



Tree Survey Report

BS5837:2012

**Arboricultural Impact Assessment, Arboricultural Method
Statement & Tree Protection Plan**

Development of Existing property and Excavation of the Driveway

27 Leigh Road, PO9 2ET

Author: Thomas Bevan L4 Dip Arb (ABC)

Client: Robin Locke

Date: February 2022

Contents:

Page 3.....	Section 1: Introduction
Page 4.....	Section 2: Tree Survey
Page 5.....	Section 3: Survey Methodology
Page 7.....	Section 4: Summary of Findings
Page 9.....	Section 5: Arboricultural Implications Assessment and Site-Specific Working Methods
Page 14.....	Section 6: General Working Methods for Surveyed Trees
Page 18.....	Appendix A — Tree Survey
Page 22.....	Appendix B — Tree Protection Plan
Page 24.....	Appendix C — Cascade Chart
Page 26.....	Appendix D — Tree Protection Fencing Example

Section 1.0: Introduction

1.1. Acornarb Limited was commissioned Robin Locke to undertake an Arboricultural Survey in line with the 'BS 5837-2012-Trees in relation to design, demolition and construction of trees,' of three (3) single trees within the front garden of 27 Leigh Road, PO9 2ET.

1.2. This survey and report have been completed by Thomas G Bevan, who holds a Level 4 Diploma in Arboriculture and has over ten years' experience working within the arboricultural industry.

1.3. All the advice given within this report is underwritten by our Professional Indemnity Insurance for the business practice of Arboricultural Consultancy in the sum of one million Pounds Sterling in each and every claim.

1.4. The scope considerations of the survey and report is to carry out an arboricultural survey to the specifications outlined within the '*BS 5837-2012-Trees in relation to design, demolition and construction of trees*' to assess trees, hedges and major shrub groups growing on and within influencing distance of the site and to produce a schedule of trees, Arboricultural Impact Assessment (AIA), Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP).

1.5. Where appropriate, recommendations of tree works are made in order to facilitate the proposed works or to improve the overall condition of the existing tree stock.

1.6. Several documents may be referred to throughout this report, these are as follows;

- Survey base drawing – Topographical Survey
- British Standard 5837:2012 – BS5837
- Tree Survey Schedule – Acornarb TSS01
- Tree Constraints Plan (TCP) – Acornarb TCP01
- Tree Protection Plan (TPP) – Acornarb TPP01

Section 2.0: Tree Survey

2.1. The tree survey was carried on the 15th of February 2022. The weather conditions on the day were dry, overcast with little to no wind.

2.2. Trees that were surveyed have been categorised using “Table 1 – Cascade chart for tree quality assessment” of the BS5837:2012 (see Appendix C).

2.3. Details for each of the trees surveyed are provided in the Tree Survey Schedule (see Appendix A).

2.4. No invasive or internal investigations, aerial inspections, soil samples, geological surveys, etc. were undertaken.

2.5. Pre-development tree surveys make arboricultural management recommendations based exclusively upon the individual tree or group of trees condition relative to their present context (i.e. not in relation to the proposed development).

2.6. All trees were inspected from ground level using the ‘Visual Tree Assessment’ (VTA) method. VTA is a method of tree diagnosis that is used worldwide and is recognized as industry best practice. VTA is a non-invasive method of examining the health and structural condition of individual trees. By using this method, I can gather information on the condition of the tree roots, trunk, main branch structure, crown, buds and leaves. This information will then aid in the assessment and conclusions about the general condition, health and vitality of the tree.

2.7. Equipment used to carry out the survey are as follows:

- Nikon Forestry Pro II Laser Rangefinder
- Laser measurer
- Compass
- Diameter tape measure
- Computer tablet

2.8. The trees were surveyed and assessed by using the current recommendations, as detailed in British Standards 5837: 2012 'Trees in relation to design, demolition & construction — Recommendations'.

Section 3.0: Survey Methodology

3.1. The trees were surveyed and assessed by using the current recommendations, as detailed in *British Standards 5837: 2012 'Trees in relation to design, demolition & construction — Recommendations'*.

