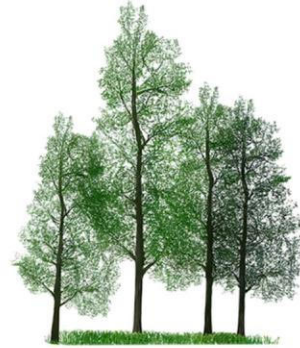


Thursday, 24 April 2025



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ARBORICULTURAL DEVELOPMENT REPORT

Development tree report for Mr S. Hill

Site Address:
102 Redhatch Drive,
Earley,
Berkshire,
RG6 5QR

Prepared by Steve Wood (O.N.D.
Arboriculture M.Arbor.A.) for and behalf
of Wood's Tree Consultancy Ltd.

This report is an arboricultural
assessment to cover the requirements
under B.S.5837:2012 - Trees in relation to
design, demolition, and construction.

A brief account of the conclusive points of the report, for more in-depth detail please see the [conclusion](#).

In response to the case officers comments the proposed extension has now been reduced in the depth to now show the intrusion into the RPA of T2 by 7.6% which is in line with the guidance provided which will be acceptable from the previously approved planning application. The TPP and report have been amended to take this into consideration.

Summary

A summary of the contents of this report:

Proposed Development

- Construct a two-storey side extension and single storey rear extension to the property.
- Refer to architectural drawings for more details on proposed alterations.

Services and Excavation

- No information on the positioning of new services; presumed to be clear of tree root protection areas.
- Existing services extend from the property to the east of T2 and T3.
- New services will connect to existing services by the property.
- Excavations will be done by AirSpade under arboricultural supervision.

Tree Shading

Shading seems significant, however, T2 is in decline with reduced foliage density allowing light penetration.

Tree Impact Assessment

- 3 trees included in the report as potentially influenced by proposed alterations.
- Identified 2 category B trees and 1 category C tree; no category A or U trees assessed.
- Potential tree impact only includes T1 and T2.
- Requirement to remove 1 C1 category Goat Willow for development to proceed.
- Proposed extension will intrude 7.61% into the adjusted RPA of T2.
- Area already hostile to roots due to existing hard surfaces.
- Foundations in RPAs to be ground screws or continuously helical piles installed under arboricultural supervision.
- Minimum 50mm air gap provisions under proposed extension.
- No excavations except for vegetation scrape and removal of existing hard standing under arboricultural supervision.

Tree Protection Measures

- Standard tree protection fencing using Heras panels must be installed (details of the specification in the report).
- Fencing around construction exclusion zone must not be moved without prior approval.

- No materials stored within the fenced off area.

Ground Protection

- Ground protection to consist of 25mm plywood sheets pinned together on 150mm woodchip layer, detailed in appendix.



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The accompanying documents and appendices for this report are as follows:

This report must be read along with the accompanying tree survey plan and tree protection plan.

Tree survey plan [TSP]: WTC/102 Redhatch Dr/TSP/001

Tree protection plan [TPP]: WTC/102 Redhatch Dr/TPP/002

This report also must be read with the following appendices. If you are a customer of Wood's Tree Consultancy Ltd. or a tree officer and have received this report without these additional documents, please contact Wood's Tree Consultancy Ltd., and we will be happy to supply them to you.

APPENDIX 1: GUIDANCE FOR TREE PROTECTIVE BARRIERS

APPENDIX 2: SITE GUIDANCE FOR WORKING IN ROOT PROTECTION AREAS (RPAs)

APPENDIX 3: SPECIAL SURFACE CONSTRUCTIONS UNDER TREE'S RPAS

APPENDIX 4: KEY

APPENDIX 5: CASCADE CHART FOR TREE QUALITY ASSESSMENT

APPENDIX 6: REFERENCES

Introduction

Copyright and non-disclosure notice

The content and layout of reports are subject to copyright and owned by Wood's Tree Consultancy Ltd. Save to the extent that copyright has been legally assigned to us by another party or is used by Wood's Tree Consultancy Ltd. under license. Any report may not be copied or used without prior written agreement for any purpose other than those indicated.

Purpose of this arboricultural method statement

This document draws together all the information relevant to tree protection and management on the site. A copy must be given to the site manager before development commences. It must be available on site throughout the development process as a quick reference for the site manager.

Relevant references

This arboricultural method statement assumes that the minimum general standards for development issues are those set out in British Standards Institution. B.S.5837:2012: Trees in relation to design, demolition, and construction.

Recommendations and National Joint Utilities Group (1995) Publication Number 10:

Guidelines for the planning, installation, and maintenance of utility services in proximity to trees.

It is based on a ground-level tree assessment and examination of external features only, described as the 'Visual Tree Assessment' method expounded by Mattheck and Breloer (The Body Language of Trees, DoE booklet Research for Amenity Trees No. 4, 1994).

Site overview and description:

Site address:	102 Redhatch Drive, Earley, Berkshire, RG6 5QR	Description of development environment:	A double storey property of brick construction
Local authority:	Wokingham Borough Council	Council planning reference:	N/A

Survey extent and site description:

Site description

A double storey, semi-detached property, of brick construction. The property features a large gravel driveway. To the east of the property is an above ground concrete slab and a concrete patio leading to the rear garden, which is grassed.

Survey extent

Our survey covered the indicated area in the below satellite mapping image:



Soil type:

An online soil analysis search was conducted, and the findings are that the soil is composed of slowly permeable, seasonally wet, slightly acid, but base-rich loamy, and clayey soils.

This information was sourced from: <http://www.landis.org.uk/soilscapes/>.

This should not be used as a definitive determination, and other sources should be used, i.e., geological survey maps or a full soil analysis, where reactive soils have a high probability.

