



# Arboricultural Impact Assessment BS5837:2012

Epsom Lodge, 1 Burgh Heath Road, KT17 4LW

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# Arboricultural Impact Assessment BS5837:2012

Epsom Lodge, 1 Burgh Heath Road, KT17 4LW

Ref: AEL-18298-AIA

Reuben Hayes - Apex Environmental

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## Contact details

Client	Address	Epsom Lodge, 1 Burgh Heath Road, KT17 4LW
	Name	Mr K Middleton
	Contact	
Architect	Company	Aura Architecture
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	Contact	
	Email	

Report History					
Version	Date	Author	Checked by	Reason	Status
0.1	19/11	RJH	RJH	Approval	Draft
A	19/11	RJH	RJH	Submission	Final
B	10/12	RJH	RJH	Amendment	Final

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## 1. Summary

### Outline of proposal

Extensions to the exiting property to create ten individual apartments, with a basement parking area.

### Age class of trees

Young	Semi Mature	Middle Aged	Early Mature	Mature	Over Mature	TOTAL
			1			1

### Category of trees

A			B			C			U
1	2	3	1	2	3	1	2	3	
			1						

### Works required

Tree Ref:	Category	Works required	Development	Arboricultural
T.1	B1	Fell to ground and remove stump	Yes	Likely



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## 2. Particulars of instruction

- 2.1 This report has been prepared to discharge the instruction of the client, Mr K Middleton 'The Client' in respect of detailed planning permission at Epsom Lodge, 1 Burgh Heath Road, KT17 4LW
- 2.2 The Client has commissioned a tree survey in compliance with *BS5837:2012 – Trees in relation to design, demolition and construction – Recommendations* to prepare a tree survey, Arboricultural Constraints Assessment, Arboricultural Impact Assessment, Tree Protection Plan and heads and terms of a Method Statement for the trees at the site.
- 2.3 The site survey was carried out on the 6<sup>th</sup> November 2020. The relevant qualitative and quantitative tree data and information was recorded to assess the condition of the trees and their constraints upon the proposed development and to provide a summary of any proposed protection and construction specification required.
- 2.4 I have based this report on my site observations and the information I have been provided with, and I have come to conclusions in the light of my experience as an arboriculturist. I include a summary of my experience and qualifications in Appendix V.

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2.5 All information given is in accordance with *BS5837:2012 – Trees in relation to design, demolition and construction – Recommendations*.

- I. Identification of tree by number value (collates with the associated plans)
- II. Common tree species
- III. Height (m)
- IV. Stem diameter (mm) at 1.5m above ground using a DBH tape (or as per BS5837 fig C.1)
- V. Branch spread to the four cardinal points (m)
- VI. Existing height above ground of first branch and direction (m)
- VII. Existing height above ground of canopy (m)
- VIII. Life stage (Young, Semi Mature, Early Mature, Mature, Over Mature)
- IX. Estimated remaining contribution (yrs) <10, 10+, 20+, 40+
- X. General observations, condition and preliminary management recommendations, physical condition and structural defects
- XI. Category (as per BS5837 Table 1)
- XII. Root Protection Area (RPA) radius (m)
- XIII. Root Protection Area (RPA) m<sup>2</sup>



## 3. Caveats

This advice and all appendices are subject to the following caveats:

- 3.1. This report is nullified if any remedial works are undertaken on any area of the site, on or after the date of study/survey.
- 3.2. The report is only valid on the date on inspection and any deletion, editing or alteration will void it in its entirety.
- 3.3. Apex Environmental Ltd does not assume responsibility for any works undertaken on the basis of the recommendations in this report or for any legal matters that may arise as a consequence.
- 3.4. The report is not valid in adverse or unpredictable weather conditions or for any failure due to *force majeure*.
- 3.5. Apex Environmental Ltd does not assume liability for any misuse, misinterpretation or misrepresentation of information contained in this report.
- 3.6. This report has been compiled using only the information made available to the author at the date of inspection.
- 3.7. Unless described as 'detailed', this assessment is of a preliminary nature. It was conducted from ground only, the tree(s) were not climbed or inspected below ground level (including roots). There was no use of decay detection equipment, and only basic surveying instruments were used.
- 3.8. At the time of writing, the author did not have any information as to the integrity of the main structure, its annexes or the drainage system.
- 3.9. Water supply/drainage systems, if damaged, can allow roots to penetrate. However, if the system is sound, or after repair, roots have little capacity to access/damage underground services.
- 3.10. Any doubt as to the structural condition of properties on site would require the advice of a structural engineer.