The following data was collected from the tree survey:

- Tree Number / Group Reference
- Species (given in its common name for easy reference)
- Height
- Branch Spread (in meters taken at four cardinal points)
- Crown Clearance (in meters taken from ground level)
- Age Class
- Physiological Condition
- Structural Condition
- Estimated Remaining Life Span of the Trees (in years)
- Management Recommendations
- Notes

All trees that have been surveyed have been given notional identification e.g. T1 — T10. All collected survey data and recommendations for works on individual trees is presented in the survey schedule which is part of **Appendix A**.

Root Protection Area (RPA)

3.2. The RPA is worked out by measuring the diameter of the tree stem at 1.5 meters from ground level, and then multiplied by twelve.

3.3. The RPA will then generally form a Construction Exclusion Zone (CEZ). In most circumstances, the CEZ will be restricted from all types of development and workforce. In some instances, it may not be possible to exclude all development from the CEZ due to sites conditions. Under certain circumstances it may be possible to build within these areas providing that appropriate specifications have been agreed between the local planning authority, the consulting arboriculturist and the developer/client.

Tree Categorization

3.4. During the undertaking of the tree survey on site a method stated in the BS 5837:2012 is used to identify the trees that are of the best quality and value. By using this, you can score the trees A, B, C and U, with the subcategories 1 to 3 (example — A1 being the of the best quality and U being the poorest). Using this scoring system will allow an informed decision of which trees to protect and which trees to fell or prune to allow for the proposed development works due to their arboricultural and landscape values and cultural qualities.

Each of the tree's category can be found in **Appendix A**.

Section 4: Summary of Findings

4.1. A total of three (3) single trees have been surveyed. A break down in the number of trees in each of their retention category can be found in the table below.

Retention Category	Individual Trees	Groups of Trees
A High Quality	02	000
B Moderate Quality	00	00
C Low Quality	01	00
U Remove	00	00
Total	03	00

4.2. **Category A** and **Category B** trees under normal circumstances, are retained on development sites and influence and inform the design and site layout.

In some cases, specific construction methods will need to be used to protect them.

4.3. **Category C** trees under normal circumstances do not need to be retained in the development unless they do not pose a constraint to the development proposal.

4.4. **Category U** trees should be removed due to reasons of health & safety or sound arboricultural practice, regardless of the development proposals.

Section 5.0: Arboricultural Implications Assessment and Site-Specific Working Methods

5.1. This report is required for submission and informs the LPA on how the layout will achieve the successful healthy preservation of those trees to be retained.

5.2. There are several main constraints posed by trees in relation to them being present on a development site.

The area of the trees root system can pose a significant problem to the development due to potential root compaction and the desiccation by means of digging. It is important to put root protection areas (RPA) on the relevant drawings once the trees have been categorized.

RPA's will only take into consideration what is below the ground. The height and spread of the trees crown, species characteristics such as evergreen or deciduous, branch drop, foliage density, fruit fall, honeydew drip, etc. may also cause certain restraints. These attributes can significantly affect the living conditions or the land use. This may include the loss of light or even too much sunlight in one area.

5.3. Tree Preservation Orders (TPO) and conservation areas will play a part in the restraints in the planning application process, once the application is approved, they then become exempt.

5.4. The trees that are to be retained and their location will play a key role. It is important to take into consideration of the proposed development plan, if they are incompatible due to their location for the access of the machinery, scaffolding, barriers, etc. then there will be an issue regarding the tree's retention.

5.5. In the event of a large, over-mature or veteran tree, it is important that there is an adequate amount of space left to facilitate the longevity of the tree as well as any future maintenance.

5.6. Potential Impacts

Development of Existing property and Excavation of the Driveway

5.6.1. The demolition/removal of the pre-existing dwelling may lead to larger machinery entering the RPA of T1, T2 and T3, which will likely lead to soil compaction of the trees.

5.6.2. Machinery and plant that enters the RPA's of T1 to T3 whilst operating on site during the development works, as well as the storage of building materials, will likely lead to soil/ground compaction to the detriment of the trees affected.

5.6.3. All the above trees are at risk from chemical leaching from materials, construction vehicles, plant and machinery.