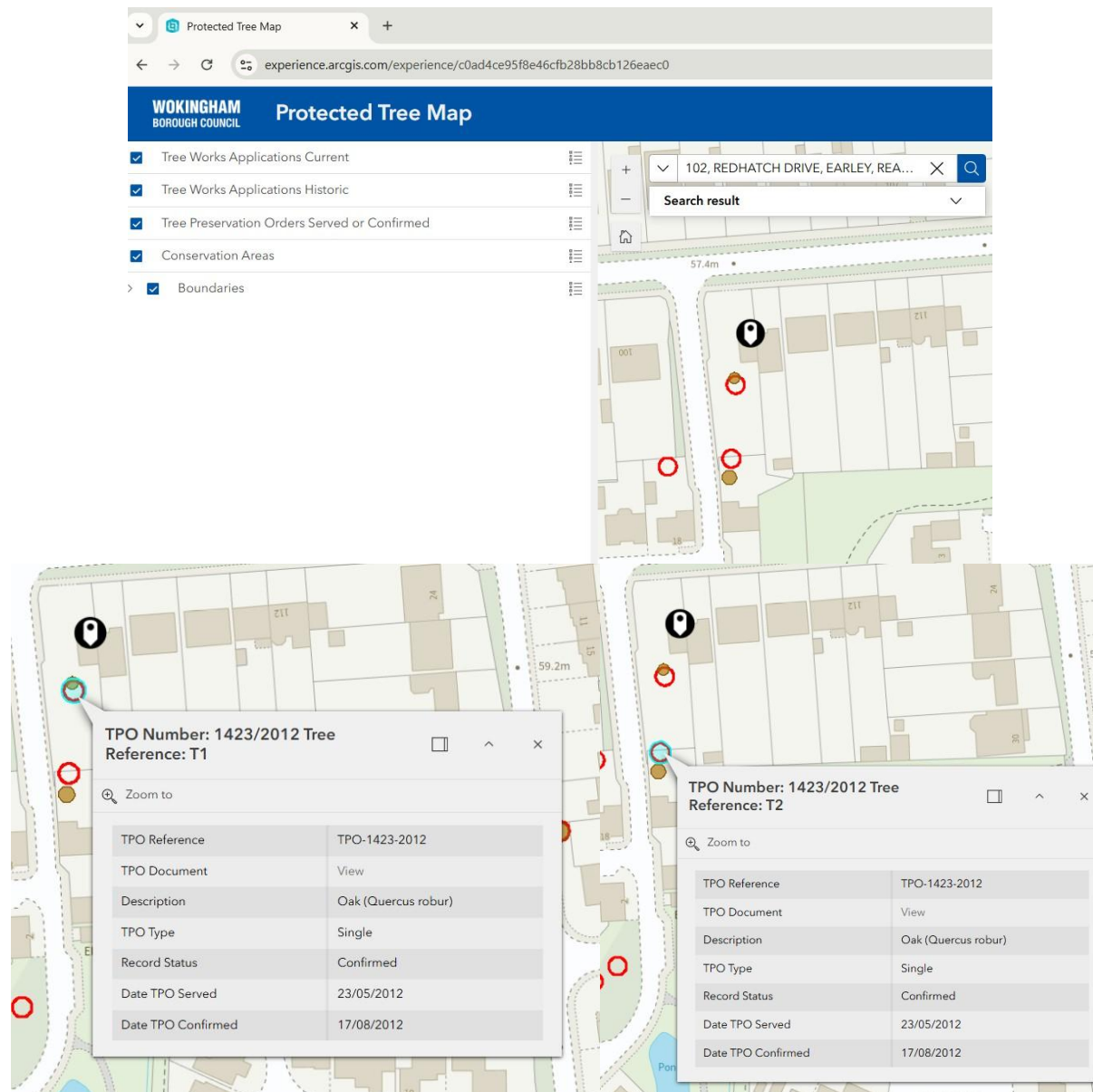
Tree protection status

On the 10th of February 2025, we assessed the local authority's website for information on tree preservation orders and conservation areas. We found that:

The site is covered by TPO: 1423/2012

No conservation areas are on the site.

The screenshot below, taken from the local authority's website, illustrates our findings and is the basis of the above assessment.



The site may be covered by other tree restrictive orders (such as AONB or green belt), and confirmation in writing should be sought from your local authority of all tree restrictions before proceeding with any works.

Tree survey:

Scope and limitations of the survey

- The survey and this report are concerned with the arboricultural aspects in relation to the proposed development and should not be interpreted as a health and safety report.
- This survey is restricted to trees within the site or those outside the site that may be affected by the proposals. No other trees were inspected.
- It is based on a ground-level tree assessment and examination of external features only unless otherwise stated, described as the 'Visual Tree Assessment' method expounded by Mattheck and Breloer (The Body Language of Trees, DoE booklet Research for Amenity Trees No. 4, 1994).
- This survey and report are valid for one year from the date stated on the cover page to enable planning submission. If this date has passed, then a new survey must be commissioned to ascertain the current conditions on site and their impact on the proposals. Once planning permission has been granted, this report is valid in accordance with the timeframes permitted under planning permission guidance.
- Only trees of significant stature were surveyed. In general, trees with a stem diameter at breast height (DBH) of less than 75mm have been excluded, unless they have merit that warrants comment.
- No plant tissue samples were taken, and no internal investigation of the trees was conducted.
- The risk of tree-related subsidence to structures has not been assessed.
- We have no knowledge of existing or proposed underground services unless specifically mentioned within this report.
- The positions of trees have been plotted by GPS using a SXBlue II + GPS, which delivers sub-60 cm (2dRMS, 95% confidence) positioning.
- The report is based on present ground levels. During the construction phase, if level alterations are required, then we must be informed of this to allow us to assess whether this will have any effect on the trees' rooting area.
- This site assessment is based on the trees on site or within potential influencing distance at the time of the survey. If there are changes to the site post-site survey, then this report will become invalid, and a new survey, subsequent drawings, and report will be required.

