



ARBORICULTURAL IMPACT ASSESSMENT AND METHOD STATEMENT

**108, Lovedean Lane
Waterlooville
Hampshire
PO8 9SN**

Client:
Ashdown
(Hampshire) Ltd
Builders
57 Murray Road
Horndean
Waterlooville
Hampshire
Po8 9JQ

**Arboricultural
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John Parrington
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Hampshire
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Architect:
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Associates
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Hampshire
PO5 2PT

Survey Date:
26th November 2010

Weather:
Dry, sunny and cold.

Date Report issued:
15th December 2010

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TREE PROTECTION BARRIERS
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 ROOT PROTECTION ZONE
 CONSTRUCTION OF DRIVEWAY UNDER THE CANOPY OF TREES
 NETPAVE ROOT PROTECTION
 CELLWEB ROOT PROTECTION

SUMMARY

The development proposal is to construct two new buildings on the site at 108, Lovedean Lane, Waterlooville, Hampshire, PO8 9SN. The site will be divided into two plots, plot A to the front and plot B to the rear, each with its own property on.

The following arboricultural Impact statement is the result of this detailed consultation and has evolved taking full account of all constraints.

If adequate precautions to protect the remaining trees are specified and implemented through a sound arboricultural method statement, there should be **NO** adverse impact through construction activity on the protected trees.

All the trees are to be retained and protected, these are:-

- | | |
|---------------------------------------|---|
| (T001)
ASH
(Fraxinus excelsior) | Neighbour's tree, standing behind the fence at the front. |
| (T002)
ASH
(Fraxinus excelsior) | Standing in the north east corner of the building plot.
6 metres from the rear boundary hedge. |
| (T003)
ASH
(Fraxinus excelsior) | Neighbour's tree standing on the south eastern boundary
in the hedge line at the back of the property. |
| (T004)
ASH
(Fraxinus excelsior) | Neighbour's tree standing on the south eastern boundary
in the hedge line at the back of the property. |
| (T005)
ASH
(Fraxinus excelsior) | Neighbour's tree standing on the south eastern boundary
in the hedge line at the back of the property. |
| (T006)
ASH
(Fraxinus excelsior) | Neighbour's tree standing on the south eastern boundary
in the hedge line at the back of the property. |
| (T007)
ASH
(Fraxinus excelsior) | Neighbour's tree standing on the south eastern boundary
in the hedge line at the back of the property. |

T001 is standing in the front garden of the neighbour's property. It is in good condition and has surgery work carried out in the past to keep it in good order. T001 is fairly close to the north western corner of the proposed building in plot A. Therefore I would recommend using a pile and beam construction on that corner of the new build.

T002 is standing in the rear garden (plot B) and is far enough away from any proposed buildings to cause concern, but will still need protective fencing.

T004-T007 stands as a group in the neighbour's garden. They are in poor condition with limited individual merit but have some value as a group. They all require some remedial tree surgery to improve their condition and health.

T007 is closest to the corner of the proposed building on plot B. With this in mind I recommend using a pile and beam construction on the south eastern corner of the proposed building.

Before commencement of any demolition or building work, the trees should be protected with Heras fencing supported with scaffold as illustrated in the appendix.

Also a 50mm Net Pave ground protection (illustrated in the appendix) should be laid to protect the root systems of T001 and the group T003-7 where indicated in orange on our site plan.

Warning signs to BS5837:05 standards should be placed along the fencing.

No demolition or building work should take place until protective fencing and ground protection is in place and checked by the relevant authority or consultant Arborist.

A designated storage area as indicated on the site plan (page 7) will be used for storing materials.

Any aggregate used close to the trees should be land based and not from the sea as the salt extract will harm the trees. All cement mixer slops should be retained in a trough.

Method Statement

Sequence of Operations

1. Pre-commencement site visit

Before commencement of any demolition or construction on site a meeting **MUST** be arranged between the Test Valley Borough Council's Arborist, Enviro Plant, Builder, Developer or Agent. If a council representative is not present, the arboricultural consultant **MUST** inform the council in writing of the details of the meeting.

2. Tree surgery

Carry out all necessary tree surgery to existing trees.

3. Ground and root protection

The ground protection is shown by orange hashed lines and the root protection area (RPA) is shown by a blue dashed line on our site plan and will form the exclusion zone within the barrier. This will ensure the roots are not physically damaged or the soil compacted.

4. Fencing

Install tree protection fencing to BS5837:2005 as shown on the site plan by a red dashed line to create a construction exclusion zone. This will be erected before **ANY** demolition or construction is commenced. This will need to be checked by the relevant authority or consultant Arborist.

5. Demolition/Construction of buildings

Demolition and construction **WILL NOT** require access to the exclusion zone.

6. Installation of services

Any underground services installed **WILL NOT** occur within the protection or exclusion zones.

7. Installation of drive

The driveway surface laid within the protection zone must be carried out in accordance with principals shown in the appendix "Construction of a Driveway Under The Canopy Of Trees." This will ensure roots are not physically damaged or the soil compacted, restricting air flow (one of the most common causes of root death). The surface will be adequately porous to allow moisture through.

8. Removal of fencing

Once all the development is complete (including fitting out of the building) the protective tree protection fencing can be removed.

General Precautions

Site storage

All site storage **MUST** be outside RPAs unless otherwise agreed with the council.
This can be seen on the site plan in pink.

Cement Mixing

All cement mixing **MUST** be outside RPAs unless otherwise agreed with the council.
Where there is a risk of water runoff into RPAs from cement mixing area, heavy duty plastic sheeting and sandbags **MUST** be used to contain spillages and prevent contamination. No cement or concrete mixes to be transported over unprotected ground within 10 metres of the trunk of any remaining tree.