5.6.4. Lowering the existing ground levels for the installation of the driveway will cause significant root damage/severance to T2 and potentially T1. The hydro trophic root growth – *roots growing towards water sources* – of T1 will likely lead to the tree roots system favoring the grassed area of the garden that the tree is located within. As tree roots are opportunistic, it is expected that there will be fewer significant roots that cross the footings and driveway of 27 Leigh Road, however, this does not mean there will not be roots present within the area of the proposed driveway installation.

5.6.5. Removal of the preexisting driveway walls and tarmac using conventional methods and machinery, such as heavy plant, will lead to root damage and/or severance.

5.6.6. T2 is in direct conflict with the proposed plans and will require removal before any work can commence.

5.7. Significance of Impacts

5.7.1. If significant root severance was to occur to the trees on site, it will likely lead to having a detrimental effect to the tree. Root loss of a tree reduces photosynthesis, thus slowing down the assimilation of CO₂ and the production of carbohydrates required for growing new roots. This will also put T1 at risk from severe drought stress in the future, especially if there are several dry seasons. The recovery rate is terribly slow which means both trees will be vulnerable to drought spells for several years after the severance occurred – possibly five years or more.

5.7.2. As previously stated, all trees recorded within the survey are at risk of soil compaction from plant, machinery and construction vehicles that may operate on site, and the constant footfall from the operatives carrying out their duties.

The ideal soil mix for trees is 45% soil particles, 5% organic matter and 50% air and water. If there is excessive traffic or footfall on the tree root zone, then the soil is squashed (compacted) reducing the space for air and/or water. This will ultimately lead to several symptomatic signs (sparse foliage on the tips of the branches, prolific epicormic in the inner tree crown, crown die-back/retracing and significant deadwood) that compaction is having a detrimental effect on the tree.

5.7.3. The impact the development poses to the trees will not be significant for the long-term health if all the proposed works are carried out to the recommendations that are outlined below and considering that the proposed works will be carried out outside of the Root Protection Area (RPA) where possible.

5.8. Recommended Protection Measures and Method of Working

Development of Existing property and Excavation of the Driveway

5.8.1. Category C tree – T2 – is to be removed.

5.8.2. Existing trees that are to be retained on site are to be protected by barriers (default specification as outlined within BS 5837: 2012 Sec 6.2.2.2) as outlined within TPP01 before any materials or machinery are brought onto the site, and before any demolition, development or stripping of soil commences and remain in place until the completion. The protected areas of the development site should be regarded as sacrosanct, and once the barriers and ground protection are installed, should not be altered or removed without prior recommendation by the project arboriculturist and, where necessary, approval from the local planning authority. (BS 5837: 2012 Sec 6.2.1.5) Arboriculturist to confirm barriers and stem protection has been correctly set out prior to any works commencing.

5.8.3. Prior to any demolition works or soil stripping, four (4) trial pits of L 500mm x W 300mm x D 600mm are to be excavated by hand (as shown within the TPP01), using hand tools only to establish the presence and/or severity of roots of T1. If significant root presence is established (roots with a diameter of 25mm or greater), no root severance/damage must occur without first consulting an arboriculturalist and/or Local Authority representative. Roots or clumps of roots that are 25mm or greater that may be present can only be severed with prior approval of the

arboriculturalist and/or Local Authority representative, however, roots that are 24mm or smaller can be severed in the presence of an arboriculturalist. Roots being present does not mean that they will require severance, if they are at an acceptable depth, then other solutions can be discussed such as the use of a cellular confinement system and level changes. Ground protection may be required whilst building materials are being stored, if this is the case, then 150mm of woodchip is to be laid and scaffold planks supported by a timber frame is to be used. The requirement of ground protection can be discussed upon the findings of the trial pits.

5.8.4. Damage and root severance to T3 by removing the soil and lowering the ground level for the driveway is unavoidable, however, the overall root volume that will be lost due to root severance (<20% root volume) is expected to be minimal, any roots discovered by the excavation can be severed. A strip at 0.1m from where the proposed footing/edge of the new driveway is to be located is to be excavated by hand, using hand tools or soil displacement tools (air spade/lance) to a depth of 600mm, any roots discovered can be cut using a sharp saw or secateurs.

