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Arboricultural Method Statement for the proposed development of Howard's Yard Havant Road Hayling Island

Prepared by Kim Gifford 12th November 2013

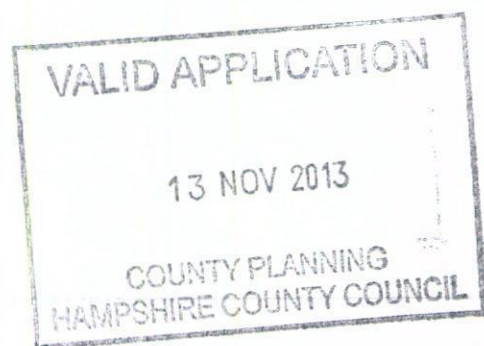


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1. Arboricultural Method Statement

The following arboricultural method statement is to provide a protection strategy for trees to be retained throughout the development project at Howards yard Havant Road Hayling Island. The method statement needs to be read in conjunction with the accompanying tree protection plan . These documents should be available to all contractors involved in the development project, both for tendering and for reference during site work. A copy of them should be readily available in the site offices of the project.

Contacts:

1. Local Authority Arboricultural officer -Contact:
2. Site Agent -Contact:
3. Appointed arboriculturist -Contact:

No contractors have been appointed at this stage. If there is a need to review any of the protection plans/method statements in light of additional requirements identified by contractors, written approval for any such modifications will be obtained from the LPA prior to commencement of any work

1.1 General

1.1.1 The methodology of the tree protection measures follows a logical sequence of development events. Variations to the sequence could significantly reduce the efficiency of the tree protection measures. Variations to the proposed development will require input prior to commencement of the variations, from the appointed arboriculturist and/or the LPA arboricultural officer.

1.1.2 The LPA will be given notice in writing 5 full working days prior to the date of commencement of development to check all tree protection in place.

1.1.3 All development works within the RPA of any retained tree will be carried out strictly in accordance with the arboricultural method statement.

1.1.4 It is recommended that works within the RPA, as well as the installation & modification of all tree protection measures, are carried out under supervision by an arboriculturist. It is the responsibility of the client to appoint an arboriculturist prior to commencement of works. Details of the appointed arboriculturist will be forwarded to the LPA.

1.1.5 A schedule of activities that will require arboricultural supervision at various stages has been produced. This should form the minimum site attendance by the appointed arboriculturist, as well as the Local Authority tree officer (where relevant).

1.1.6 Periodic reports, along with supporting evidence, will be submitted to the LPA on the tree protection measures, as well as the results of activities within the RPAs of retained trees.

1.2 Preliminary tree maintenance.

1.2.1 Prior to carrying out any tree work, all trees recommended for tree work/removal including their immediately adjacent trees, will be inspected for bird nests (wholly and partially built ones). In the event nests are found, the tree work will not be carried out until the trees are found to be free of the nesting birds & their young. This is a requirement under the Wildlife & Countryside Act 1981 & The Countryside & Rights Of Way Act 2000.

1.2.2 All tree work will be carried out in accordance with BS3998:2010 & will be carried out without harming the adjacent retained trees.

1.3 Preliminary vegetation control.

1.3.1 N/a - not applicable

1.4 Preliminary tree protection methods.

Prior to development, the following measures will be carried out:

1.4.1 All / any preliminary tree work should be carried out in a way that does not damage the retained trees and/or their rooting mediums and/or their roots

1.4.2 Protective fencing of the type shown in the protection plan will be placed in the positions indicated on the protection plan. Note that these plans are to scale and can be scaled off. The fencing will be permanently fixed to the ground as shown in the plans, or fixed to a permanent feature. Weather proof signs will be attached to the fencing, stating their purpose and that they should not be moved. The protective fencing will delimit a construction exclusion zone and will be considered immovable. The positioning & installation of the protective fencing will be supervised by the appointed arboriculturist.

1.4.3 Ground protection of the type specified in the protection plan will be placed in the positions shown on the plan. The type specified will be determined by the assumed load expected. Any loading in excess of 1t will require the use of heavy duty ground protection, as indicated. This will be supervised by the appointed arboriculturist.