General exclusions

Unless specifically mentioned, the report will only be concerned with above-ground inspections. No below-ground inspections will be conducted without prior confirmation from the client that such work should be undertaken. This report should not be interpreted as a health and safety assessment; this is a different aspect of inspection requiring a more in-depth inspection regime. This can be undertaken if requested.

The validity, accuracy, and findings of this report will be directly related to the accuracy of the information made available prior to and during the inspection process. No checking of independent third-party data will be undertaken. Wood's Tree Consultancy Ltd. will not be responsible for the recommendations made in this report where essential data is not made available or is inaccurate.

This report will remain valid for one year from the date stated on the cover page to enable planning submission but will become invalid if any building works are carried out upon the property, soil levels altered in any way close to the property, or tree work is undertaken before permission from your local authority has been given. If alterations to the property or soil levels are conducted or tree work is undertaken, it is strongly recommended that a new tree inspection be conducted.

Survey method:

1. The survey was conducted from ground level with the aid of binoculars (when required).
2. In some cases, groups of trees are discussed collectively where individual identification has been deemed unnecessary.
3. The trees' stem diameter for single trees was measured at 1.5m; for trees with up to 5 stems, all were measured and the mean diameter determined; over 5 stems, the mean diameter was used.
4. The circle representing the RPA can be adjusted to provide a more accurate representation of the likely root development area when taking into consideration any physical obstructions (roads, etc.), topography and drainage, and soil type.
5. The height of each tree was estimated visually or, where possible, by using a clinometer.
6. The crown radii were laser measured (where possible) and are given for each main compass point: north, east, south, and west.
7. The lowest branch was also recorded, and its compass direction was noted.
8. The dimensions of trees within groups are given as an average figure unless otherwise stated.
9. Where access to trees was obstructed or obscured, measurements and dimensions have been estimated; this will be documented in the tree survey data section of this report.

B.S. Categories:

Each tree has been assessed in terms of its arboricultural, landscape, and conservation values in accordance with BS 5837:2012 and placed within one of the four following categories:

Category A:

Trees of high quality and value: in such a condition to make a substantial contribution to the site's aesthetics (a minimum of 40 years is suggested). Rare or unusual trees and exceptionally good examples of the species.

Category B:

Trees of moderate quality and value: those in such a condition as to make a significant contribution but may have slight defects or imperfections, poor quality past surgery techniques, which could lead to future complications. (A minimum of 20 years is suggested).

Category C:

Trees of low quality and value that might remain for a minimum of 10 years, individually or collectively, do not offer enhancement to the site's aesthetic value, or young trees with stems of less than 150mm diameter.

Category U:

Trees in such a condition as having serious defects, immanent loss due to potential collapse, fungal activity that could significantly reduce their life expectancy, or being of very low quality.

While the assessment of a tree's condition is a subjective process, Table 1 of BS 5837:2012 (see APPENDIX 5: CASCADE CHART FOR TREE QUALITY ASSESSMENT document) gives clear guidance on the appropriate criteria for categorising trees and the factors that would assist the Arboriculturist in determining the suitability of a tree for retention.

Assessed trees:

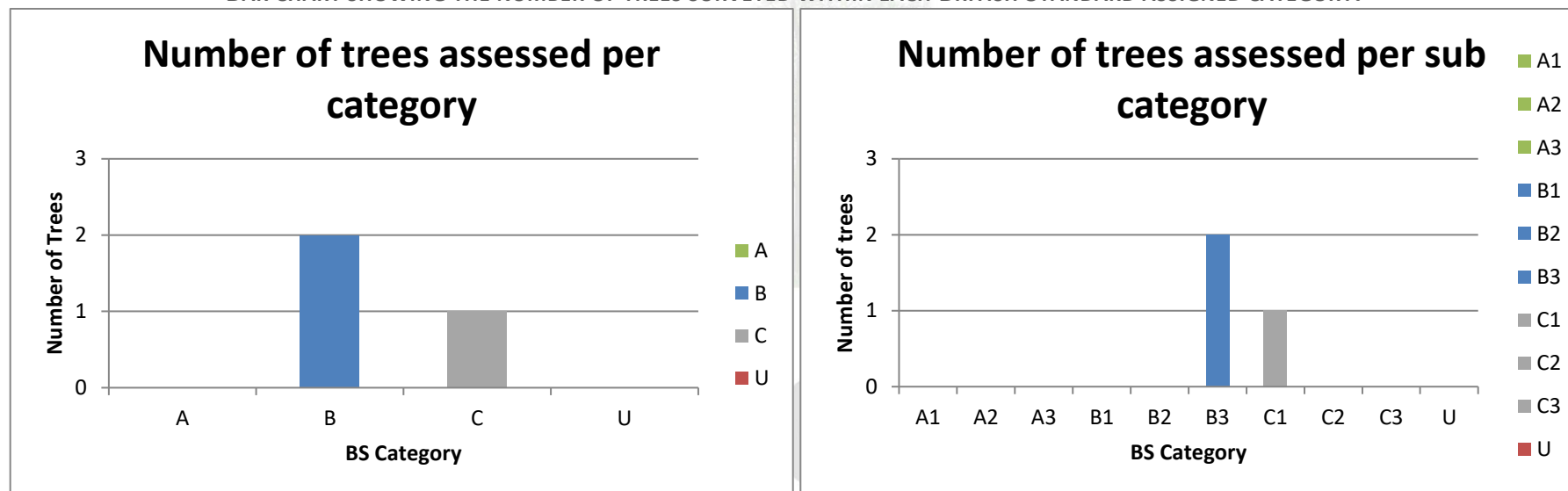
A total of 3 trees have been included in the report as being within the potential influencing distance of the proposed alterations.