5.8.5. All skips, construction vehicles, plant and machinery, building materials and chemicals must be stored within the area shown in the TPP01 once the levels have been lowered. Soil bunding or a supporting framework covered in heavy duty plastic sheeting will be installed where there is a risk of spillages contaminating the trees RPA. This specifically applies to cement mixing areas. Building materials shall be ordered as when needed to accommodate the small area.

5.8.6. As a precautionary measure, the pre-existing tarmac must stay in situ throughout the development to act as temporary ground protection. Where the existing tarmac drive is scheduled for removal, care should be taken not to disturb potential tree roots that might be present beneath it. Hand-held tools or appropriate machinery should be used to remove the existing surface, working backwards over the area, so that the machine is not moving over the exposed ground' as outlined within BS 5837: 2012 sec 7.3.6. No excavation to be carried out below the existing make up levels.

5.8.7. Where existing wall, north side of existing driveway, is to be removed within the RPA's of the existing trees, no excavation to be carried out below the existing make up or foundation levels.

5.8.8. Once development of the dwellings and hard landscaping is completed, the security fencing can be removed to allow for any soft landscaping to take place. All landscaping works within the RPA of the retained trees must be carried out with hand tools only, no machinery or plant is to be used, and must not enter the RPA of any tree or woodland group.

5.8.9. To accommodate the removal of T2, a minimum of two replacement trees must be replanted. Tree species suited for the location are Hawthorne spp. If any tree is to fail within the first five years from date of planting, then the tree must be replaced.

5.8.9. Where fuel or other chemicals are stored on site, a risk assessment will be carried out to identify if emergency spillage kits are needed to restrict the environmental impact of accidents. Soil bunding or a supporting framework covered in heavy in duty plastic sheeting will be installed where there is a risk of spillages contaminating the trees RPA. This specifically applies to cement mixing areas.

5.8.10

Order of Arboricultural Mitigation Works	
<i>All works detailed above must be carried out in the order below, unless otherwise specified by the arboriculturalist</i>	
1.	Tree removal
2.	Security fence is to be installed
3.	Trial pits are to be excavated
4.	Root pruning works
5.	Primary development works can commence
6.	On completion of the primary development works, and with the prior approval of the arboriculturalist, security fencing can be removed
7.	Soft landscaping to commence
8.	Planting of the replacement trees

5.9. Direct Loss

5.9.1. The proposed development and the current site layout will result in the loss of one tree.

5.10. Trees Unsuitable for Retention (Category 'U')

5.10.1. There is one.

Section 6.0: General Working Methods for Surveyed Trees

6.01. The following guidance offers general working methods in accordance with the following methods & measures and BS 5837:2012 guidance. Site specific method of working have been outlined within section 5 above and would prevail if there is any conflict with the below.

6.1. Barriers and Ground Protection

6.1.1. Existing trees that are being retained on site to be protected by barriers and ground protection where shown within the Appendix C (TPP) before any materials or machinery are brought onto the site, and before any demolition, development or stripping of soil commences and remain in place until the completion.

6.1.2. The protected areas of the development site should be regarded as sacrosanct, and once the barriers and ground protection are installed, should not be altered or removed without prior recommendation by the project arboriculturist and, where necessary, approval from the local planning authority.

6.1.3. (BS 5837: 2012 Sec 6.2.1.5) Arboriculturist to confirm barriers and stem protection has been correctly set out.

6.1.4. The default specifications should consist of a vertical and horizontal scaffold framework, well braced to resist impact, as illustrated in Appendix D in accordance with the BS 5837: 2012. Vertical tubes should be spaced at a maximum of 3m and driven securely into the ground. Where the site circumstances and associated risk of damaging incursion into the RPA do not necessitate the default level of protection, stabilizer struts should be secured with ground pins or mounted on a block tray as shown figure b of the Appendix D.

6.1.5. Existing hard surfacing within the RPA's of the existing trees that is not proposed for re-use as part of the proposed development should be retained to act as temporary ground protection during construction, rather than being removed during demolition where possible.