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## 4. Scope of report

- 4.1 The aim of this report is to give guidance under *BS5837:2012 – Trees in relation to design, demolition and construction – Recommendations*. This will help to facilitate a harmonious and sustainable situation and long-term development.
- 4.2 The report will identify the value and quality of the woody vegetation on and within impacting distance of the site. All data gathered will be used to identify and address the impact that vegetation will have on the proposed development and the impact the development will have on the vegetation.

## 5. Documents supplied

Document title	Document Ref	Format	By whom	Date given
Epsom lodge-Sheet	18082	DWG	Architect	19/11/2020

## 6. Legal and policy information

### 6.1. Tree Protection Orders

The land is not protected by a Tree Preservation Order. It is advisable to check on any updated status before carrying out any works to trees.

### 6.2. Wildlife protection

Under the Wildlife & Countryside Act 1981 and the Countryside and Rights of Way Act 2000, it is a criminal offence under normal circumstances to disturb or destroy – whether intentional or unintentional - the nesting sites of wild birds or the roost sites of bats. You should therefore avoid carrying out significant tree works during the bird nesting season [mid- March to end of July], and you should ensure that trees are professionally surveyed for signs of bat roosts and/or bat activity before starting any



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tree work. Further advice on protected species can be obtained from the local office of Natural England.

## 6.3. Felling licence

Tree felling can also be restricted under the Forestry Act 1967. Under this act, there is an exemption from the need for a felling licence for 'Felling necessary for the prevention of danger or the prevention or abatement of a nuisance'.

If full planning consent is granted for the current proposal, then any trees that need to be felled in order to implement the approved plans are exempt from this statutory protection. It should also be considered that any proposed tree works detailed in the tree schedule are also implemented as part of the planning decision consent.

## 6.4. Conservation Area Protection

The land is within a Conservation Area. Any works outside of those listed within the report will require a separate application.



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## 7. Site description

- 7.1 The site is a current nursing home, which has created an adapted building. There is a large parking area to the front of the building, and this is relatively flat. The house is at a slightly higher level than the road and the rear garden levels off to create a flat area. The property is within 1m of Epsom town centre.
- 7.2 The site location is shown in red.



Source: [www.google.com](http://www.google.com)

### 7.3 Soil assessment

The assessment determines whether the soil is shrinkable. If it is, trees and other vegetation have the potential to cause indirect damage to structures. In such cases, further assessments should be carried out and the design of foundations should be considered by a structural engineer.

No information has been supplied on the soil assessment, details of which will need to be obtained and passed to the arboricultural consultant and structural engineer before the submission of any Arboricultural Method Statement.



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## 7.4 Trees surveyed

There is a total of 1 tree was inspected. This report has only listed the trees in connection to the main development on the site.

## 8. Tree and vegetation findings

8.1 The tree survey has been carried out in accordance with *BS5837:2012 – Trees in relation to design, demolition and construction – Recommendations*, Section 4.4.

### 8.2 Tree categorisation method

The purpose of this method is to identify the quality and value of the existing tree stock, allowing informed decisions to be made about which trees should be removed or retained in the event of development occurring.

A full tree survey has been included in appendix I.

**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.

**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 150mm.

**Category B** – Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

**Category A** – Trees of high quality with an estimated remaining life expectancy of at least 40 years.

8.3 Any works with regards to the overall application have been listed in this report.



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## 8.4 Findings

Young	Semi Mature	Middle Aged	Early Mature	Mature	Over Mature	TOTAL
			1			

A			B			C			U
1	2	3	1	2	3	1	2	3	
			1						

### Significant trees on site

The only tree on site is the Pine tree to the front.