Fires

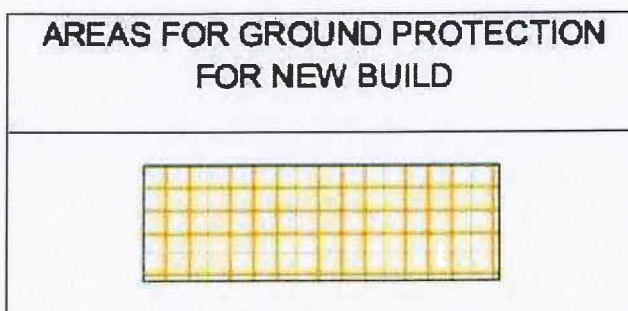
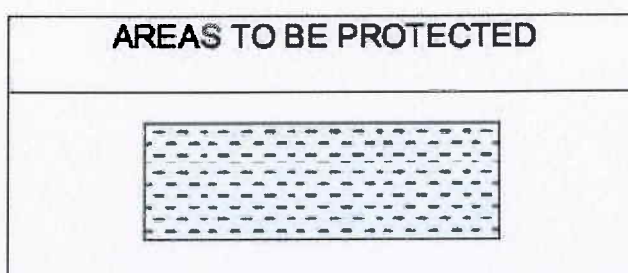
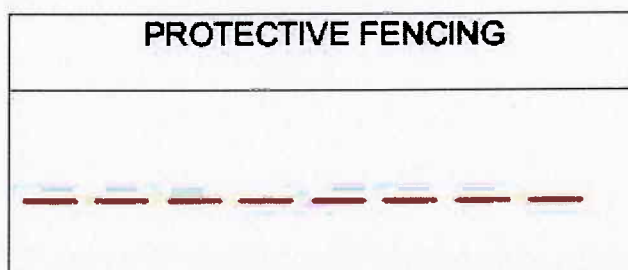
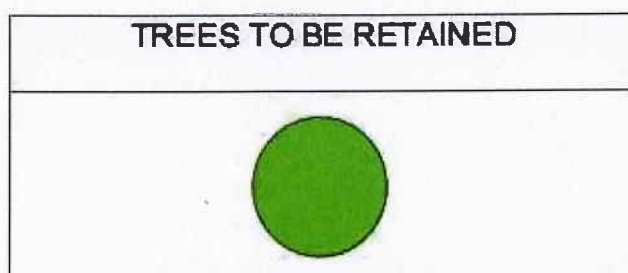
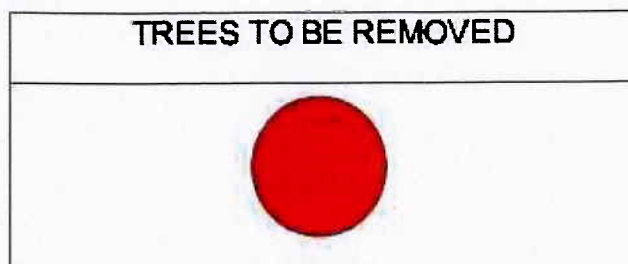
Fires are not to be lit on site unless otherwise agreed by the council and NO fires must be lit within 20 metres of any tree trunk which is to remain.

Note: It is the **developer's responsibility** to ensure that the details of this arboricultural method statement are known and understood by all site personnel. A copy **MUST** be kept on site at all times and the site manager must brief all personnel who could have an impact on trees on the specific tree protection requirements. This **MUST** be part of the site induction procedures and written into appropriate site management documents. The developer **MUST** instruct an arboricultural consultant to comply with the supervision requirements set out in this document before any work begins on site.

Relevant/further information

British Standard BS5837:2005 "Trees in Relation to Construction –
Recommendations"

KEY CODES FOR SITE PLAN



SITE PLAN

SECTION 1.00

1.00
1.01
1.02
1.03
1.04

SECTION 2.00

SCHEDULE NOTES

TREE REMOVAL

Trees that have a serious defect and their early loss are expected.

Trees that will become unviable when other trees around it are removed.

Trees that are dead or are showing signs of decline.

Trees infected with pathogens and are a threat to the health and safety of other trees nearby.

Trees that are of very low quality, suppressing adjacent trees of better quality.

CATEGORY R

Trees that are in such a condition that any existing value would be lost within 10 years.

In the current context, be removed for reasons of sound arboricultural management.

TREES TO BE CONSIDERED FOR RETENTION

1. Trees that are particularly good examples of their species, especially if rare or are unusual.

Trees that are essential components of groups, or formal or semi-formal feature

2. Trees, groups or woodlands that provide a definite screening or softening effect to the locality in relation to views into or out of the site. Particular visual importance.

3. Trees, groups or woodland with conservation, historical, commemorative value.

Category A

Trees with high quality and value. Providing a substantial contribution with a minimum of 40 years life.

TREES TO BE CONSIDERED FOR RETENTION

1. Trees that are of impaired condition. Presence of defects badly cut in the past and minor storm damage.

2. Trees present in groups that form distinctive landscape features, but are not individually of essential value. Trees of moderate quality within an avenue with include category A specimens. Trees that are situated internally on a site, therefore individually having little visual impact on the wider locality.

3. Trees with clearly identifiable conservation or other cultural benefits.

Category B

Trees with moderate quality and value, providing a substantial contribution with a minimum of 20 years life.

TREES TO BE CONSIDERED FOR RETENTION

1. Trees that do not qualify in higher categories.

2. Trees present in groups or woodlands but not of great landscape value. Trees offering low or only temporary screen benefit.