6.1.6. Where the option above is not achievable or unmade ground would be exposed to construction damage within the RPA's of the existing trees, RPA's to be protected by using inter-linked ground protection board placed on top of a 150mm depth woodchip, laid onto a geotextile membrane for pedestrian-operated plant up to gross weight of 2t or an alternative system (e.g. proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice for wheeled or tracked construction traffic exceeding 2t gross weight.

6.2. Demolition and Removal of existing structures and hard surfacing within the RPA's

6.2.1. Where an existing hard surface or feature such as wall is scheduled for removal, care should be taken not to disturb tree roots that might be present beneath it. Hand-held tools or appropriate machinery should be used (under arboricultural supervision) to remove the existing surface, working backwards over the area, so that the machine is not moving over the exposed ground' as outlined within BS 5837: 2012 sec 7.3.6.

6.2.2. Where existing hard surface or wall is to be removed within the RPA's of the existing trees, no excavation to be carried out below the existing make up or foundation levels unless otherwise specified.

6.2.3. The initial 'breaking up' of any hard surface is to be undertaken with low impact pneumatic tools (not breakers attached to diggers or JCB's) or by hand if possible.

6.2.4. The removal of debris should be carried out by hand where possible.

6.2.5. All plant, machinery and vehicles that are operating on site that are engaged in the demolition should work outside the RPA's, on ground protection or existing hard surfaced areas.

6.2.6. Where trees stand adjacent to structures to be removed, the demolition should be undertaken inwards within the footprint of the existing building (often referred to as "top down, pull back").

6.2.8. Where demolition is proposed on a site where trees are to be retained, access facilitation pruning should be undertaken as necessary to prevent injurious contact between demolition plant and the tree(s). In some cases, working space may be provided by temporarily tying back tree branches. Pruning or tying should be undertaken in accordance with a specification prepared by an arboriculturist.

6.3. Avoiding Physical Damage to Roots

6.3.1. In accordance with BS 5837 2012 sec 7.2.2- 7.2.4) the following guidance is to be adhered to when retained tree roots are exposed.

6.3.2. All excavations work within the existing soft landscaped areas that are within the RPA's is to be undertaken carefully and with the use of hand tools and compressed air soil displacement methods.

6.3.3. 'Roots, whilst exposed, should immediately be wrapped or covered to prevent desiccation and to protect them from rapid temperature changes. Any wrapping should be removed prior to backfilling, which should take place as soon as possible.

6.3.4. Roots smaller than 25 mm diameter may be pruned back, making a clean cut with a suitable sharp tool (e.g. bypass secateurs or handsaw), except where they occur in clumps. Roots occurring in clumps or of 25 mm diameter and over should be severed only following consultation with an arboricultural consultant as such roots might be essential to the tree's health and stability.

6.3.5. Roots bigger than 25mm diameter should not be cut as this would have major impact on the health and stability of the trees.

6.3.6. Prior to backfilling, retained roots should be surrounded with topsoil or un-compacted sharp sand (builders' sand should not be used because of its high salt content, which is toxic to tree roots), or other loose inert granular fill, before soil or other suitable material is replaced. This material should be free of contaminants and other foreign objects potentially injurious to tree roots'.

6.4. Permanent hard surfacing within the RPA's

6.4.1. Where an existing hard surface is to be replaced with new, no excavation is to be carried out beyond the existing make up levels.

6.4.2. All works to be carried out by hand-held tools or appropriate machinery.

6.4.3. Existing hard surface to be retained until new surface or topsoil to be laid in order to protect the RPA's of the existing trees.

6.4.4. Ground protection to be installed within the root protection areas within the RPA's of the existing trees if existing hard surface is removed.

6.4.5. The new surface to be constructed with machinery working forward from the surface as it is construction.

6.4.5. All excavation in relation to the installation of the new hard surfacing to be carried out in accordance with the section 4.3 and 4.4 above.

6.5. Additional precautions outside the exclusion zones

6.5.1. (BS 5837:2012 sec 6.2.4.2) 'Fires on sites should be avoided if possible. Where they are unavoidable, they should not be lit in a position where heat could affect foliage or branches. The potential size of a fire and the wind direction should be taken into account when determining its location and it should be attended at all times until safe enough to leave'.

