COURSE | **CORE TRP GRID**



### PROJECT BRIEF | **CREATE A STAFF CAR PARKING AREA NEAR MATURE TREES.**

The client was an all girls school based in Berkshire. Our brief was to create a car park for staff - but the area had mature trees with TPO's nearby. The arboriculturalist instructed that any construction to the area had to be carried out within the Arboricultural Guidance Note 12 (AGN12) - which meant CORE TRP had to be installed.



### PRACTICAL SOLUTION | **INSTALL THE CORE TRP SYSTEM TO PREVENT ANY DAMAGE TO TREES ROOTS FROM DAILY USE OF CAR PARK**

CORE LC, the contracting arm of the business, excavated and laid the subbase, membrane, CORE TRP then filled the panels. Final wearing course was the CORE TRP gravel grid that was filled with a 10mm angular aggregate.



### OUTCOME | **A LONG LASTING STAFF PARKING AREA THAT WILL BE ABLE TO TOLERATE DAILY USE FOR MANY YEARS TO COME.**

The school were extremely pleased with the finished parking area and level of expertise and support provided at each stage by CORE LC.

Work carried out by **CORE Landscape Contractors**



### EXTRA | **2 LEVELS**

Due to the access into the school building, 2 depths of TRP panel were used. The 150mm and the 100mm panel were installed together to allow for the build to seamlessly reach access points to the building - this ensured the entire area looked the same and ensured a clean finish.





# CORE TREE ROOT PROTECTION

## CASE STUDY #3

**CORE**Landscape®  
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PROJECT LOCATION | **CARDIFF**

CONTRACTOR | **HORAN CONSTRUCTION**

CLIENT | **CARDIFF COUNCIL**

PROJECT SIZE | **8500m2+**

DEPTH OF TRP | **100mm**

WEARING COURSE | **MACADAM**

### PROJECT BRIEF | **PROTECT MATURE TREES FOR A NEW CYCLEWAY IN CARDIFF CITY CENTRE**

Cardiff council planned the expansion of their cycleways throughout the city to alleviate car traffic and promote a more active way to travel. This part of the project spanned from Excelsior Road into the City Centre.



### PRACTICAL SOLUTION | **INSTALL THE CORE TRP SYSTEM TO PREVENT ANY DAMAGE TO TREES.**

After liaising with the contractors, we provided assistance and guidance on which depth of TRP panel would be necessary for the level of traffic that the cycleway would receive. The 100mm depth is the ideal choice for pedestrians and bicycles - so this was chosen.



### PRACTICAL SOLUTION | **CONTINUED...**

After the TRP panels were installed - the final wearing course was a porous macadam. Macadam was chosen due to its hard wearing qualities and smooth finish that is especially required for a cycle path that will be used daily.



### OUTCOME | **MAJOR SUCCESS - CYCLEWAY WAS COMPLETED AND NOW FREQUENTLY USED BY CARDIFF POPULATION**

Cardiff Council and Horan Construction were both impressed by the system and the effectiveness of it as a No Dig Solution - further commenting on how easy it was to install.





# CORE TREE ROOT PROTECTION

## CASE STUDY #4

**CORE**Landscape<sup>®</sup>  
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PROJECT LOCATION | **CARDIFF**

CONTRACTOR | **HORAN CONSTRUCTION**

CLIENT | **CARDIFF COUNCIL**

PROJECT SIZE | **8000m2+**

DEPTH OF TRP | **100mm**

WEARING COURSE | **MACADAM**



### PROJECT BRIEF | **PROVIDE ROOT PROTECTION FOR MATURE TREES IN SOPHIA GARDENS**

CORE LP and Horan Construction liased once again for the continuation of Cardiffs Cycle Superhighway scheme. The city council planned and executed 5 cycleways to integrate major destinations throughout the city - this route was a cycleway through one of the cities most stunning natural parks.

### PRACTICAL SOLUTION | **INSTALL TRP SYSTEM TO PROVIDE PROTECTION AND FOUNDATION FOR CYCLEWAY**

We provided guidance to the contractors and suggested which depth of panel to use. The 100mm was selected - the ideal depth for pedestrian and cycle traffic.



### OUTCOME | **CYCLEWAY COMPLETED AND USED DAILY**

The outcome was a seamless installation that provided the perfect above ground subbase that will provide suitable protection for Sophia Gardens incredible trees for many years to come.