2 category B trees were identified; none have high individual merit but may benefit the general landscape.

1 category C tree was identified. It has little benefit to the landscape due to it being unremarkable, in poor form, or poorly managed.

No A or U category tree(s) or group(s) were assessed on site.

BAR CHART SHOWING THE NUMBER OF TREES SURVEYED WITHIN EACH BRITISH STANDARD ASSIGNED CATEGORY.



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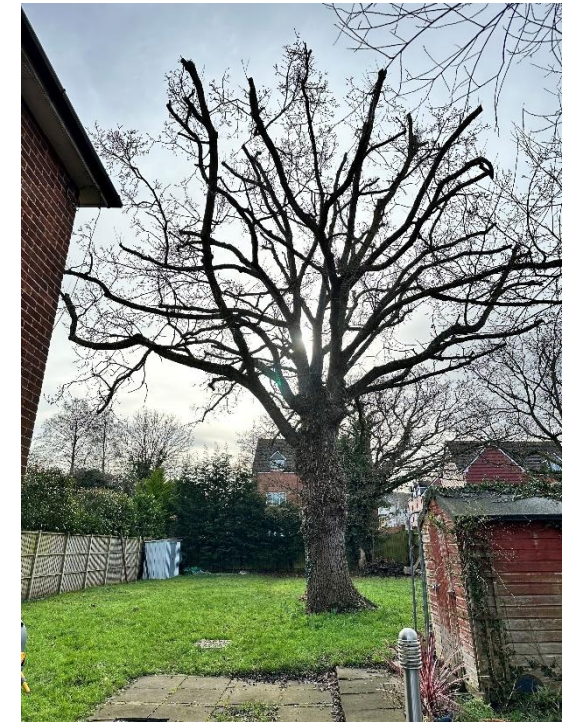
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Development proposal:

The proposal is to: construct a two-storey side extension and single storey rear extension to the property. Please see the architectural drawings for more details on the proposed alterations.

At this stage, no information has been provided as to the positioning of any new services required for the proposals; it is presumed these will be positioned clear of any tree root protection areas. There are currently services which extend from the property to the east of T2 and to T3. It is proposed that new services connect into the existing services by the property. Any new excavations for services will be conducted by AirSpade and under arboricultural supervision.

The shading factor has been taken into consideration as to the effect this will have on the development proposal and is clearly indicated on the Tree Protection Plan [TPP]: WTC/102 Redhatch Dr/TPP/002. Though the shading factor does appear to be quite significant. T2 is in decline with reduced foliage density. Its secondary and tertiary stems/branches bifurcate into a wide and etiolated crown, allowing light to penetrate through. The photograph (right) was taken at Midday on the 5th of February 2025 from the position of the proposed extension, and demonstrates, even in winter sun levels, how light can penetrate through the tree.



Issues and specifications:

Pre-commencement

Site meeting: A pre-commencement meeting should be held on site before any of the demolition or construction work starts. This must be attended by the site manager or agent, the arboricultural consultant, and preferably the council representative. If a council representative is not present, the arboricultural consultant must inform the council in writing of the details of the meeting. **All tree protection measures detailed in this document must be fully discussed so that all aspects of their implementation and sequencing are understood by all parties. To avoid any possible disagreement with the tree officer over the correct location of the tree protection barriers, we would strongly recommend that they be erected with onsite Arboricultural supervision. If this is not authorised, we cannot accept any liability if issues arise over the incorrect positioning of the barrier and possible site construction delays.** Any clarifications or modifications must be recorded and circulated to all parties in writing. It may be appropriate for the tree surgery contractor to attend this meeting.

Arboricultural implications assessment (AIA):

The primary criterion, in arboricultural terms, is the retention of as many appropriate trees as is practicable. Apart from the requirement to retain some of the existing character, the presence of trees is generally accepted as being beneficial to the environment. The following is an assessment of the effects of the proposed development on existing trees and the future landscape. Full details of recommended works are provided within the tree survey data schedule. There are some areas where there will be a slight detrimental impact on the retained trees; this has been taken into consideration, and the following mitigation solutions have been made:

Where temporary access is necessary within the RPA, ground protection has been shown on the Tree Protection Plan as a shaded area. This will be covered with an anti-compaction surface, as detailed in the **GROUND PROTECTION MEASURES SECTION OF THIS REPORT** and in APPENDIX 2: SITE GUIDANCE FOR WORKING IN ROOT PROTECTION AREAS (RPAs) document.

The storage of materials, clear of any trees RPAs is of high importance. A suggested location for this facility has been shown on the Tree Protection Plan [TPP]: WTC/102 Redhatch Dr/TPP/002.

A topographical survey has not been provided.

Our visual assessment is that the site has a level aspect with no level alterations required to achieve the proposed development.

The only possible tree impact is T1 and T2.

The proposed extension will intrude 7.61% into the adjusted RPA of T2. The area of the proposed extension is already hostile to roots due to the sealed surface of an existing concrete base, as well as a patio surface surrounding the west and southern elevations of the property. Thus, it is likely that there is reduced root activity in the area, particularly when the is open grassed area to the east and south of the tree. Therefore, it is proposed that the foundations for the proposed extension are comprised of ground screws or continuously helical piles, which are installed under arboricultural supervision and follow the guidance given in the **specialist engineered foundations within RPAs section** of this report. Furthermore, provisions for air permeability under the proposed extension must be allocated, allowing for a minimum of 50mm air gap. There must be no excavations, apart from a vegetation scrape [75mm maximum] and to remove the existing hard standing - both must be under arboricultural supervision.