3. Trees with very limited conservation or other cultural benefits.

Category C

Trees of low quality and value with a minimum of 10 years life.

Trees not retained, where imposing a significant constraint on development, young trees with a stem diameter less than 150 mm should be considered for relocation.

TREES' AGE IS CATEGORISED AS:-

- Y Young
- SM Semi Mature
- M Mature
- OM Over Mature
- V Veteran

PHYSIOLOGICAL CONDITION:-

- G Good
- F Fair
- P Poor
- VP Very poor
- N Normal Vigour
- L Low Vigour

:-

SCHEDULE: 108, LOVEDEAN LANE, WATERLOOVILLE, HAMPSHIRE, PO8 9SN.

Species	Height (m)	Canopy spread	Height of Crown clearance	Trunk Diameter at 1.5m (cm)	Distance From property	Physiological condition	RPA Radius	RPA Area	Minimum Barrier Distance (m)	Age	Est. Remaining years	Cat.	Structural Conditions & Observations	Recommendations
(T001) ASH (<i>Fraxinus excelsior</i>)	22	N 6 E 6 S 8 W 9	7	46	5 metres from neighbours property	G/N	5.5	96	4.9	M	20+	B2	Neighbour's tree, standing behind the fence at the front. Scrub growing underneath and along fence line.	Canopy Has been raised in the past and cut away from the property. Remove scrub along the fence line.
(T002) ASH (<i>Fraxinus excelsior</i>)	22	N 4 E 3 S 5 W 4	5	28		F/N	3.4	36	3.0	SM	20+	B2	Standing in the north east corner of the building plot. 6 metres from the rear boundary hedge. No problems at present	Monitor growth every 3-5 years by a professional tree surgeon.
(T003) ASH (<i>Fraxinus excelsior</i>)	24	N 4 E Supp S Supp W Supp	8	31		P/N	3.7	43	3.3	SM	10+	C2	Neighbour's tree standing on the south eastern boundary in the hedge line at the back of the property. Grown from stumps. Damaged in the storm of 1987. Poor trunk formation which has been cut in the past. Ivy clad. Chicken wire on trunk and dead wood present in the crown.	Neighbour's tree, with permission, reduce the crown.
(T004) ASH (<i>Fraxinus excelsior</i>)	24	N E S W		Both 29		P/N	3.5	38	3.1	M	10+	C2	Neighbour's tree standing on the south eastern boundary in the hedge line at the back of the property. Bifurcated at base. Four trunks removed in the past. Dead wood present in the crown. All growing from an old hedge line stump.	Neighbour's tree, with permission, reduce the crown.

All work on trees to be carried out to BS3998:1989 and BS5837:05 and to comply with the permission granted by the Local Authority
Sound Arboricultural practices should be followed at all times.

Species	Height (m)	Canopy spread	Height of Crown clearance	Trunk Diameter at 1.5m (cm)	Distance From property	Physiological condition	RPA Radius	RPA Area	Minimum Barrier Distance (m)	Age	Est. Remaining years	Cat.	Structural Conditions & Observations	Recommendations
(T005) ASH (Fraxinus excelsior)	22	N E S W		Both 23 at base.	3.9 metres from the corner of the proposed property.	PN	2.3	16	2.0	M	10+	C2	Neighbour's tree standing on the south eastern boundary in the hedge line at the back of the property. One limb suppressed growing to the south. Has been cut many times in the past and half the canopy removed. Ivy clad. Wire visible on trunk.	Neighbour's tree, with permission, reduce the crown.
(T006) ASH (Fraxinus excelsior)	24	N E S W	4 Supp 3 3	Both 28 at base.	2.4 metres from the proposed building.	PN	2.8	24	2.5	M	10+	C2	Neighbour's tree standing on the south eastern boundary in the hedge line at the back of the property. Grown from an old hedge line stump. At 1 metre there are four stems, one twisted and one very small. The larger stem is towards the plot, the last on the eastern side. Ivy clad and wire on trunk.	Neighbour's tree, with permission, reduce the crown.
(T007) ASH (Fraxinus excelsior)	24	N E S W	3 Supp 3 4	Largest 24	2 metres from the new plot.	PN	2.9	26	2.6	M	10+	C2	Neighbour's tree, standing on the southern boundary at the back of the property. Bifurcated at 0.75 metres. Grown from an old stump. Ivy clad with wire on the trunk.	Neighbour's tree, with permission, reduce the crown.

All work on trees to be carried out to BS3998:1989 and BS5837:05 and to comply with the permission granted by the Local Authority
Sound Arboricultural practices should be followed at all times.

EXPLANATORY NOTES ON TREE DATA

Tree No.	Dia. (cm) @ 1.5m	Dia. (cm) @ base	RPA radius (m)	RPA AREA (m ²)	Minimum barrier distance (m)
(T001)	46	-	5.5	96	4.9
(T002)	28	-	3.4	35	3.0
(T003)	31	-	3.7	43	3.3
(T004)	29	-	3.5	38	3.1
(T005)	-	23	2.3	16	2.0
(T006)	-	28	2.8	24	2.5
(T007)	24	-	2.9	26	2.6

Column 1: Shows the tree number in our main report.

Column 2: Shows the diameter of the trunk at 1.5m from the ground (chest height)

Column 3: Shows the diameter of the trunk at the base (ground level)

Column 4: Shows the RPA radius in metres calculated by measuring the trunk diameter at 1.5 metres from the ground and multiplying it by 12, or if measuring the diameter of the trunk from base level by multiplying by 10.

Column 5: Shows the RPA area, which is assessed according to the recommendations, set out in table 2 section 5 of BS5837 2005. It is calculated by multiplying the radius squared by 3.142, derived from the area of a circle being πr^2 .