1.4.4 Prior to commencing work on site, all contractors will be given an induction on the tree protection measures employed during the development project and on the potential consequences of disregarding them (pre-commencement meeting).

1.5 Arboricultural Methods and restrictions during all phases of development:

The following general tree protection measures will be adopted throughout the life of the development:

1.5.1 The fencing comprising the construction exclusion zone will not be moved, except if specified in the tree protection plans. All staff on site will understand the need for protective fencing, as well as any ground protection and to keep strictly within the designated access routes, when moving in/out the site.

1.5.2 Protective fencing will be maintained & inspected on a weekly basis by the site manager. Inspections will be recorded on an inspection form.

1.5.3 All damage to protective fencing or accidental damage to trees will be reported to the site manager immediately. Works occurring within the incident vicinity will cease immediately until adequate tree protection measures are re-established. A record of the damage will be made by the site manager and, in consultation with the appointed arboricultural consultant, remediation measures carried out.

1.5.4 No materials and/or plant will be stored within the designated root protection area of any of the trees and/or within the delimited construction exclusion areas. Any liquid materials to be stored on site, will be located where, in any event of spillage, will allow for natural run-off to be away from the designated root protection areas and buffer zones and/or stored within a pre-constructed spillage containment area.

1.5.5 The mixing of concrete and mortar will be performed outside any root protection areas, in such an area where in the event of any spills, any liquid will drain away from the root protection areas and any buffer zones and/or within a pre-constructed spillage containment area.

1.5.6 The use and movement of any cranes/heavy lifting arms/digger arms and booms of delivery vehicles will be carried out without damage to any part of the retained trees.

1.5.7 No dry construction materials will be stored within the RPAs of the retained trees, unless adequate ground protection (approved by the appointed arboriculturist), has been installed within the storage area.

1.5.8 No soil, demolition debris, or any other arisings will be stored within the RPAs or under canopies of the retained trees, whichever is the greater.

1.5.9 No ground level changes will occur (no grading/levelling/raising), within any RPAs of the retained trees, unless consented to by the LPA & supervised by the appointed arboriculturist. Changes to the ground levels within RPAs of retained trees will follow the advice of the appointed arboriculturist.

1.5.10 No additional tree work will be carried out unless consented to in writing by the LPA

1.5.11 The positions of all site welfare & storage areas will also be located outside any canopy areas & RPAs of any retained trees.

1.5.12 No fires will be lit within 20 metres of any RPAs or canopies of retained trees, whichever is the greater

1.5.13 For the purposes of this method statement, significant roots referred to, constitute individual roots of diameters of 25mm and above, as well as dense fibrous root masses. The significance of both will be determined by an appointed arboriculturist upon discovery of either.

1.5.14 If roots 20mm and smaller in diameter are damaged that belong to retained trees, these should be cut cleanly and covered in damp Hessian or soil. If roots 25mm and larger are damaged or if a large number of smaller roots are damaged, these should be covered in damp Hessian or soil & advice should be sought from the appointed arboriculturist prior to treating them.

1.6 Demolition/Preparation:

1.6.1 A pre-commencement site meeting will be carried out by all involved in the construction & the supervising arboriculturist, to clarify tree protection measures.

1.6.2 Tree protection measures will have been installed prior to any commencement of demolition site preparation.

1.6.3 No plant machinery will encroach on the RPAs of the retained trees, unless the ground is adequately protected & the machinery is incapable of striking the canopy or tree stem. If plant machinery is to encroach on protected RPAs of retained trees, this will be supervised by the appointed arboriculturist.

1.6.4 The protective fencing in the site (protecting trees), will be retained in situ until landscaping operations are to be undertaken. This will provide additional protection for the Root Protection Areas.

1.6.5 Debris from any preparation work will not be stored within any RPAs of retained trees at any time.

1.7 Construction:

1.7.1 The tree protection measures will be retained in the positions specified on the Protection Plan.

Structure foundations within RPAs:

1.7.3 The foundations for the proposed building does not encroach on the RPA of T2. **There will be work within the RPA.** Excavations will be carried out by hand tools only within this RPA, to minimise damage to encountered roots. When roots are encountered, these will be cut cleanly. Excavations in this area will be supervised by the appointed arboriculturist.