This tree is an early mature tree with future growth potential, there are several issues with the tree and its current location regardless of any planning proposal:

1. The current height of the tree is 14m and has an ability to increase in size to around 30m. This is doubling the size of the tree and this will also increase the trunk size leading to further damage to the boundary wall. The root system will also need to increase in size leading to more direct damage to the driveway and also potential damage to the building.
2. The tree has been planted to the front of the property and is currently causing localised direct damage to the hardstanding and to the boundary wall. If this is not addressed, then this damage will only continue, and future management of the area will require patching of the driveway and wall. This may be an adverse effect on the tree, or cause damage to the roots. There were no obvious signs of damage to the main building at this stage. The bedrock is showing as a chalk formation so there is a very low likelihood of shrinkage within the soils from the tree.
3. The tree is within 5m and the RPA is showing as being up and around the building. There is a possible likelihood of direct damaging of the roots to the house. Due to the continued growth of the tree and its increase in rooting systems.



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4. The canopy of the tree is close to the existing property and will need future management. The canopy is causing significant shading to the rooms to the front. This has not been addressed at this stage, but the canopy will need to be pruned back in the future to give clearance and some light to the rooms, especially given the current usage of the building.
5. It is also low over the road and will require crown lifting to the highway's specification of 3m over the pavement and 5.2m over the road. This is a Highway regulation and can be carried out under the exemptions of the Tree Preservation Order.
6. During the visit it was also noted that the needle drop was excessive over both the driveway and the road. This is a slip and trip hazard to the current residents and visitors, which the management would be responsible for under their duty of care. There is also a significant build up of needles and cones on the public footway and road which is also a slip or trip hazard.

Although the tree is a Category B tree, this is due to the flow chart and looking at the tree only. Given its full context and its local area, it would be seen that the tree is causing localised issues which would need to be addressed regardless of any planning application. The main concern from this tree is the damage to the driveway and needle fall. Both are putting the residents, visitors and staff at risk which needs to be addressed by the management team. Given it is also close to the building and will require pruning back to limit actionable nuisance and damage then it would be more appropriate to remove this tree.



## 9. Constraints posed by existing trees

The RPA and category of the trees retained on site are listed within the Tree Constraints Plan. This information is taken from above-ground site observations. Inspection chambers or other features that may hinder direct root growth have been indicated within the plan, and the indicated RPA has been amended as per *BS5837:2012 – Trees in relation to design, demolition and construction – Recommendations*, Section 5.2.1.

Further constraints imposed by trees include:

- Current and ultimate height and spread of tree(s).
- Species characteristic, including canopy type, density of foliage and species susceptibility to external factors such as honey dew, branch drop and fruit fall.
- Shading on property and gardens, or excessive light to rooms (as indicated within the Tree Shadow Plan).
- The presence of Tree Preservation Orders and the presence of Conservation Areas or other regulatory protection.
- Potential incompatibilities between the layout and trees.
- Working and access space needed for the construction of the proposed development. This might involve assess facilitation pruning, or the use of a height restriction to prohibit tall vehicles accessing a site containing trees with low canopies.
- The effect that construction requirements might have on the amenity value of trees, both on and near the site, including the effects of pruning to facilitate access and working space.
- The requirement to protect the overhanging canopies of trees where they could be damaged by machinery, vehicles, barriers or scaffolding, where it will be necessary to increase the extent of the tree protection barriers to contain the canopy.

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- Infrastructure requirements in relation to trees, e.g. easements for underground or above-ground apparatus, highway safety and visibility splays, and other infrastructural provisions, such as substations, refuse stores, lighting, signage, solar collectors, satellite dishes and CCTV sightlines.
- The proposed end use of the space adjacent to retained trees.
- The potential for new planting to provide mitigation for any losses.



## 10. Arboricultural Impact Assessment

### 10.1. Amenity value of the trees on site

The only tree of value is T.1 to the front of the property, and this has some localised damage to the hardstanding.

### 10.2. Facilitation pruning works

It would be necessary to crown lift the Pine tree and to possibly prune back from the building if there is a requirement to erect scaffolding. Scaffold requirements are 1.2m so the tree canopy would need to have a 1.5-2m clearance.

### 10.3. Storage of materials, siting of welfare units and contractor parking

It would be possible to locate the storage on the hardstanding and the contractor parking just behind. This is listed on the Tree Protection Plan.

### 10.4. Background to incursions between layout (foundations) and the trees for retention

The default position should be that structures are located outside of the RPA of trees to be retained. However, where there is an overriding justification for construction within the RPA, technical solutions might be available that prevent damage to the tree(s), as per *BS5837:2012 – Trees in relation to design, demolition and construction – Recommendations*, Section 5.3.1.