6.5.2. (BS 5837:2012 sec 6.2.4.3) 'Any materials whose accidental spillage would cause damage to a tree should be stored and handled well away from the outer edge of its RPA'.

6.6. Arboricultural Site Supervision/ Monitoring

6.6.1. In accordance with BS 5837:2012 sec 6.3 there should be an 'audible system of arboricultural site monitoring. This should extend to arboricultural supervision whenever construction and development activity is to take place within or adjacent to any RPA'.

Appendix A – Tree Survey Schedule

Key to Survey Criteria and Headings

- Reference Number — Identification Given to individual trees (i.e. T1 to T4) / Groups (i.e. G1 to G4)
- Species (Common Name Reference) — Individual Tree Species Name
- Stem Diameter — Diameter of stem taken at 1.5 meters from ground level (taken in mm)
- Branch Spread — N (north) / E (east) / S (south) / W (west)
- Existing Height Above Ground Level — Branch (first significant branch and direction of growth) / Canopy
- Life Stage — Y = Young / SM = Semi-Mature / EM = Early Mature / M = Mature / OM = Over Mature
- General Observations — Structural / physiological condition & preliminary management recommendations
- Estimated Remaining Contributions (yrs) — <10, 10+, 20+, 40+
- Category Grading — In accordance with cascade chart for tree quality assurance
- #T — Due to restricted access, partial or all tree data is an estimate

Main category

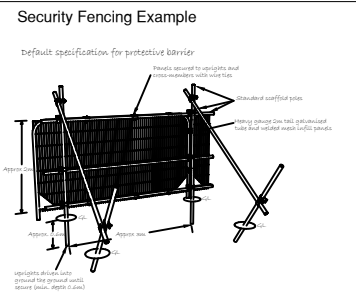
U	Trees unsuitable for retention
A	Trees to be considered for retention
B	
C	

Sub Category

1	Mainly Arboricultural Qualities
2	Mainly Landscape Quality's
3	Mainly Cultural Values, Including Conservational

Reference Number	Common Species Name (Scientific name)	Height (m)	Stem Diameter (mm)			Branch Spread (m)				Existing height above ground level		Life Stage (Age)	General Observations		Estimated Remaining Contribution (Yrs)	Category Grading	Root Protection Area (m2)
			Multistem (MS)	Comb MS	Singlestem (SS)	(N)	E	(S)	(W)	Branch & Direction	Canopy		Structural / Physiological condition	Preliminary Management recommendations			
T1	Horse chestnut (<i>Aesculus hippocastanum</i>)	18.3			1267	12	9	9	8.5	2 N	2.4	M	Previously pollarded, open cavity on western stem	None at present	20+	A2	726
T2	Hawthorn (<i>Crataegus sp</i>)	7.5			385	4.5	5.5	4	4.5	1 W	2	M	Prolific ivy, poor branch structure	None at present	10+	C1	67
T3	Horse chestnut (<i>Aesculus hippocastanum</i>)	17.8			994	7	10	7	7.5	2.1 N	3.7	M	None at present	None at present	20+	A2	447

Appendix B – Tree Protection Plan



Security fencing is to be installed prior to any works commencing - security fencing must be installed to the specifications outlined within the BS5837 Recommendations. Area within fencing is become a Construction Exclusion Zone (CEZ) and must be treated sacrosanct. Fencing must not be moved or removed without prior approval of the project arboriculturalist

Where existing wall is to be removed within the RPA's of the existing trees, no excavation to be carried out below the existing make up or foundation levels.

As a precautionary measure, the pre-existing tarmac must stay in situ throughout the development to act as temporary ground protection.

Where the existing tarmac drive is scheduled for removal, care should be taken not to disturb potential tree roots that might be present beneath it. Hand-held tools or appropriate machinery should be used to remove the existing surface, working backwards over the area, so that the machine is not moving over the exposed ground' as outlined within BS 5837: 2012 sec 7.3.6.

Prior to any demolition works or soil stripping, four (4) trial pits of L 500mm x W 300mm x D 600mm are to be excavated by hand, using hand tools only to establish the presence and/or severity of roots of T1.

If significant root presence is established (roots with a diameter of 25mm or greater), no root severance/damage must occur without first consulting an arboriculturalist and/or Local Authority representative.