1.7.4 Impermeable membranes will be used when pouring concrete for foundations, to avoid contamination of the soil & damage to any tree roots by wet cement, particularly within the RPAs of the retained trees.

Underground services:

1.7.5 The excavations for any underground services will (where possible) be routed outside any RPAs. If it is unavoidable that underground services be run inside RPAs, then the trenches for them will be excavated by hand or air-spade. Any roots that span the trench during digging will not be cut, but will have damp Hessian sacking placed around them. Damaged roots of up to 2cm diam will, where possible, be cut cleanly and covered. Any substantial roots (larger than 25mm diam), that become damaged or need to be removed, advice will first be sought from the supervising arboriculturist prior to any work being carried out on them. This will be carried out under arboricultural supervision

1.7.6 If and when installing infrastructure for underground services, they will be done by hand within any RPA and care will be taken not to damage the exposed roots. Back-fill within an RPA will not be compacted and will possess the same soil profile as the surrounding soil. If there is a need to compact Backfill, in preparation for the reinstatement and/or installation of infrastructure within an RPA, then CU structural soil will be used as Backfill.

1.7.7 The timing of any excavations for underground services will coincide with the arrival of materials to be used for the construction of the underground services, to minimise the time that roots are exposed. Roots will not be left exposed for more than 24 hours.

1.8 Landscaping:

1.8.1 Landscaping operations will commence only when all main construction work has ceased. The protective fencing will be removed immediately prior to commencing these operations.

1.8.2 No soil lowering will occur within the RPAs of the retained trees.

1.8.3 The existing soil levels will not be raised by more than 150mm within RPAs of retained trees without seeking advice from the appointed arboricultural consultant.

1.8.4 Excavations for planting within RPAs of retained trees will be carried out by hand only. The same will apply for introduction of topsoil, plant transport & mulching.

1.8.5 All landscaping work within RPAs of retained trees will also be carried out by hand only.

Footpaths/hard surfaces:

1.8.6 The existing hard surface remaining within the RPA of Tree 1 will be carefully removed using hand tools only. Any exposed roots will be covered with damp Hessian. Debris from the excavation will not be stored in this area but will be immediately removed from the RPA.

1.8.7 General purpose topsoil to BS3882:2007 will be used to replace the previous hard surface. This will be transported & spread using hand tools only, within the RPA of tree T2 to T6.

1.8.8 Any proposed new footpaths within any RPAs of retained trees will utilise a 'no-dig' (Cellweb) system for their sub-base. Edging will be wood planks. Finish materials will be gas permeable & porous & will be of a loose angular finish (e.g. 20mm Cotswold Buff; 20mm Oxford stone), to allow partial binding to occur & easy re-levelling.

Boundary treatments within RPAs:

1.8.9 Where new boundary fences are proposed to be installed within the RPAs of retained trees, this will be carried out using hand tools only. Excavations will be undertaken using hand tools only at proposed fence post locations to confirm the existence of significant or insignificant roots. If significant roots are found, then an alternate location will be sought using the same method. Impermeable membranes will be utilised when pouring concrete foundations for posts, to avoid contamination of the soil & damage to tree roots. This will all be carried out under arboricultural supervision.

1.9 Post-development tree Care and amelioration

1.9.1 Once all construction & landscaping activities have been completed, any remaining ground protection/protective fencing will be removed.

1.9.2 A detailed visual inspection of the retained trees on the site & their RPAs, will be carried out, to check for signs of development damage to both the trees and their rooting environment. Appropriate remedial tree / soil work will then be recommended by an arboriculturist.

1.9.3 Any damaged branches will be removed or pruned cleanly in line with current good arboricultural practice (BS3998:2010) and any specific arboricultural advice. Any other remedial work will also be carried out as & when recommended.

1.9.4 An annual tree inspection regime will be implemented to monitor the health of the retained & replaced trees for an agreed period after the development project is complete. The appointed arboriculturist will provide reports to the client & the local authority tree officer at agreed times, on the condition of the retained trees & any remediation work recommended.

2. Site Supervision

BS5837:2012 recommends site supervision at regular intervals & many local authorities are requesting detailed schedules for site supervision, as well as the details of the supervising arboriculturalist.

If the above is required by the LPA, the appended table indicates when attendance by an arboriculturist for the site should occur, to ensure appropriate tree protection.

