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Arboricultural Impact Assessment/Statement for Proposed Carport at 42 New Brighton Road, Emsworth, PO10 7QR.

1. Arboricultural Method Statement and Impact Assessment.

The proposed carport at 42 New Brighton Road Emsworth, PO10 7QR.

The following Arboricultural method statement is to provide a protection strategy for T1 Macrocarpa adjacent to this proposal. The tree protection plan (TPP) shows the area of proposal. The estimated area of incursion of the Root protection Area (RPA) calculated at 8no 300mm x 300mm post pile holes excavations amount to be less than 2% of the RPA. The proposal area is an existing driveway entrance covered with gravel. Therefore, these proposals are will not cause significant damage to the Macrocarpa T1.

This site has a mature Macrocarpa T1 tree on land north of 42 new Brighton Road with a Tree Preservation Order (see schedule below). The TPP includes provisions to install BS5837:2012 ground protection.

- a/ The construction Carport proposed is to be with 100mm x 100mm posts to support a wooden structure and flooring to incorporate a cellular confinement flooring system within the RPA.
- b/ The Carport is to be built on an existing driveway.

The project will include a structured procedure TPP of Arboricultural supervision as the attached flow chart and these details should be available on site and conveyed to the construction contractors.

1. Tree Protection will be installed before work commence.
2. Install ply boarding as ground protection of RPA as specified on the TPP.
3. Leave the existing driveway levels and install the Carport on these levels.
4. Install the Carport with 8no. Post holes at 300mm x 300mm to a maximum depth of 1m. To be undertaken by hand only.
5. Install the flooring of the Carport with a cellular confinement system to allow gaseous exchange for the Macrocarpa T1 and the root protection area. To be undertaken by hand only.

1.1 Specific Methods to be applied during all operations.

No-Dig Specifications will be compliant with the Arboricultural Practice Note 12 (APN12) and a similar product to <http://www.corelp.co.uk/core-root-protector/#1445872702304-861d1f3d-367e> using a cellular confinement system:

The construction progress will be in the following order:

- Kill ground vegetation using a systemic herbicide and gather organic material. Care must be used to select (by reading the label) a herbicide that will not affect the roots of the trees or vegetation. This operation must be carried out by an appropriately trained individual.

- Remove major protrusions such as rocks and stumps (stumps will be ground out to minimize ground disturbance). Fill in significant hollows with sharp sand.
- Lay geotextile membrane directly onto the soil over the whole of the drive.
- Edging as detailed by engineer.
- Lay the tree dimensional cellular confinement system (TDCCS) as specified by the engineer.
- Cover the TDCCS with a no fines aggregate infill. This is to be filled progressively so that machinery only move on the laid sub-base. The aggregate will not be tipped straight on to the TDCCS.
- Compact the sub-base to ensure binding with the TDCCS and minimize future rutting of the surface.
- Lay geotextile membrane directly onto the sub-base over the whole of the drive.
- This sub-base should be surfaced with brick pavers to allow permeability on a dry bed and grouted with kiln-dried sand or porous asphalt or concrete.