There is no possible influence from the proposed alteration on T3.

Recommended tree work and management:

To permit the development to proceed, it will be necessary to remove T1, a multi-stemmed Goat Willow due to its proximity to the proposed extension. Its loss will not be significantly detrimental to the general environment. There is space within the property to plant a replacement tree. Some minor trees below 75mm in stem diameter were on the site but not assessed. These may need to be removed as part of the development programme, none of which should have any detrimental effect.

All other trees are to be retained; some will require surgery as detailed in the survey schedule in the tree survey data schedule and should be carried to the minimum levels as detailed in B.S. 3998:2010.

Tree protection measures:

Root Protection Area (RPA):

B.S. 5837:2012 provides guidance within section 4.6 for the calculation of the root protection areas [RPAs] of those trees to be retained. The RPA is the recommended area in square metres that should be left undisturbed around each tree to ensure that excessive damage to its roots or rooting environment is avoided.

In the case of open-grown trees with an even radial root distribution, it would be normal for the boundaries of the RPA to be equidistant from the trunk of the tree. However, B.S. 5837:2012 acknowledges that the disposition of tree roots can be significantly affected by several factors and that the actual position of the RPA will be influenced by specific tree and site factors. These factors are to be assessed by the Arboriculturist, and appropriate adjustments to the sighting of the RPA are to be made.

B.S. 5837:2012 requires that the RPA of all retained trees be protected from the effects of development by the installation of protective barriers.

It should be noted, however, that the position of these barriers may also be influenced by the presence of any tree canopies that extend beyond the RPA and that could be damaged by construction works or where it is desirable to protect areas for future tree planting. Until this is completed, no machinery should be allowed into this area.

The protective barriers demarcate the 'Construction Exclusion Zone' [CEZ] and must be installed prior to the commencement of any construction works, including clearance or demolition. All weather notices must be erected on the barriers. These can be found within the attached appendices titled "Tree protection signs for fencing." Protective barriers must be in accordance with Figure 2 of B.S. 5837:2012. Under no circumstances should any work be conducted within this area without the prior approval of the Arboricultural Consultant or Local Authority Tree Officer.

All tree protection measures must be retained in the position indicated on the Tree Protection Plan [TPP]: WTC/102 Redhatch Dr/TPP/002, unless their position is superseded by agreement at the pre-start meeting with the Arboricultural consultant and local authority's Arboricultural officer.

The position of protective barriers and the boundary of the CEZ are shown as a solid blue line in [TPP]: WTC/102 Redhatch Dr/TPP/002.

Due to the proximity of some of the trees to the construction area and the desire to retain them, the protective barriers have not been shown as per the standard guidelines; to overcome this, various methods of alternative protection have been suggested.

All the fencing can be erected as a single operation prior to any work on the site.

When demolition is required to permit the development to be conducted, under no circumstances will this be conducted prior to erection or within any protective barriers by machinery unless fully supervised and with prior approval.

When the use of machinery is unavoidable, then this must be on an anti-compact surface adequate to support the weight, such as steel, rubber, or wooden sheeting pinned into the ground and fixed together, or Aluminium tracking.

Protective barriers and root protection areas (RPAs)

Illustrative guidance for four methods of protective barriers based on advice in BS 5837 2012 is included in APPENDIX 1: GUIDANCE FOR TREE PROTECTIVE BARRIERS document. The location of the barriers, type, and RPA is illustrated on the Tree Protection Plan [TPP]: WTC/102 Redhatch Dr/TPP/002 as set out on the plan key, as a blue line. The precise location of the barriers must be agreed upon with the council on site before any development activity starts.

Measurements for the protective fencing can be found by using a scale rule on the TPP at the appropriate drawing scale. Prior to erecting the fencing, the measurements must be confirmed with the arboricultural supervisor. They are further identified in text form as P.B. Protective Barriers.

For this project: Tree protection fencing will consist of standard tree protection fencing (S.T.P.) constructed from Heras fencing panels, placed within rubber feet, which must be pinned using a soil pin. A support bar will be placed at a 45-degree angle within the construction exclusion zone at each end of the Heras panel and pinned to the ground using a soil pin. Each panel will then be clamped to each other using Heras anti-tamper couplers. If the fencing is to be installed on hard surfacing, impenetrable ground, or in close proximity to underground services, the stabilisation bars will be mounted on a block tray and suitably weighted so that movement is not possible. These must not be moved under any circumstances without prior approval from the Arboricultural consultant and the Tree officer. No materials must be stored within the area sectioned off by the barriers. Tree protection fencing measures have been shown as a thin blue line on the Tree Protection Plan [TPP]: WTC/102 Redhatch Dr/TPP/002.

Variations to the standard fencing for this project include a pedestrian gate, which is strictly for the use of the client to maintain the rear garden and for leisure activities.

Furthermore, tree protection fencing will use existing boundary fences where required.

Ground protection measures:

The ground protection measures have been illustrated on the Tree Protection Plan [TPP]: WTC/102 Redhatch Dr/TPP/002 as set out on the plan key, as an orange shaded area.

For this project: Ground protection will consist of 25mm plywood sheets (or TrakMats of suitable weight loading), pinned together, on a 150mm layer of woodchip (or sharp sand) on a Terram membrane. The installation of this is also detailed in APPENDIX 2: SITE GUIDANCE FOR WORKING IN ROOT PROTECTION AREAS (RPAs).

Fires:

The burning of materials is prohibited, and no fires shall take place on site, with no exceptions.