This concludes the method statement.

Kim Gifford
Arboricultural Consultant.

Supervision schedule

	Pre-development& preparation	During construction	During Landscaping	Post-construction
Site attendance by Arboriculturist needed	1.Site meeting with all involved in the Development project	1.Site meeting with all involved in the Development project	1.Monitoring the removal of the existing hard surface with in the RPA of trees	1.Visual inspection of trees within RPAs of retained trees to identify any construction related damage
	2.Supervising the initial construction& positioning of protective fencing & ground	2.Monitoring the excavations within the RPA of trees	2.Monitoring the introduction of new topsoil in to the RPA of trees	2.Submission of final report to LPA
	3. Periodic site visits to check integrity of protection measures	3.Supervising the installation of any underground services within the RPAs of retained trees	3.Periodic site visits to check integrity of protection measures	
	4.Submission of report to LPA	4.Periodic site visits to check integrity of protection measures		
		5.Submission of report to LPA		

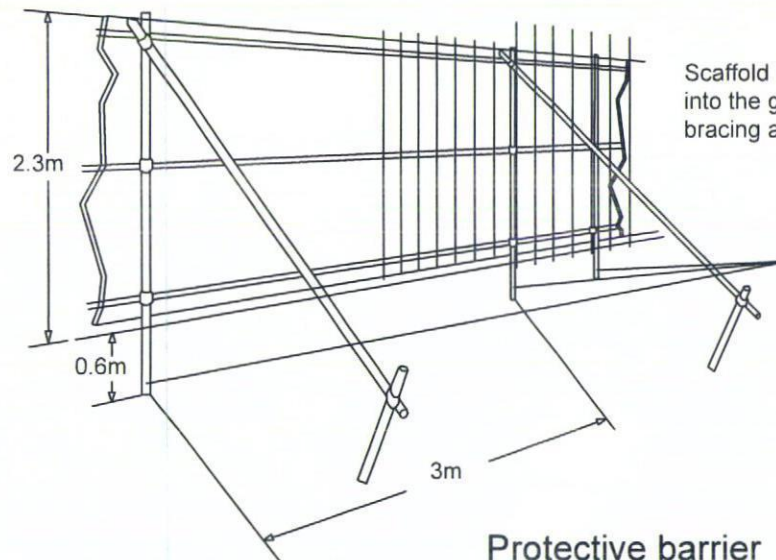
Surveyed Trees	Howards yard Havant Road Hayling Island													
Tree Number	Species	Common	Height	Stem Dia- meter	Canopy	Crown Clearance	RPA radius	Age Class	Physiological Condition	Structural	Est. Remaining Contribution	Catego	Recommendations	Notes
T1	Quercus robr	Oak	H = 15m	800mm	7N 7E 7S 7W	Clearance = 4m	RPA r = 10m	Mature	Poor	Declining	10-20 Years	U/R	Remedial removal or deadwood or removal	investigate decay at base
G1	Mixed group	Ash/Oak/Conifer	H = 10m	Average stem 200mm	N/A	Clearance = N/A	RPA r =	Semi mature	Poor	Poor	N/A	U/R	To be removed. Replacement planting in the Proposed scheme	
G2	Shelter Belt Planting	Mixture of Young Mainly Thorn,Willow,Hazel, Beech etc some self set	H = 8m	Average stem 60mm – 200mm	N/A	Clearance = N/A	RPA r =	Young	Poor	Poor	10-20 Years	C	Poor unmanaged area requires removal for proposal. Transplant and replant along new Boundary to mitigate removals	
G3	Hedging	Thorn and mixed broadleaf	H = 8m					Young	Fair	Fair	40+ Years	C	N/A to be undertaken in proposal Maintain as a screen.	
T2	Quercus robur	Oak	H = 18m	1200mm	10N 10E 10S 10W	Clearance = 4m	RPA r = 15m	Mature	Good	Good	40+ Years	B	Root Protection Area to be erected before construction and details as documented in the Arboricultural Method Statement Will be adhered to at all times.	
Produced from data obtained by the 2013 tree survey by Gifford Tree Services					Survey 11 th November 2013 by Kim Gifford Arboricultural Consultant – In fair weather conditions.									

ARBORICULTURAL SURVEY - DEFINITIONS.