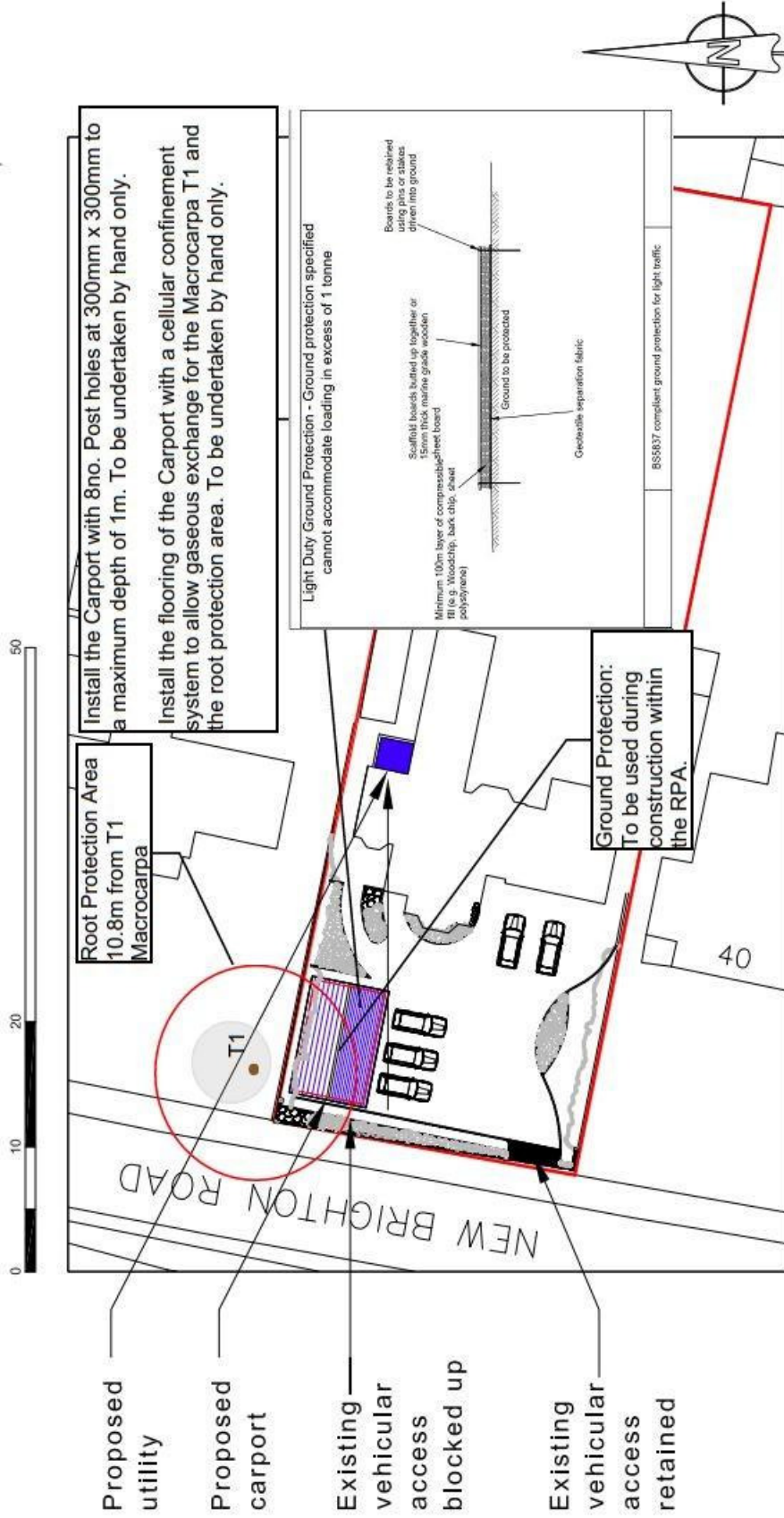
6. Adhere to all following pages 8 to 16 statements for this proposal at 42 New Brighton Road Emsworth.



Example of Cellular Confinement System:

NOTES:

Do not scale from these drawings except for planning purposes. Use figured dimensions only.
 Where applicable this drawing is to be read in conjunction with other consultants' drawings.



Not to scale: See separate document.

Tree Survey: Schedule

Method: Visual Tree inspection references, Principles of Tree Hazard Assessment and Management by David Lonsdale and The body language of tree by Claus Mattheck and Helge Breuer. The Arboricultural Association guidance note 7 tree surveys a guide to good practice. Lantra award Professional tree inspection. BS5837: 2012 Tree in relation to design, demolition, and construction recommendations.

- Tree Number: T1
- Species: *Macrocarpa* (*In land north of 42 New Brighton Road*).
- Height: 15m
- Stem diameter: 900mm
- Crown spread: 6m E6m S6m W6m
- Clearance: 4m>
- Root Protection Radius: 10.8m (as Annex D BS 5837:2012 table)
- RPA m2 = 366m squared
- Age Class: Mature
- Physiological Condition: Dying back.
- Structural Condition: Dead branches low vitality.
- Estimate Life expectancy: 20>
- BS5837 Category: C

Recommendation: Install BS5837:2012 ground protection as TPP during construction.

Contacts: statements for this proposal at 42 New Brighton Road Emsworth

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

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

1.1.1 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 Works will be strictly in accordance with the Arboricultural method statement.