Column 6: Shows the minimum barrier distance which has been assessed according to the recommendations set out in 5.2.3 of BS5837:2005. The basic RPA can be interpreted as a square surrounding the trunk with the closest point to the perimeter of that square listed in the tree schedule as the minimum barrier distance.

NOTE:

RPA's and other data have been calculated according to BS5837:2005. Under para.5.2.4 a) it is permitted that the RPA zone may be relocated up to a distance of 20% in any given direction whilst maintaining the overall RPA area. In this instance the following RPA has been adjusted:

T001 has been adjusted 20% north west.

T007 has been adjusted 20% south east.

APPENDIX

TREE PROTECTION BARRIERS



The following pages illustrate barriers, ground protection and special surfacing to be used near protected trees as recommended by BS5837:2005

1. The final design must be site specific and detailed by an appropriately qualified expert.

All uprights should be fixed in position for the duration of the development activity as either scaffold tubes or wooden posts banded or dug into the ground and braced sufficiently to withstand the pressures of everyday site work.

2. The framework supported by the uprights must be suitable for firmly attaching either heras panels or heavy duty ply in a way that will not allow the facing to be easily moved.

3. Minimum barrier height is 2.3m unless otherwise agreed with council.

4. Inside the protective barrier, the following rules must be strictly observed:-

- No vehicular access
- No fires
- No storage of excavated debris, building materials or fuels
- No mixing of cement
- No service installation or excavation without written consent of council
- No excessive cultivation for landscape planting

5. Weather proof warning signs should be attached at regular intervals along the protective fencing the signs should say 'CONSTRUCTION EXCLUSION ZONE – KEEP OUT'