Hgt	Tree Height (in metres)
SD	Stem diameter at 1.5 metres above ground level (in millimetres)
N-E-S-W	Branch spread taken at four compass points (in metres)
Crown clearance	Height of crown clearance above adjacent ground level (in metres)
Age Class	Y - Young SM - Middle Ages M - Mature OM - Over Mature V - Veteran
P. Cond	Physiological condition G - Good F - Fair P - Poor D - Dead
S. Cond	Structural condition General comment on safety of tree.
Radius	Root Protection radius (m)
RPA	Root Protection area (m ²)
ERC	Estimated remaining contribution in years.
Category grading	R - Existing condition is such that any existing value would be lost within 10 years and therefore should be removed for reasons of sound Arboricultural management. A - High quality and value (40 yrs+) B - Moderate quality and value (20 yrs+) C - Low quality and value (10 yrs+)

Principles to be adopted for protective fencing:

20mm exterior grade ply and/or weldmesh wired to uprights and horizontals. Wire twisted and secured on inside face of fencing to avoid easy dismantling. An alternative use can be sections of Heras fencing instead of ply.



Scaffold Uprights driven well into the ground with additional bracing as required

Where it is impossible/impractical to insert scaffold into ground, Heras panels grounded in concrete or rubber feet can be used, with road pins inserted through the feet to secure them. Anti tamper couplings should be used in conjunction with this alternative, as well as diagonal strengthening struts

If site conditions do not allow room for back supports, then smaller diagonal strengthening struts can be attached to panel feet. These should also use road pins through the feet to secure them