Guidance for working within RPAs:

Removal of existing surfacing and replacement of new surfacing:

Trees that have existing surfacing and structures to be removed and replaced within their RPAs and may be adversely affected by this activity. Any work within a tree's root protection area must be done with care, as set out in APPENDIX 2: SITE GUIDANCE FOR WORKING IN ROOT PROTECTION AREAS (RPAs). Any adverse impact must be minimised by following the general guidance set out in APPENDIX 2: SITE GUIDANCE FOR WORKING IN ROOT PROTECTION AREAS (RPAs). Any work must be conducted without the use of machinery and by hand tools unless under Arboricultural supervision and on anti-compaction surfaces.

Installation of new surfacing:

Trees having new surfaces to be installed on exposed soil within their RPAs may be adversely affected by this activity. Any adverse impact must be minimised by following the general guidance set out in APPENDIX 3: SPECIAL SURFACE CONSTRUCTIONS UNDER TREE'S RPAS document. Illustrative specifications for special surfacing are included in APPENDIX 3: SPECIAL SURFACE CONSTRUCTIONS UNDER TREE'S RPAS document. This may be under arboricultural supervision.

It is proposed that any future footpaths that fall within the RPA(s) will be constructed in accordance with the British standard – B.S.5837:2012. Where it is necessary to remove the existing hard surface or lower the ground level, exposing roots within the RPA, this will be excavated by hand, and the roots will be surrounded by sharp sand, with the greatest care being taken to cause the minimum amount of damage to the roots.

Where such work is required, the following steps should be undertaken:

- 1) The removal of the surface turf/vegetation by hand tools, no further excavation must be conducted.
- 2) Edge retention: Softwood boards pinned using Tanalised softwood pegs at 1500mm centres to prevent movement.
- 3) Geo-textile matting "Terram" laid on top of ground surface.
- 4) "Geocell" Cellular Confinement System (75mm deep filled with a none fines aggregate).
- 5) Geo-textile matting "Terram" laid on top of cellular confinement system.
- 6) Top surface laid, of a permeable nature.

Installation of new structure:

The building of any new structures (such as retaining walls) required close to the RPAs may adversely impact the trees. Any adverse impact must be minimised by following the general guidance set out in APPENDIX 2: SITE GUIDANCE FOR WORKING IN ROOT PROTECTION AREAS (RPAs) document.

Site storage, cement mixing and washing points:

All site storage areas, cement mixing and washing points for equipment and vehicles must be outside RPAs unless otherwise agreed with the council. Where there is a risk of polluted water run-off into RPAs, heavy-duty plastic sheeting and sandbags must be used to contain spillages and prevent contamination. Any facilities for the storage of oils, fuels or chemicals shall be sited on impervious bases and surrounded by impervious bund walls. The volume of the bund compound shall be at least equivalent to the capacity of the tank plus 10%. If there are multiple tanks, the compound shall be at least equivalent to the capacity of the largest tank, or the combined capacity of interconnected tanks, plus 10%. All filling points, vents, gauges, and sight glasses shall be located within the bund. The drainage system of the bund shall be sealed with no discharge to any watercourse, land, or underground strata. Associated pipework shall be located above ground and protected from accidental damage. All filling points and tank overflow pipe outlets shall be detailed to discharge downwards into the bund. A suitable location for this facility has been shown on the plans Tree Protection Plan [TPP]: WTC/102 Redhatch Dr/TPP/002

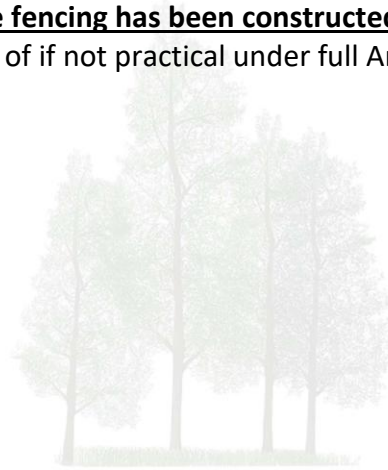
Services:

We have no knowledge of any existing or proposed services for the site, unless shown on the Tree Protection Plan [TPP]: WTC/102 Redhatch Dr/TPP/002. If services need to be installed within RPAs, great care must be taken to minimise any disturbance. Trenchless installation should be the preferred option but if that is not feasible, any excavation must be conducted by hand according to the guidelines in APPENDIX 2: SITE GUIDANCE FOR WORKING IN ROOT

PROTECTION AREAS (RPAs) document. If services do need to be installed within RPAs, written approval must be obtained from the council before any works are conducted.

Tree protection during demolition:

No site work of any nature will be conducted until the protective fencing has been constructed and approved by the Tree Officer. Where this must be conducted within the RPA this should be conducted by hand tools or if not practical under full Arboricultural supervision and machinery on anti-compaction surfaces.



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Specialist engineered foundations within RPAs:

The use of conventional strip excavation footings within RPA's must be avoided as this can result in excessive root loss and alternatives sought.

There are two options for pile foundation designs which are applicable for this project.

To enable the installation of the proposed foundations, pile locations will first be probed using a metal pole of between 15-30mm in diameter. It will be inserted into the ground by 600mm. This will locate significant root structures and allow the pile locations to be moved if root structures are found.

Furthermore, once the piles have been installed it is important that an air gap between the ground and floor is created giving a minimum depth of 50mm air gap, with air vents built in to maintain air flow. Surface water must also be directed under the extension and distributed evenly by 30mm diameter perforated pipes.