It should be demonstrated that the tree(s) can remain viable and that the area lost to encroachment can be compensated for elsewhere, contiguous with its RPA, and that a series of mitigation measures to improve the soil environment that is used by the tree for growth can be implemented.

On this basis and under previous BS5837 standards, it is sometimes acceptable to allow for encroachment of up to 10%. It should be possible to have viable grow areas on the other sides of the RPA which exceed 20%, thus compensating for the loss of viable rooting area. It would also be possible to carry out decomposition to the soils and add minerals and nutrients to aid root development in the viable areas.



## 10.5. Background to incursions between layout (drives, parking areas, paths, landscaping) and the trees for retention

Where permeant hard surfacing within the RPA is considered unavoidable, site-specific and specialist arboricultural and construction design advice should be sought to determine whether it is achievable without significant adverse impact on the trees.

The design should not require excavation into the soil, including through lowering of levels and or scraping, other than the removal, using hand tools, of any turf layer or other vegetation.

The structure of the hard surface should be designed to avoid localised compaction by evenly distributing the load.

New permanent hard surfacing should not exceed 20% of any existing unsurfaced ground within the RPA.

In order to maintain the soil volume moisture, the surface should be of permeable hard material (unless there is a risk of water logging of soils). The design should incorporate a three-dimensional design such as 'no-dig' Cell Web. Any 'no-dig' specification has been included within the Tree Protection Plan.

## 10.6. Understanding foundation techniques

The use of tradition strip footings can result in extensive root loss and should be avoided within the RPA. Specially engineered structures within RPAs should be justified if this enables the retention of good quality trees such as category A and B.

Root damage can be minimised by using piles, with site investigations used to determine their optimal location (avoiding damage to roots important for the stability of the tree). This should be carried out to a minimum depth of 600mm and can be undertaken either by hand tools or compressed air soil displacement.

The piles should be the smallest practical pile diameter to reduce the possibility of striking major tree roots. This also reduces the size of the rig requirements. When selecting the pile type, the need to protect the soil and adjacent roots from the potentially toxic effects of uncured concrete should be considered.



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The beams should be laid at or above ground level and cantilevered as necessary to avoid tree roots identified by site investigations.

Following any approval decision, details and specifications will be included within a full Arboricultural Method Statement.

Where a slab for a minor structure such as sheds or garden rooms is to be formed within the RPA, it should bear on existing ground level and should not exceed an area greater than 20% of the existing unsurfaced ground.

## 10.7. Incursions on this project

Tree reference number	Species	Category grading	RPA m <sup>2</sup>	Building Incursion (m <sup>2</sup> )	Paths Incursion (m <sup>2</sup> )	Driveway Incursion (m <sup>2</sup> )	Road Incursion (m <sup>2</sup> )	TOTAL %	Significance	Comments
T.1	Austrian pine	B1	191	70				36.6	Significant	There is current hardstanding around the tree which will have limited the rooting structure and it is likely there might be some reduction in the roots, however even with a slight root reduction the impact would still be considered as significant.

## 10.8. Potential tree removal to facilitate the development

The impact on the tree T.1 from this development will be 36.6%, as calculated from the plans and the available information. It is possible due to the hardstanding and the conditions around the tree, that its roots would not have developed as much as the standard rate and therefore the RPA of the tree may be slightly reduced. However, even if the tree roots have not been able to fully develop as much as shown the impact on the roots would still be able accepted limits.

It would not be possible to include any pile and beam solution due to the inclusion of the basement car park area.

There are also some issues with the tree including the distance to the house and boundary, also to the damage to the hardstanding.



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The distance to the house is just 5m and the canopy is touching the building. Regardless of the application the canopy of the tree will need to be pruned back to reduce any actionable nuisance. This would be to give a clearance of 2m and would reduce the canopy back to 3m. It is also low over the parking area and would need to be lifted to 3m.

The tree is close to the front boundary wall and causing some damage. The tree is also low over the pavement and the road and this will need to be crown lifted under the Highways Act to 3m over the pavement and 5.2m over the road. This would change the visual value of the tree.

There is current direct damage to the hard standing and lifting of the paving slabs. It is likely that the roots will be directly underneath the paving and will hinder any future landscaping. There will also be a significant root severance for the new driveway to the underground car parking area.

It is likely that this tree will need to be removed for this development. However, it is possible that the tree would have to be removed in due course given its size and distance to the house and public footway.