**FENCING MUST BE
MAINTAINED IN ACCORDANCE
WITH THE APPROVED PLANS
AND DRAWINGS FOR THIS
DEVELOPMENT.**

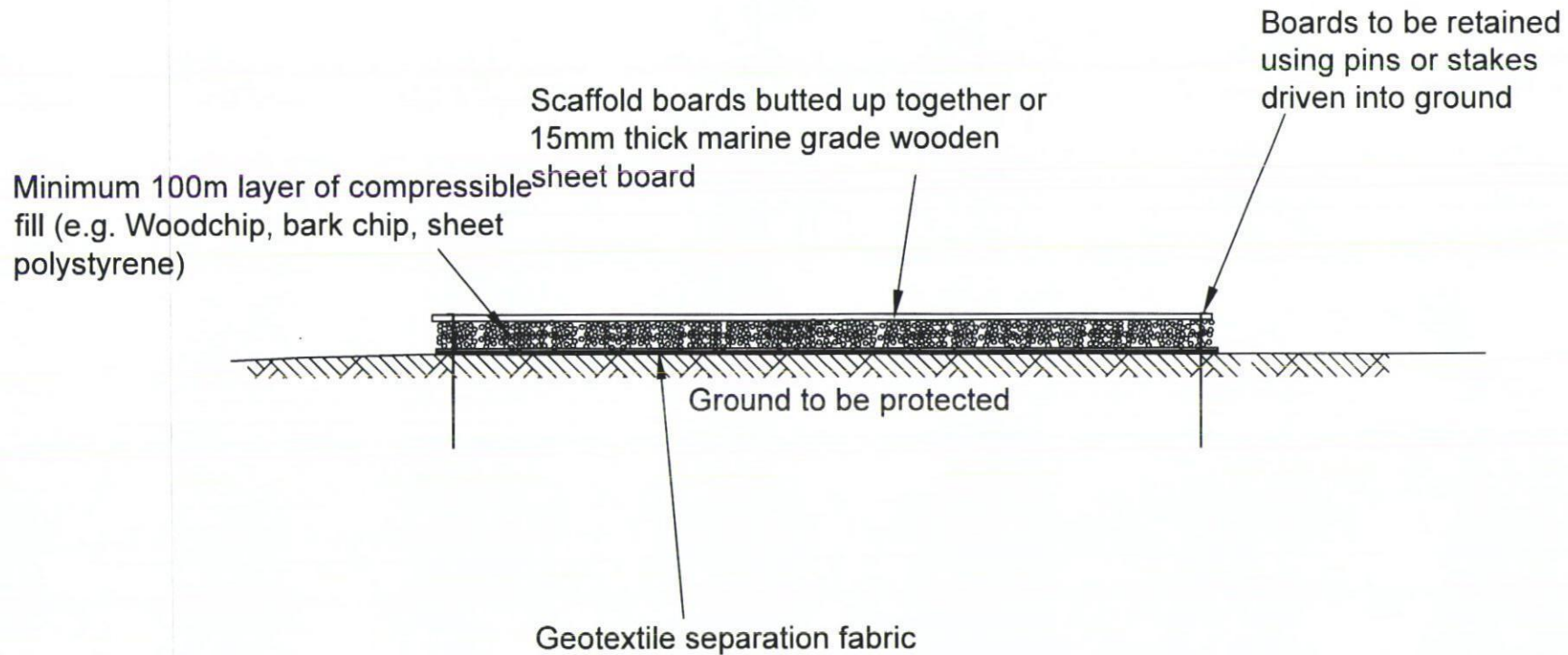


KEEP OUT !

**(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY
PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A
TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY
LEAD TO CRIMINAL PROSECUTION**

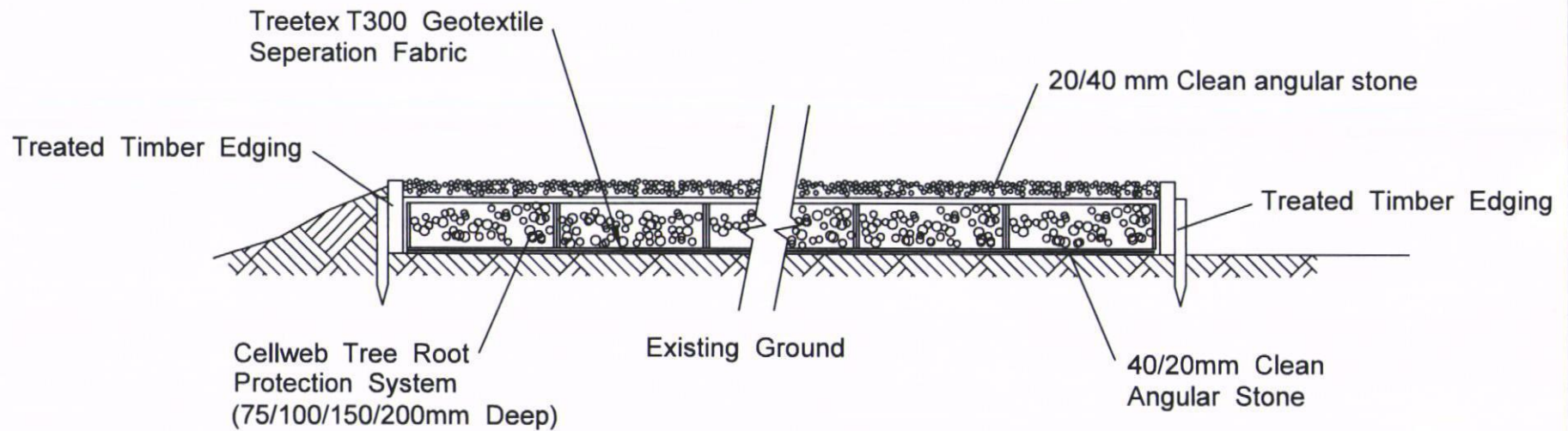
**ANY INCURSION INTO THE PROTECTED AREA MUST BE
WITH THE WRITTEN PERMISSION OF THE LOCAL
PLANNING AUTHORITY**

Light Duty Ground Protection - Ground protection specified cannot accommodate loading in excess of 1 tonne



BS5837 compliant ground protection for light traffic

Heavy Duty Ground Protection



Geosynthetics Ltd
 Fleming Road, Harrowbrook Industrial Estate,
 Hinckley, Leicestershire. LE10 3DU
 Tel: 01455 617139 Fax: 01455 617140 www.geosyn.co.uk

TITLE

Cellweb Section - Tree Root Protection
 c/w Gravel Surface

The map shows the study area with the following labels and features:

- Mill Rythe Lane**: A road running horizontally across the upper middle of the map.
- Havant Road**: A road running diagonally from the bottom left towards the center.
- G1**: A label in a box pointing to a specific location on Mill Rythe Lane.
- Oak T1**: A label in a box pointing to a tree marked with a circle on Mill Rythe Lane.
- G2**: A label in a box pointing to a location within the fenced area.
- Oak T2**: A label in a box pointing to a tree marked with a circle near the bottom left, adjacent to Havant Road.
- RPA fencing**: A label in a box pointing to a red line that outlines a large, irregular fenced area.