1.1.4 It is recommended that only agreed works within the RPA, will only be 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 RPA of Macrocarpa T1 tree.

1.2 Preliminary tree maintenance statements for this proposal at 42 New Brighton Road Emsworth

1.2.1 Prior to carrying out any tree work, all tree recommended for tree work/removal including their immediately adjacent tree, 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 tree 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 tree.

No Tree Work Required

1.3 Preliminary vegetation control statements for this proposal at 42 New Brighton Road Emsworth

1.3. • **None required.**

1.4 Preliminary tree protection methods statements for this proposal at 42 New Brighton Road Emsworth

1.4.1 Construction required of ground protection as stated on the Tree Protection Plan by Arboricultural Consultant Kim Gifford 7th December 2020.

1.4.2 All or any preliminary tree work: *previously undertaken/ removal of some shrubs as plan.*

1.4.3 Protective ground protection 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.

1.4.4 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.

1.4.5 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: statements for this proposal at 42 New Brighton Road Emsworth

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

1.5.1 Ground protection 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 ground protection, 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 ground protection 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 ground protection or accidental damage to tree 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 tree and/or within the delimited construction exclusion area. 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 area 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 area, in such an area where in the event of any spills, any liquid will drain away from the root protection area 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 Macrocarpa T1 tree.
- 1.5.7 No dry construction materials will be stored within the RPA of the Macrocarpa T1 tree, 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 RPA or under canopy of the Macrocarpa T1 tree, whichever is the greater.
- 1.5.9 No ground level changes will occur (no grading/levelling/raising), within any RPA of the Macrocarpa T1 tree, unless consented to by the LPA & supervised by the appointed arboriculturist. Changes to the ground levels within RPA of Macrocarpa T1 tree 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 area will also be located outside any canopy area & RPA Macrocarpa T1 tree.
- 1.5.12 No fires will be lit within the RPA or canopy of Macrocarpa T1 tree.

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 are exposed advice should be sought from the appointed arboriculturist prior to treating them.

1.6 Demolition/Preparation: statements for this proposal at 42 New Brighton Road Emsworth

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 RPA of the Macrocarpa T1 tree, 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 RPA of Macrocarpa T1 tree, this will be supervised by the appointed arboriculturist.

1.6.4 The ground protection in the site (protecting T1), will be Macrocarpa T1 in situ until landscaping operations are to be undertaken. This will provide additional protection for the Root Protection Area.

1.6.5 Debris from any preparation work will not be stored within any RPA of Macrocarpa T1 tree at any time.

1.7 Construction: statements for this proposal at 42 New Brighton Road Emsworth

1.7.1 The tree protection measures will be Macrocarpa T1 in the positions specified on the Protection Plan.

Structure foundations within RPA:

1.7.3 The Carport post holes, and cellular confinement system is within the RPA of T1. The installation work is only to be undertaken by hand only. Excavations in this area will be supervised by the appointed arboriculturist.

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

Underground services:

1.7.5 The excavations for any underground services will be routed outside the RPA. (Not required)

1.8 Landscaping: statements for this proposal at 42 New Brighton Road Emsworth

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

1.8.2 No soil lowering will occur within the RPA.

1.8.3 The existing soil levels will not be raised by more than 150mm within RPA of Macrocarpa T1 tree without seeking advice from the appointed Arboricultural consultant.

1.8.4 Excavations for planting within RPA of Macrocarpa T1 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 RPA will also be carried out by hand only.

Footpaths/hard surfaces:

1.8.6 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. N/A

Boundary treatments within RPA:

1.9 Post-development tree Care and amelioration statements for this proposal at 42 New Brighton Road Emsworth

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

1.9.2 A detailed visual inspection of the Macrocarpa T1 tree on the site & RPA, will be carried out, to check for signs of development damage to the tree.

1.9.3

Appropriate remedial tree / soil work will then be recommended by an arboriculturist.

1.9.4 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.

1.9.5 An annual tree inspection regime will be implemented to monitor the health of the Macrocarpa T1 & replaced tree 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 Macrocarpa T1 tree & any remediation work recommended.

2. Site Supervision statements for this proposal at 42 New Brighton Road Emsworth

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 arboriculturist.

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 within 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&	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 RPA of	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		