6. No barriers should be moved or temporarily dismantled without the written permission of the council.

7. Barrier condition to be regularly monitored to ensure it remains effective.

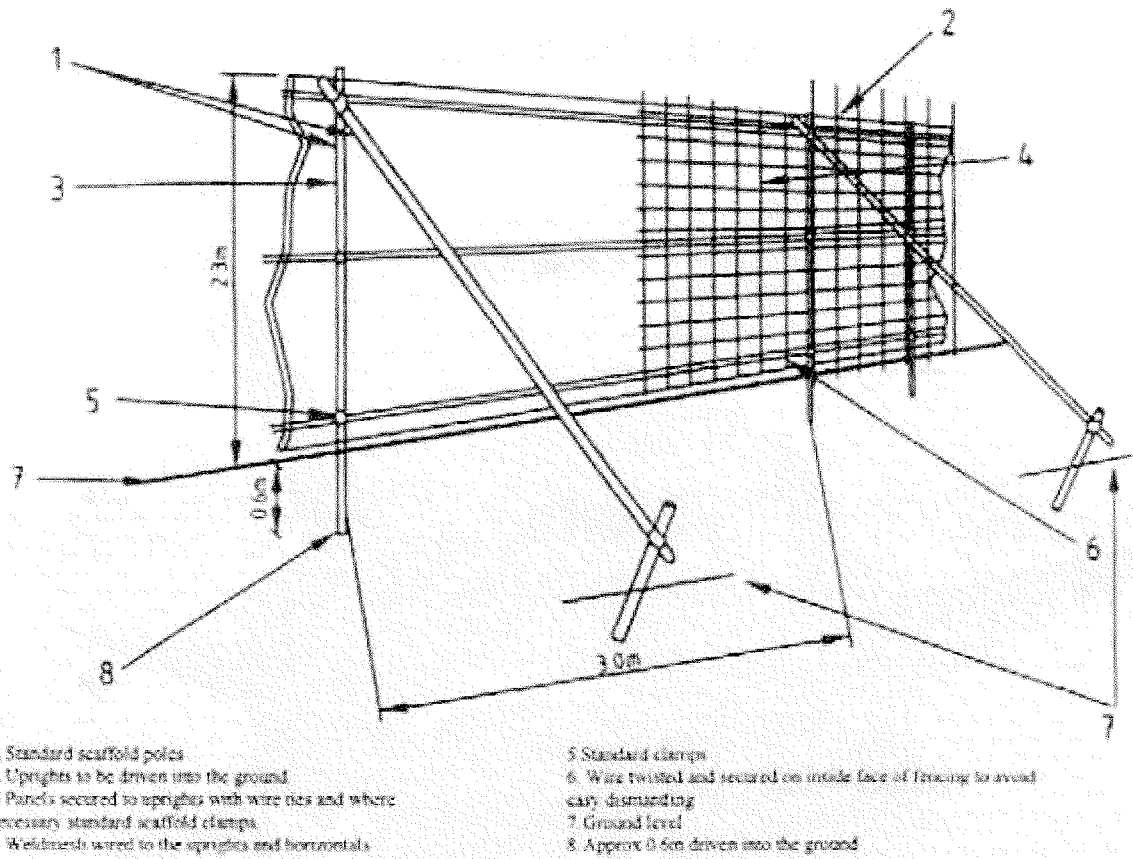


Figure 2 - Protective barrier

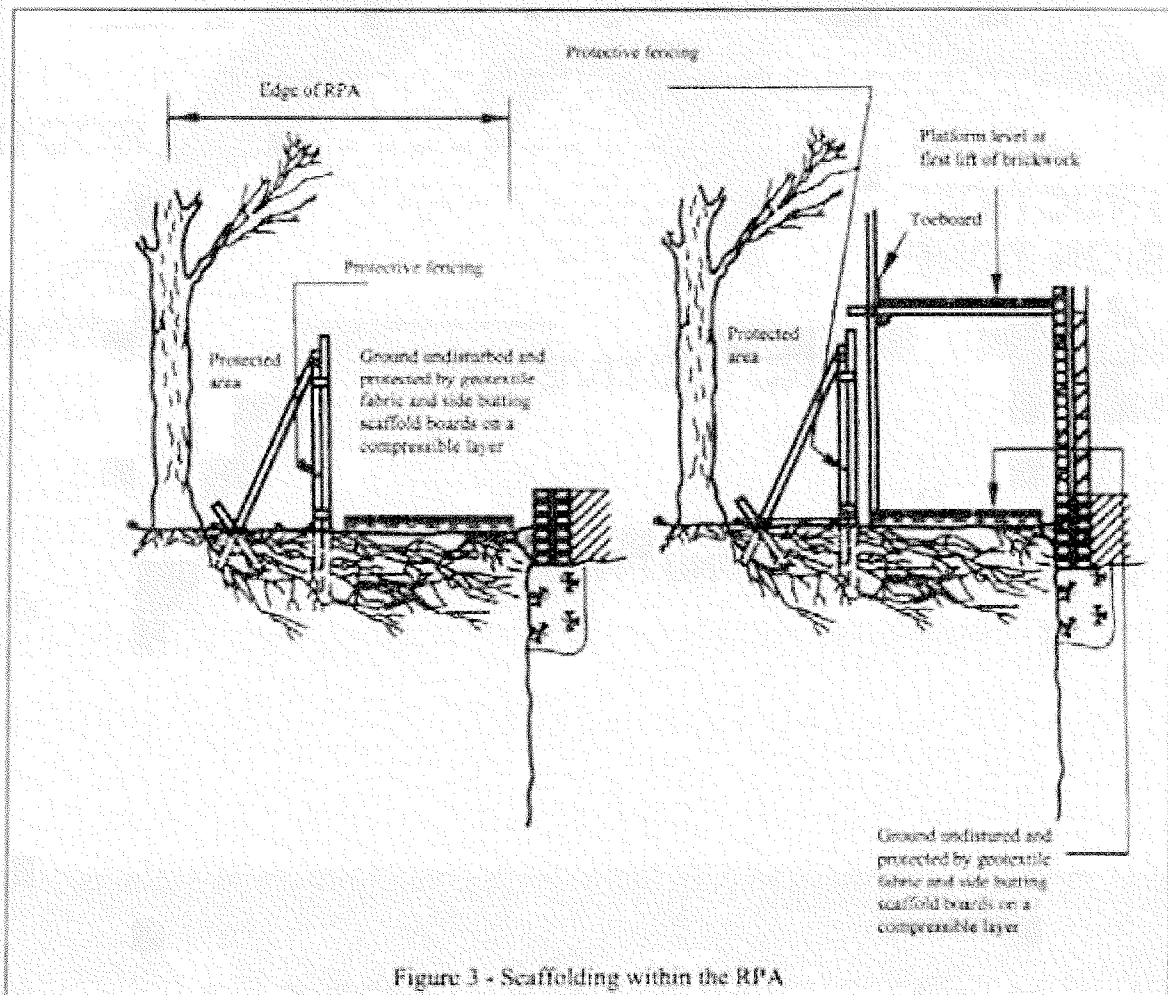
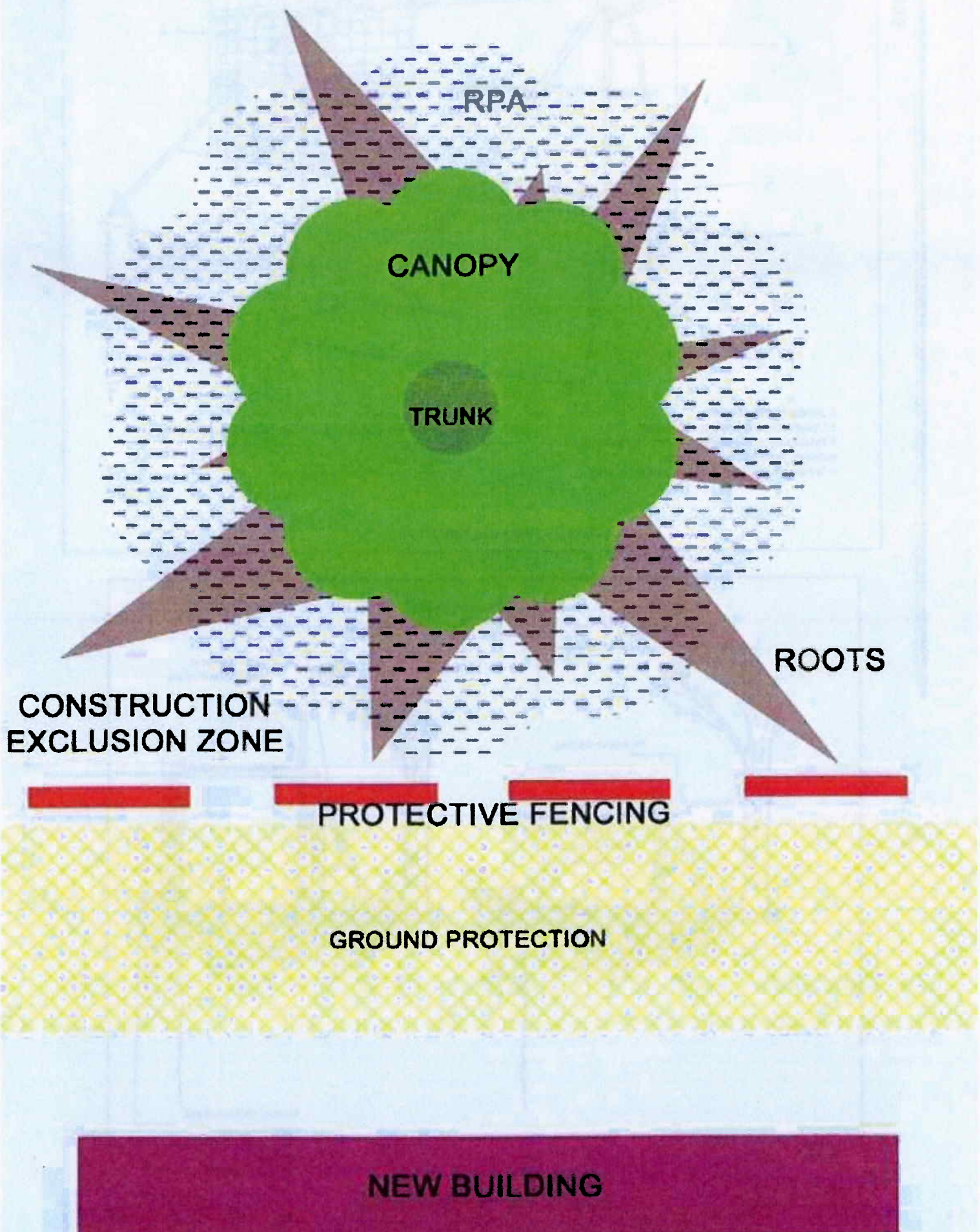