### PRACTICAL SOLUTION | **CONTINUED...**

The final wearing course after the TRP panels were installed was a porous macadam. As previously mentioned on the earlier stage of this cycleway scheme, macadam is the perfect surface for bicycle traffic and requires minimal maintenance from the city council once installed.



# CORE TREE ROOT PROTECTION WARRANTY

**CORE**Landscape®  
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## WARRANTY

With the CORE Tree Root Protection (TRP) system you are using tried and tested tree root protection of the highest quality that outperforms competitors, offering total peace of mind. Top quality raw materials and intuitive design ensure the roots of the trees you want to protect will not be damaged by traffic or footfall.

By simply following our recommendations and adopting industry standard installation practices, you can rest assured you are not only choosing the best possible system, but also getting the best value for money.

With CORE TRP you have the option of obtaining a comprehensive written guarantee for an additional fee. The CORE TRP system is one of the few systems available in today's market with this option. Independently tested, it offers unrivalled protection for your tree roots, and has been used throughout the world for years without failure.

## COMPLETE CONTROL

We prefer to offer you the option of paying for the written guarantee for your CORE TRP system purely due to the fact that in our experience not everyone requires a guarantee - so this allows us to offer you the best possible price for your CORE TRP system.

We will specify and quote your requirements using exactly the same great product with or without the warranty. We will then advise you on the cost of the optional warranty, if you require one. Either way the protection the roots receive is the same, so you have the option of how you spend your resources.

With expert guidance from our arboriculturalists and design engineers, CORE TRP gives our customers the assurance that specific site requirements and design criteria will be achieved.

The optional warranty covers the replacement of not only the CORE TRP system but also the tree(s), giving the customer complete peace of mind. Our engineers will offer site specific technical recommendations to help you obtain the best results for the best possible price.

## FAQ's

**What is covered under the warranty?** | The guarantee covers the replacement of dead tree(s) within the protected area, up to a value of £10,000.00. The guarantee also covers the replacement of the CORE TRP system which has failed up to the value of £50,000.00. The guarantee is valid for 10 years from date of invoice.

**How to make a claim for loss of a tree?** | In the unlikely event that a tree dies within the 10 year guarantee period, you will need to notify us as soon as discovered. We will carry out a full investigation into the actual cause of death. Once our investigation has identified the cause we will establish what remedial action is required.

**How to make a claim for material failure?** | In the unlikely event that your CORE TRP system fails within the 10 year guarantee period, you will need to notify us as soon as discovered. We will carry out a full investigation into the actual cause of failure. Once our investigation has identified the cause we will establish what remedial action is required.

**Can I alter the CORE TRP system?** | The system is created and designed using only high quality raw materials that outperform many of our competitors. This manufacturing process creates a truly unique system. Our installation guides and technical recommendations ensure the complete success of the project therefore we can only offer the warranty if the full system has been installed with no alterations, additions or omissions.



# CORE TREE ROOT PROTECTION WARRANTY

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**CORE**Landscape®  
Products

## WARRANTY

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**Can I pass the warranty on?** | Yes, the warranty is owned by the landowner. This can be transferred should the ownership of the land change, provided we are given notice of the transfer.

## HOW TO OBTAIN A WARRANTY

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**Site Survey** | Provide us with a copy of the Arboricultural Report for the site. [If a report hasn't already been produced, we would advise approaching an Arboricultural Association registered consultant to have a full survey completed].

**Technical Recommendation** | We can offer all of our clients engineering advice and services. On all guaranteed projects, we provide full technical recommendations and calculations.

**Site Survey Scope Agreement** | Once we have received the arboricultural report and produced our technical recommendation, we will advise on which trees can be covered under the warranty using a scoping agreement. We will then advise on the cost of the warranty.

**Straight Forward Installation** | By following our installation guide and technical recommendations the works should be carried out adhering to basic industry guidelines. Once completed, the customer signs, agreeing to the terms and conditions of the warranty.

**Certification** | Once your signed agreement is received by us, we will send out a pack containing your guarantee certificate with full details of your purchase.

**CORE***Landscape<sup>®</sup>*  
*Products*

Creating **beautiful** spaces

#BuildWithCORE

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