Roots or clumps of roots that are 25mm or greater that may be present can only be severed with prior approval of the arboriculturalist and/or Local Authority representative, however, roots that are 24mm or smaller can be severed in the presence of an arboriculturalist.

Roots being present does not mean that they will certainly require severance, if they are at an acceptable depth, then other solutions can be discussed such as the use of a cellular confinement system and level changes.

All skips, construction vehicles, plant and machinery, building materials and chemicals must be stored within this area once the levels have been lowered. All construction vehicles, plant and machinery must be fueled away from the RPA's area. Soil bunding or a supporting framework covered in heavy in duty plastic sheeting will be installed where there is a risk of spillages contaminating the trees RPA. This specifically applies to cement mixing areas. Building materials shall be ordered as when needed to accommodate the small area.

A strip at 0.1m from where the proposed footing is to be located is to be excavated by hand, using hand tools or soil displacement tools (air spade/lance) to a depth of 600mm. As the overall volume of roots that are likely to be present are expected to be minimal (<20% of the total root volume for T1), any roots discovered by the excavation can be severed using a sharp saw or secateurs

54 Davis Way, Sidcup
London - DA14 5JR
tom@acornarbsurveys.co.uk
www.acornarbsurveys.co.uk
0208 302 9239
0750 793 6856

BS 5837 Legend

	Category A Tree
	Category C Tree
	Root Protection Area
	Tree Canopy
	Tree to be Removed
	Trial Pits
	Construction Exclusion Zone
	Root Prune
	Area of Root Loss
	Security Fencing
	Replacement Tree

TREE SURVEY SCHEDULE FORM

Client: Robin Lister
Date of Survey: 15/02/2022
Arboricultural Consultant/Surveyor: Thomas Brown

Tree ID	Tree Name	Category	Height	DBH	Health	Location	Notes
1	T1	A	15m	150mm	Good	Front Garden	Large tree, well established
2	T2	A	10m	100mm	Good	Back Garden	Medium tree, well established
3	T3	A	8m	80mm	Good	Side Garden	Small tree, well established
4	T4	C	5m	50mm	Fair	Front Garden	Small tree, fair health
5	T5	C	4m	40mm	Fair	Back Garden	Small tree, fair health
6	T6	C	3m	30mm	Fair	Side Garden	Small tree, fair health
7	T7	C	2m	20mm	Fair	Front Garden	Small tree, fair health
8	T8	C	1.5m	15mm	Fair	Back Garden	Small tree, fair health
9	T9	C	1.2m	12mm	Fair	Side Garden	Small tree, fair health
10	T10	C	1m	10mm	Fair	Front Garden	Small tree, fair health

BS5837:2012 Trees in relation to construction - Categories and definitions

Category A - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category B - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category C - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category D - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category E - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category F - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category G - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category H - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category I - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category J - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category K - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category L - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category M - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category N - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category O - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category P - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category Q - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category R - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category S - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category T - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category U - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category V - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category W - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category X - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category Y - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

Category Z - Trees of moderate quality and value, those in such a position as to be able to be retained with a minimum of work.

PROJECT NAME
27 Leigh Road

PROJECT No

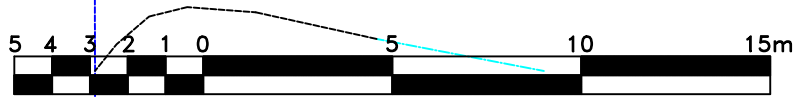
SCALE
A3 @ 1:200

CHK'D
TGB - 25/02/2022

DRAWING NAME
Tree Protection Plan

DWG No
TPP01

REV No



Appendix C – BS5837 Cascade Chart

Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)	Identification on plan
Trees unsuitable for retention (see Note)		
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	- Trees that have a serious, irreparable, structural defect, such that their early loss is expected due to collapse, including those that will become unstable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) - Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline - Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.	
Trees to be considered for retention		
1 Mainly arboricultural qualities		
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	
2 Mainly landscape qualities		
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	
3 Mainly cultural values, including conservation		
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	

Appendix D – Tree Protection Fencing Example

Figure 2 Default specification for protective barrier