Figure 3 - Scaffolding within the RPA

Root Protection Zone



CONSTRUCTION OF DRIVEWAY UNDER THE CANOPY OF TREES

All digging should be carried out by hand retaining roots above 25mm in diameter. Any roots that need cutting should be cleanly cut and immediately covered with soil. All work to be done in accordance with British Standards BS5837:2005.

Existing soil level to be excavated by hand to a (maximum) depth of 50mm, removing loose-leaf litter layer. Foundations for new surfaces to be constructed above this level without further excavations ensuring that no damage is done to tree roots.

Geotextile membrane to be Terram 1000 (or similar approved) to be laid with no compaction of the existing soil.

150mm Geoweb infilled with 20-40mm no fines stone to be laid on Geotextile membrane).

Edging board to be surface mounted and fixed with timber pegs at 1m centres, avoiding tree roots. Level change, to be made up with topsoil over a minimum distance.

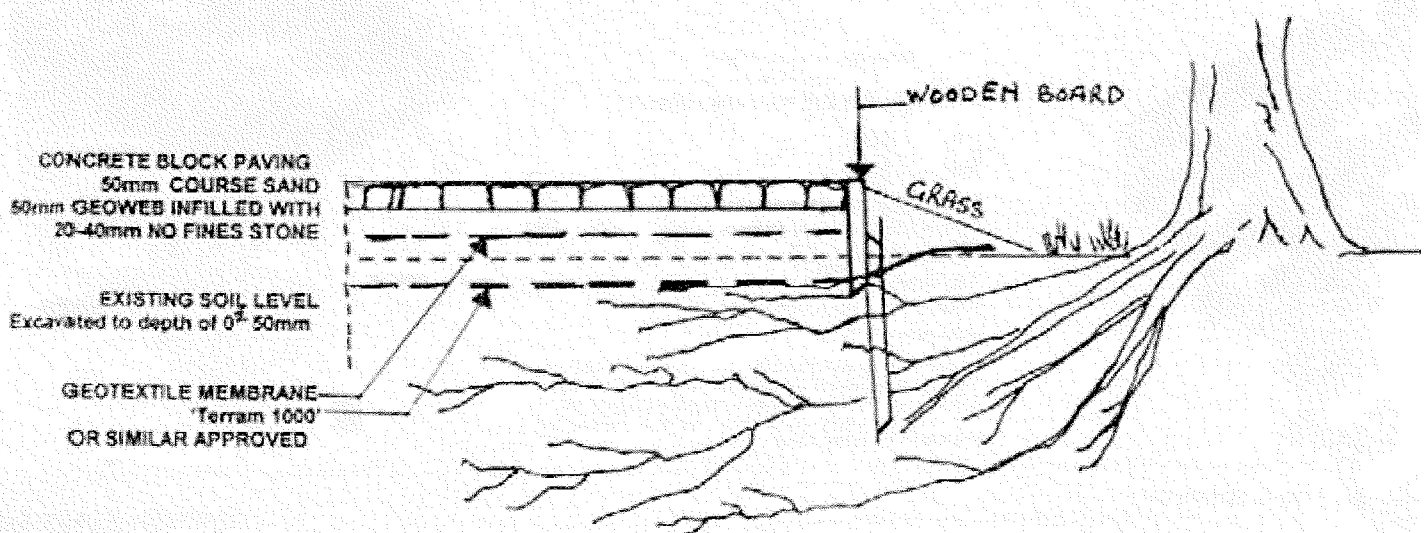
If the new driveway should cover over 20% of the RPA or be wider than 3m within it, it should be constructed to allow moisture infiltration and gaseous diffusion.

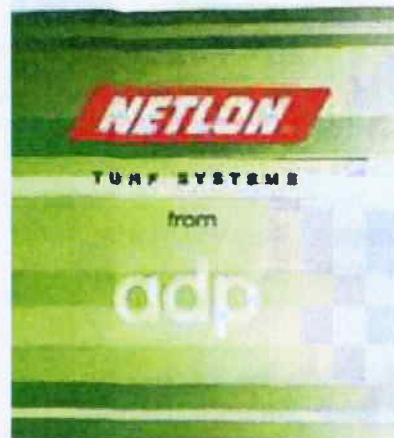
If the surface is to be concrete block pavers, they should be laid dry jointed onto a sharp sand foundation, to allow air and moisture to penetrate to the rooting area.