TREE PROTECTION PLAN: BY KIM GIFFORD ARBORICULTURAL CONSULTANT
12th November 2013

T1 Oak -In poor condition requires remedial treatment or removal.

G1- Mixed trees Ash/Oak/Conifer- To be removed (new planting in the scheme)

G2-Young Mixed shelterbelt to be removed and replants along the new boundry of the scheme.

G3-Existing mixed hedhging to remain.

T2 Oak - Mature Oak in good condition to be protected in accordance with Arboricultural Method Statement- install root protection fencing(RPA) before construction starts.

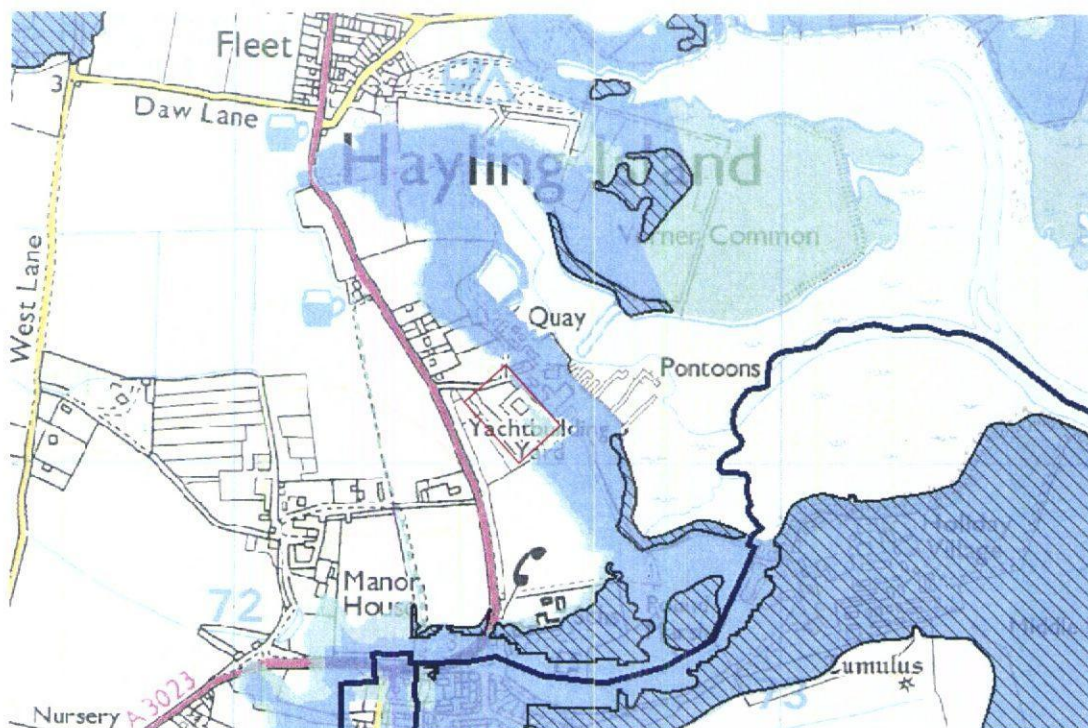
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Scale

Flood Risk Assessment Brenchley Yard (North end of old Howards scap yard site)

Parts of the site are identified as a extent of extreme flood area (the lowest level of flood risk identified by the environment agency.) The site is significantly higher than the existing yards surrounding the site and the site itself has not flooded to date.

It should also be noted that the area of the site covered by the flood risk map (as shown below) does not include existing or proposed building areas and is limited to the part of the site used for storing vehicles and materials which would not be effected by water penetration, due to this day time only use and the limited occupation by staff the risk of flood is considered to be well mitigated by this application. Hence we believe the flood risk is acceptable.



Tree Survey

A full tree survey with recommendations is being prepared by Gifford Tree Services and will follow this application within the next 7-10 days