The two options of pile types are outlined below:

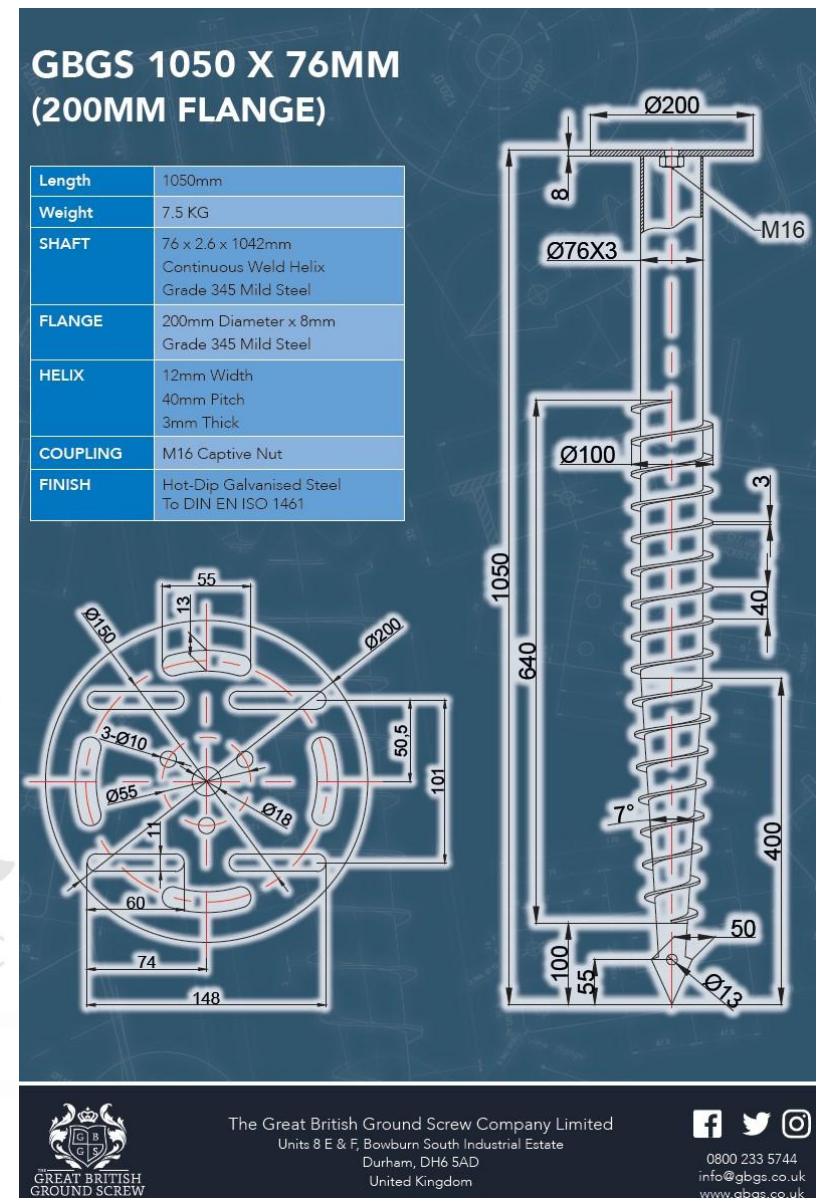
Option 1a: Ground screws

A more recent type of foundation which can be used to minimise the probability of ground compaction and pressure are ground screws. These come in various diameters and lengths depending on the application and are driven by a hand-held electric rotary drill, which attached to the head of the screw. The spacings between each pile will be the distance between each post which will be connected to them, and **no excavations required to achieve this format of foundation the rooting system remains intact.**

An example of a 1050mm x 76mm ground screw is shown in Figure 1, alternatively more information can be found at: [HTTPS://GBGS.CO.UK/OUR-PRODUCTS/](https://gbgs.co.uk/our-products/)

Option 1b: Continuously helical piles

An alternative type of pile is the 'Helipile' System manufactured by Target fixings, this has several advantages over a conventional pile in the installation requires only hand-held equipment thus significantly reducing the probability of ground compaction. The company will advise on the specifications specific to each application and conduct the installation. More details are available via their website: [HTTPS://TARGETFIXINGS.CO.UK/PRODUCTS/HELI-PILE/](https://targetfixings.co.uk/products/heli-pile/).



There are significant benefits from the continuous pile system in that the piles are either 60mm or 100mm in diameter and are produced in 1m sections. These are driven by a hand-held pneumatic hammer with air supplied by a compressor located outside the RPA. No heavy plant machinery will be required to install the piles.

The spacings between each pile is normally 2.5m with a foundation beam connected to them and no excavations required to achieve this format of foundation the rooting system remains intact.

The construction of this MUST be conducted in accordance with APPENDIX 2: SITE GUIDANCE FOR WORKING IN ROOT PROTECTION AREAS (RPAs) and will be supervised by an Arboricultural Consultant to advise on if roots are found.

Foundations outside of Root Protection Areas may use conventional strip excavation foundations.

As this foundation design is outside the guidance of this report it is essential that this is conducted by a competent structural engineer who is versed in this field and consultation will be made with the Arboricultural consultant if any issues are raised. Once this has been finalised this can then be submitted with this report or later to seek planning approval.

Access road:

No alterations are proposed to the present entrance drive, of which we are aware. If this changes then the appointed arboricultural supervisor must be informed so the proposals can be evaluated and submitted to the Tree Officer for consideration and hopeful approval.

Schedule of tree works:

A schedule of recommended tree works is in the tree survey data schedule. All trees are shown on the plan with a reference letter T for trees, proceeded by a number. All work should be conducted to the recognised standard B.S.3998:2010 as a minimum.

Scheduling of works that may affect protected trees:

In general terms, no construction, excavation, or other site operations will commence until tree protection measures are in place and have been agreed in writing as acceptable by the Local Authorities Tree Officer.