If the surface is to be gravel it should be land based, as any salt in the gravel will harm the trees. Binding gravels or hoggin should not be used due to their impermeable texture when consolidated.

If the surface is to be tarmac then it should be open textured tarmac, allowing moisture infiltration and gaseous diffusion.

If the surface is to be concrete, falls and openings should be provided for water and air to enter the soil. 50mm diameter holes should be made at regular spacing of 300-600mm and back fill the holes with no-fines gravel or aggregate.





Advanced Turf - TurfBlock - TurfGuard

benefits

- HGV load bearing capability
- Resists deformation and fracture
- Easy installation with no pegging
- Conforms to irregular surfaces and gradients.
- Provides ideal source control for Sustainable Urban Drainage Systems (SUDS)

technical data

Paver size: 500 x 500 x 50 mm deep (4 per m²)

Weight: 9 kg per m²

Load bearing: 150 tonnes per m²

Material: 100% recycled polyethylene

suitability

- Permanent and overspill car parks
- Drives, paths and cycle routes
- Fire and service access roads.
- Helpads

installation

For full installation instructions and technical advice please contact Netlon Turf Systems at the address below.



Netlon Turf Systems is part of Concrete Products

UK Distribution and Technical Support:



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Radway Green, Alcester, Cheshire CV2 5PR
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Email: enquiries@adp.co.uk
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green solutions for:

fire & service access roads | overspill parking | walkways | verges | SUDS
sportsfields | priority drives | events areas | helpads | slopes

Netpave[®] 50



SURFACE SOLUTIONS
FOR GRASS & GRAVEL

Netpave® 50

Installation

1. Place paver units with dimpled face uppermost (flared base down) onto the prepared, well consolidated bedding layer. The leading edge of the pavers should have the fixing lugs exposed for quick and easy installation. No pegging is required. Edging boards or kerbs can be used where required, according to local soil conditions.
2. Connect the pavers using the lugs and slots, progressing over the area in rows. Use protective gloves to avoid abrasions.
3. Pavers can be cut using a hand or power saw to fit around obstructions and contours. Cut pieces which are less than half the original size should be avoided where possible.
4. Fill pavers with the specified proprietary rootzone. Finished levels should be 7-10mm below the top of the cells after settlement. Do not overfill the paver cells. A light vibrating plate can be used to consolidate the pavers and to settle the rootzone fill if required.
5. Rootzone must be a free-draining structurally sound sand/compost or sand/soil blend. This is a nominal proprietary blend of 60:40 or 70:30 ratio. Self blending is not recommended.
6. Carry out a normal seeding, fertilising and watering programme. A very light top dressing may be applied to just cover the seed and to provide adequate germination conditions. **DO NOT OVERFILL.**
7. The surface may be trafficked immediately, but it is preferable to allow the grass to fully establish prior to use.

Note 1: If ADP-Tensar geogrid is omitted, then the total sub-base layer thickness must be increased by 50%.

Note 2: Typical drainage details: 100mm diameter perforated pipe drain laid at minimum gradient 1:100, bedded on gravel in trench backfilled with 'DoT Type A' drainage stone, covered or wrapped with a geotextile fabric and leading to a surface outlet or soakaway. Drains placed down centre or one edge of access routes up to 5m wide. Wider areas may require additional drains at 5m - 10m centres. Drainage design by specifier based on specific ground conditions on site. ADP Polybed may be considered for use as an alternative drainage product/system. Advice is available from ADP Limited.

Note 3: Specific advice on ground conditions, CBRs and construction over ground with a CBR less than 1% is available from ADP Limited.

Note 4: A 'DoT Type 1' sub-base may be used, provided that an adequate drainage system is installed, or alternatively a porous/open graded (reduced fines) sub-base layer, e.g. as part of a Sustainable Urban Drainage System (SUDS) application. If a reduced fines sub-base layer is specified, this must be covered with either a geotextile filter membrane or/and a suitable clean gravel bedding layer, to avoid the particles entering the sub-base layer.

Note 5: Rootzone bedding and paver fill must be a free-draining, structurally sound proprietary blend of sand/soil or sand/compost such as that used in sports/golf construction. This is normally defined as a 60:40 or 70:30 ratio blend and in-situ self-blending is NOT recommended. This type of rootzone is available from ADP Limited as 'ADP Greens 5 Rootzone'.

Note 6: Specific advice on Sustainable Urban Drainage Systems (SUDS) is available from ADP Limited.

Note 7: Maximum advised gradient for traffic applications is 12% (1 in 8). Specific advice for the use of Netpave 50 on slopes can be obtained from ADP Limited.

Note 8: Netpave 50 complies with BS8300:2001 - "Design of buildings and their approaches to meet the needs of disabled people" Code of Practice.

Chart 1: Field guidance for estimating sub-grade strengths

Consistency	Indicator			Strength	
	Tactile (feel)	Visual (observation)	Mechanical (test) SPT	CBR %	CU kN/sqm
Very Soft	Hand simply squashes through fingers	Man standing will sink >75mm	<2	<1	<25
Soft	Easily moulded by finger pressure	Man walking sinks 60-70mm	2-4	Around 1	Around 25
Medium	Moulded by moderate finger pressure	Man walking sinks 25mm	4-8	1-2	25-40
Firm	Moulded by strong finger pressure	Utility truck ruts 10-25mm	8-15	2-4	40-75
Stiff	Cannot be moulded but can be indented by thumb	Loaded construction vehicle ruts by 25mm	15-30	4-6	75-150

This chart is provided as a guide to assist in estimating the strength of sub-grade. It does not constitute a warranty or guarantee of any kind. ADP accepts no responsibility for any loss or damage resulting from the use of the guide.