## 10.9. Inclusion of new infrastructure requirements

All new infrastructure will be routed to the existing where possible and any new services can be brought in direct from the road along the main driveway.

## 10.10. Mitigation of tree loss and new planting

It would be possible to plant with 2 new trees to the front and these would need to be small to medium size trees due to the confined soft landscaping areas.

## 10.11. Tree works

Tree Ref:	Category	Works required	Development	Arboricultural
T.1	B1	Fell to ground and remove stump	Yes	Likely

## 11. Concluding statement



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- 11.1 Having appraised the proposals and balanced the Standard's thinking with the will of our client's proposals, the author of this report can fully support this application. (Reason): all reasonable concerns have been satisfied to the fullest standard.
- 11.2 The AMS will not be required.

This concludes the report. If I can be of further assistance, please do not hesitate to contact me.

Signature:  Date: 19<sup>th</sup> November 2020

Reuben Hayes M.Arbor.A; CMgr MCMi  
Managing Director for and on behalf of Apex Environmental Limited

## 12. Arboricultural terms

- 12.1. An 'arboriculturist' is a person who has, through relevant education, training and experience, gained recognized qualifications and expertise in the field of trees.
- 12.2. A 'competent person' is someone who has had training and experience relevant to the matter being addressed and an understanding of the requirements of the particular task in question. A competent person is expected to be able to advise on the best means by which the recommendations of *BS5837:2012 – Trees in relation to design, demolition and construction – Recommendations* may be implemented.
- 12.3. A 'tree survey' in the context of planning and development is taken to mean an assessment of the tree stock on site (or within the area shown where appropriate), as individuals or groups. (This is undertaken independent of and prior to any knowledge of a scheme being produced). Management recommendations in the tree survey schedule reflect the structural and physiological condition of the trees only. It is essential that the trees are assessed objectively and without reference to site layout proposals.
- 12.4. The 'construction' is a site-based operation with the potential to affect existing trees.
- 12.5. A 'Root Protection Area', or 'RPA', is a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority. The RPA area is worked out on a mathematical basis. It is listed in appendix III
- 12.6. 'Construction Exclusion Zone', or '(CEZ)', is based upon the RPA and forms the exclusion zone to which access is prohibited during the project phase.
- 12.7. A 'Tree Constraints Plan', or TCP, is a scaled plan prepared by an arboriculturist showing the RPA and the accurate canopy spread of a tree, along with information to identify the tree by reference to a survey schedule. It will also



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identify any under and above ground constraints. The author of this report will produce this using AutoCAD.

- 12.8. An 'Arboricultural Impact Assessment', or 'AIA', is a study or report undertaken by the project arboriculturist. It is a detailed evaluation of the direct and indirect effects of the proposed development on the tree(s) and the potential future maintenance of the tree(s). Where necessary, it recommends mitigation. The assessment takes account of the effects of any tree loss required to implement the design, and any potentially damaging activities that are proposed in the vicinity of retained trees.
- 12.9. An 'Arboricultural Method Statement', or 'AMS', is a methodology for the implementation of any aspect of development that has the potential to result in loss of or damage to a tree. The AMS is likely to include details of an on-site tree protection monitoring regime.
- 12.10. A 'Tree Protection Plan', or 'TPP', is a scale plan that is superimposed on a layout plan. It is based on the topographical survey, showing all hard surfacing and other existing structures within the RPA. The plan indicates the precise location of protective barriers that need to be erected in order to form a construction exclusion zone around the retained trees.
- 12.11. Other plans and documents may be referred to and annexed where appropriate.
- 12.12. 'Access facilitation pruning' is a one-off tree pruning operation, the nature and effects of which are without significant adverse impact on the trees' physiology or amenity value, which is directly necessary to provide access for operations on site.
- 12.13. 'Services' are any above or below ground structure or apparatus required for utility provision. Examples include drainage, gas supplies, ground source heat pumps, CCTV and satellite communications.
- 12.14. 'Stem' is the principal above-ground structural component(s) of a tree that supports its branches.
- 12.15. 'Structures' are manufactured objects, such as a building, carriageway, path, wall, service runs, and built or excavated earthworks.



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- 12.16. A 'veteran tree' is recognized by a criterion set by *BS2998:2010, Tree Work – Recommendations*. It must show signs of biological, cultural or aesthetic value that are characteristic of, but not limited to, individuals surviving beyond the typical age range for the species concerned.



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## Appendix I – Tree survey

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Tree survey undertaken to *BS5837:2012 Trees in relation to construction – recommendations*

Tree No.	Tree identification method in sequential order – TXXX=Existing trees, GX=Group of trees, HX=Hedgerow
Species	Species
Height in (m)	Approximate height of tree in metres
DBH in (mm)	Stem diameter in millimetres taken at 1.5 metres above ground level. AV=average diameter (see appendix III)
Branch spread in (m) N - E - S – W	Branch spread in metres reflecting the spread at the four principal compass points. N/A= Not applicable in woodland settings
Existing height above ground in (m)	Height in metres of crown clearance above existing ground level. To include first significant branch and direction of growth (e.g. 2.5 – N) Height of lower form of Canopy to inform current ground clearance, crown/stem ratio and shading
Life stage	Age classification (Y=young, SM=semi-mature, EM=early-mature, M=mature, LM=late-mature, OM=over-mature)
Est. remain years	Approximate years remaining (+40=minimum of 40 years, +20=minimum of 20 years, +10=minimum of 10 years, <10 less than 10 years)
General observations	Condition of tree (good, fair, poor, dead), structural and/or physiological condition, and/or preliminary management recommendations
Preliminary management recommendations	Works needed in order to retain tree in current setting or where works would be needed in order to facilitate development
Physical condition and structural condition	Physiological condition (good, fair, poor, dead), to include structural defects such as the presence of any decay, fungal issues, pathogens and defects)
RPA in (m <sup>2</sup> )	Area directly calculated from the DBH measurement (single stem/multiple stem variant, as outlined within the Standard, see appendix III)



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Tree ID	Common Name	Stem Diameter [mm]	Tree Height [m]	(N) Branch Spread [m]	(S) Branch Spread [m]	(E) Branch Spread [m]	(W) Branch Spread [m]	Life Stage	Physiological Condition	Structural Condition	Height of Canopy Above Ground Level [m]	Height of First Significant Branch [m]	Direction of First Significant Branch	Comments	Recommendations	Estimated Remaining Contribution	Quality Category	Quality Sub-Category	Root Protection Area [m]
1	Austrian pine	650	14	5	5.5	5.5	6	Early-mature	Good	Good	1.5	3.5	S	High value amenity tree		Medium (20 to 40 years)	B	1	7.8



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## Appendix II – Photographs



AEL-18298-PIC1 – Showing T.1 to the front of the house.