Netpave 50 is a registered trademark of ADP Limited. Netpave 50 is a registered trademark of ADP Limited.

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NETLON

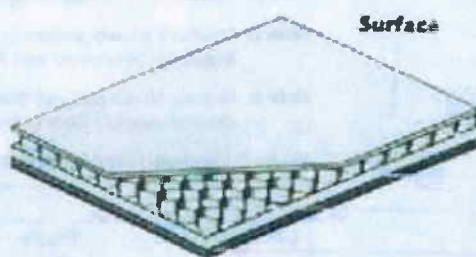
CellWeb™



CellWeb™ Confinement Systems

Tree root protection

Because CellWeb™ reduces the need for excavation, this makes it ideal for stabilising access roads and car parks around tree root systems. What's more it reduces compaction of sub soils above the roots and promotes the migration of water and nutrients, ensuring the long-term preservation of the tree itself.



Cellweb
Geotextile
Infill
Subgrade



Geosynthetics Limited



Geosynthetics Ltd
Fleming Road
Harrowbrook Industrial Estate
Hinckley, Leicestershire
LE10 3DU

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sales@geosyn.co.uk
www.geosyn.co.uk

Method Statement

For The Installation of Cellweb Tree Root Protection System.



When considering damage to tree roots, in applications of vehicular access and parking, the risk of oxygen depletion caused by compaction of subsoil's, site clearance damaging the root source and type of reinforcement are areas which need to be given due consideration.

Other risk factors are:

- Creating an impermeable surface
- Causing a rise in the water table due to construction
- Increasing ground level
- Contamination of subsoil's

1. Compaction

When looking at site conditions and use, the following information should be considered to enable a load bearing structure capable of supporting traffic to be proposed:

- Californian Bearing ratio (CBR) – Standard test method for measuring soil strength
- Soil types
- Water table
- Maximum load (vehicles)
- Acceptable rut depth
- Reinforcement type Cellweb Cellular Confinement
- Type and Depth of engineered infill material Clean, angular. Usually 40mm to 20mm.

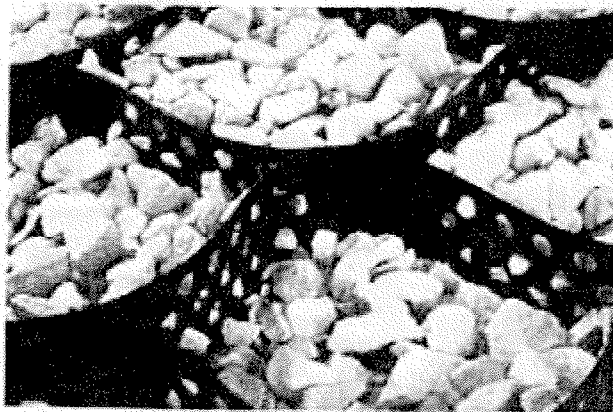
2. Dig (site strip)

Site stripping does damage some root structure prior to construction; however, the use of no-dig construction elevates the access road requiring edge protection.

3. No dig

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|---|--|
| 3.1. Remove surface vegetation | Use a suitable herbicide suitable for the specific vegetation and not harmful to the tree root system |
| 3.2. Place geotextile separation filtration layer | Use a Fibretex F4M non woven Geotextile over the prepared sub-grade. Overlap dry joints by 300mm. |
| 3.3. Cellular Confinement System | The three dimensional cell structure, is formed by ultrasonically welding polyethylene (perforated) strips / panels together to create a three dimensional network of interconnecting cells. A high degree of frictional interaction is developed between infill and the cell wall, increasing the stiffness of the system |
| 3.4. Edge restraint | A treated timber edging is usually acceptable. |

4. Cellular Confinement and Backfill Material.



geogrid-reinforced structures demonstrate a 50% reduction in construction thickness of the granular material.

Expand the Cellweb 2.56m wide panels to the full 8.1 metre length. Pin the Cellweb panels with staking pins to anchor open the cells and staple adjacent panels together to create a continuous mattress. Infill the Cellweb with a no fines angular granular fill (typically 40-20mm) within each open cell. The use of cellular confinement reduces the bearing pressure on the subsoil by stabilising aggregate surfaces against rutting under wheel loads. Comparisons between cellular confinement and traditional aggregate and

5. Surfacing Options

Block Paving:

5.1. Lay second layer of Fibretex F4M Geotextile separation fabric over the infilled Cellweb sections

5.2. Lay sharp sand bedding layer compacted with a vibro compaction plate to recommended depth.

5.3. Place block paviors as per manufacturers instructions.

Tarmac:

Place 25mm surcharge of the granular material above the Cellweb system and lay the bitumen base and wearing courses.

Loose Gravel:

5.4. Place second layer of Fibretex F4M Geotextile separation fabric over the infilled Cellweb sections

5.5. Place decorative aggregate to required depth

NOTE: A treated timber edge should be provided to restrict gravel movement.

Grass Blocks:

5.6. Place second layer of Fibretex F4M Geotextile separation fabric over the infilled Cellweb sections

5.7. Place 50/50 rootzone bedding layer to the required depth

5.8. Lay recycled Duo Block 500 Grass Protection System infilled with 50/50 rootzone mix.

5.9. Seed as per architects instructions.

(Alternatively the Grass Blocks may be infilled with gravel.)

Below are illustrations of the correct stapling procedure for joining both edges and ends of panels together.