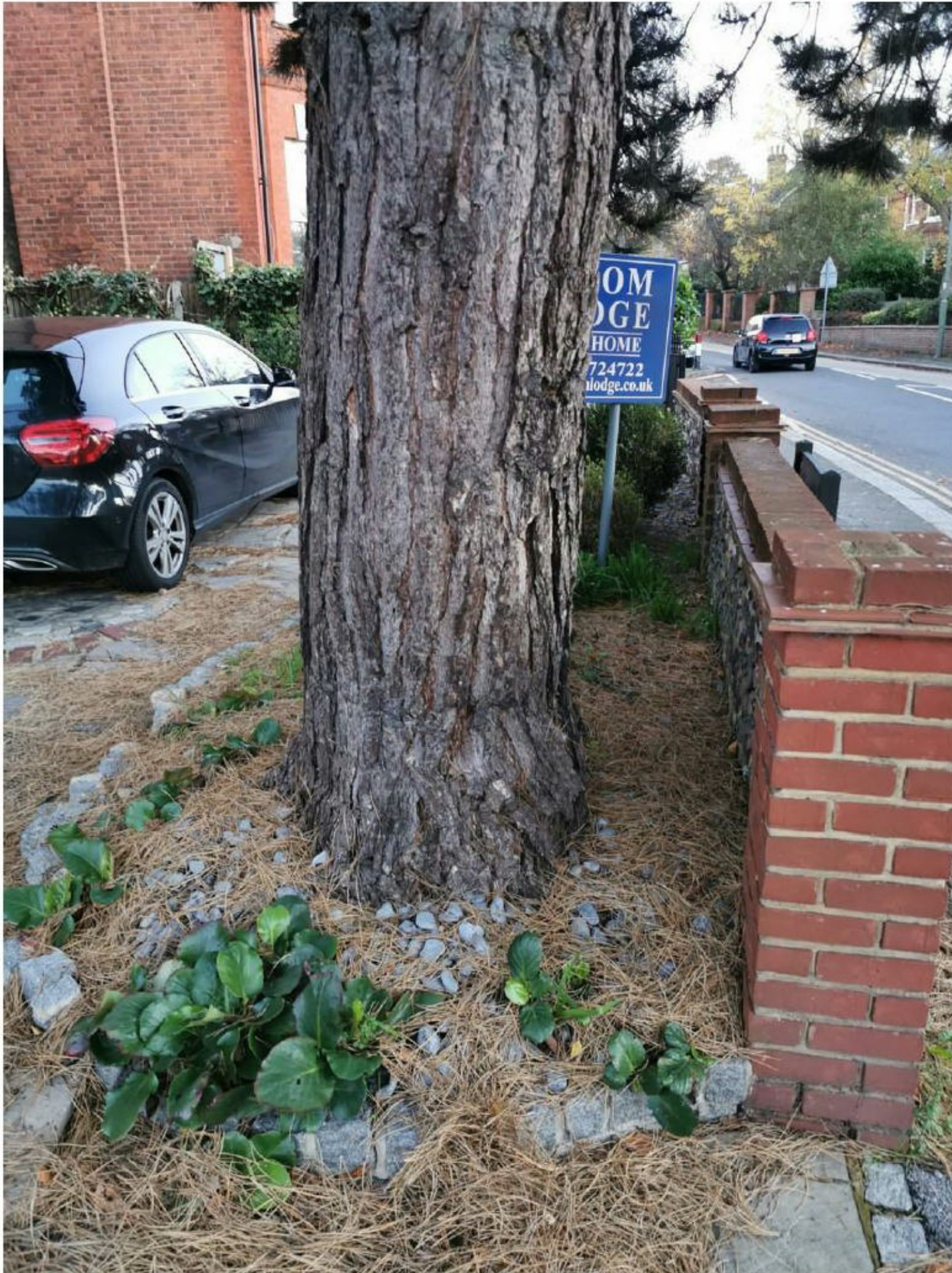
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AEL-18298-PIC2 – Showing tree in proximity to the wall.



## Appendix III – Tree categorisation table (BS5837:2012)

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
<b>Category U</b> 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.	<ul style="list-style-type: none"> <li>Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)</li> <li>Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline</li> <li>Trees infected with pathogens of significance to the health and/or safety of their trees nearby, or very low quality trees suppressing adjacent trees of better quality.</li> </ul> <p><i>(note: Category U trees can have existing or potential conservation value which it might be desirable to preserve)</i></p>			
Trees to be considered for retention				
	1. Mainly arboricultural qualities	2. Mainly landscape qualities	3. Mainly cultural values, including conservation	
<b>Category A</b> 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)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	
<b>Category B</b> Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), which that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	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.	Trees with material conservation or other cultural value	



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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 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	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	Trees with no material conservation or other cultural value	
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## Appendix IV – Bibliography

British Standards Institution (2010), *BS3998 Tree Work - Recommendations*

British Standards Institution (2012), *BS5837 Trees in relation to design, demolition and construction - Recommendations*



## Appendix V – About the author

Author of this report: Mr Reuben Hayes, M.Arbor.A; CMgr MCMi

### **Qualifications**

Quantified Tree Risk Assessment, 2018 – QTRA

CMI Management and Leadership (Level 5) – May 2015

Professional Tree Inspection, 2009 – Lantra

Higher National Diploma, Arboriculture (HND), July 2003 – Warwickshire College

National Diploma (Tree Management and Arboriculture), 2000 – Warwickshire College

### **Experience**

Apex Environmental Ltd: May 2013 – Present

Cannock Chase Council: July 2010 – Present

RJH Silvicultural and Arboricultural Services Ltd: 2008 – 2010

London Borough of Camden: January 2005 – July 2010

Three Rivers District Council: March 2003 – January 2005

Forestry Commission: 1997 – 1998

National Trust

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### **Membership of professional bodies**

Professional Member of the Arboricultural Association

Professional Member of Consulting Arborist Society (CAS)

Associate Member of the Institute of Chartered Foresters

Fully accredited Chartered Manager of Chartered Management Institute (CMI)

Member of Institute of Directors (IoD)



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