If this application is approved, any recommended remedial works in the schedule affecting the development proposal will be authorised. Any additional work required, an application to the local authority will be essential. This will need to be confirmed by careful understanding of the conditions imposed if approval is granted. Confirmation should be sought from the relevant Local Authority if there are any restrictive orders affecting the trees on the site, and if so, the appropriate consent gained. Prior to commencement of any works detailed in the schedule of work in the tree survey data schedule, discussions should be held with an appropriately qualified arboricultural contractor to ensure both parties are fully conversant with the nature of the work to be undertaken.

Developer's responsibilities, initial site visit and subsequent procedures for reporting:

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

Tree protection awareness

The developer must display tree protection signs on all protective barriers for the whole construction period. The signs to be used are contained within the appendix's documentation called "tree protection signs for fencing."

The site manager shall be responsible for checking that the tree protection fencing and ground protection has not been moved, is not loose, dilapidated or disintegrated, as part of their daily site opening checks. All site workers shall be informed of the tree protection fencing and ground protection procedures, construction, and locations. They must be made aware that they must not move, adjust, or remove the tree protection/ground protection without consulting Wood's Tree Consultancy Ltd. Reasonable explanation as to why the tree protection must be moved must be given, and the tree protection's revised position must be documented on a drawing produced by Wood's Tree Consultancy Ltd. and submitted to the local authority for their approval. All tree protection must be maintained daily ensuring that all bolts, connectors, poles, fencing panels, wooden boards, sand, woodchip, Terram membranes and TrakMats (where applicable) remain in the correct positions and are maintained. No materials shall be stored within, or on, any tree protection fencing or ground protection. Nore shall any washing/mixing or fires be located within 1.5m of any tree protection measures.

The below table shall be signed by all persons that enter the site to confirm they understand the tree protection awareness statement and that they shall conform to the expected standards required of all site personnel and their responsibility to ensure the protection of all trees and shrubs on the site. It is the site manager's responsibility to ensure that all persons entering the site sign the below table and understand the responsibilities entrusted upon them.

Name	Company	Date	Signature

Supervision visits:

To ensure that the tree protection is installed correctly, and ensure that it is maintained, a schedule of arboricultural visits will take place throughout the construction period. This will include the following:

- A pre-start meeting. – This shall be attended by an arboricultural consultant, the constructor, and the local authority tree officer. The aim of the meeting is to ensure that the tree protection measures are set up in accordance with the Tree Protection Plan, or if required, explain why adjustments have been made and if they are acceptable. If they are not acceptable, then this meeting will aim to rectify the tree protection measures to a standard that is approved by the arboricultural consultant and the local authority tree officer.
- Once the tree protection is installed to the correct standards, tree protection photographs will then be sent to Wood's Tree Consultancy Ltd. and forwarded to the LPA Arboricultural officer for approval, with the intention of starting the build 5 days after submitting the photographs to the Arboricultural officer, unless the Arboricultural officer responds with a negative comment.
- A site visit by an arboriculturist at no more than one-month intervals (responsibility of the client or contractor to organise).
- A report to be prepared after every site visit by the arboricultural consultant and submitted to the local authority.

The client must inform Wood's Tree Consultancy Ltd. one month before the intended start date, so that the pre-start meeting can be arranged with the attending parties. The pre-start meeting will take place two weeks prior to the intended start date to allow sufficient time for any adjustments to the tree protection.

The supervising arboricultural consultant may also be required to supervise the following on site actions within RPAs:

- Any demolition works.
- Any foundation excavations – including conventional strip excavations, AirSpade excavations, pile installations and hand dug excavations.
- Any service installations
- Access drive construction
- Landscaping – including tree planting.

Reporting:

The Arboriculturist must advise the site manager on any relevant tree issues at the time of the visit, followed by a formal letter of confirmation circulated to all parties, including the Local Authority. These site visit reports will form the mechanism for confirming that the tree related planning conditions have been complied with for the duration of the development activity.

Removal of protective fencing:

When **ALL** the construction processes are completed which includes any drainage and landscaping works, the fencing can be removed, and this should be conducted without any machinery entering the previously protected areas and with consideration for the tree's protection. This should ideally be conducted under Arboricultural supervision.

Completion meeting:

After the works have been completed but before the main contractor has left, a meeting should be arranged between the site supervising officer, the Local Authority Tree Officer, and the appointed Arboricultural Consultant. The purpose being to inspect the site and check that all procedures have been conformed to and agree to any correctional remedial works if required.

Wildlife considerations:

Prior to commencement of any tree works a full wildlife survey must be conducted to ascertain the possible presence of any wildlife on the ground or within the trees and appropriate action must be taken. Greater detail is covered under the landscape protection, recreation, and public access: Countryside and Rights of Way Act 2000 (CROW) [HTTP://JNCC.DEFRA.GOV.UK/PAGE-1378](http://jncc.defra.gov.uk/page-1378)

Replacement planting:

There is sufficient area to provide additional planting to offset any trees removed to allow for the development to proceed.

A planting scheme can be provided showing new landscape proposals. The emphasis would be to provide suitable trees of similar species to those removed and of appropriate size to ensure continued vegetative cover is maintained. The boundary screening by the replacement of trees and shrubs is an essential part of the scheme; consequently, this should assist in offsetting any exposure caused.

There are various other areas within the site which could be considered as viable opportunities to further enhance the development area these are around the buildings, footpaths, and access roads.

All Trees and Shrubs should conform to the British Standard for nursery stock as set out in 3936 Part 1-5. Planting of standard sized tree should be in accordance with the British Standard BS 8545:2014 Trees from nursery to independence in the landscape.

Conclusion:

1. The proposal is to: construct a two-storey side extension and single storey rear extension to the property.
2. Please see the architectural drawings for more details on the proposed alterations.
3. At this stage, no information has been provided as to the positioning of any new services required for the proposals; it is presumed these will be positioned clear of any tree root protection areas. There are currently services which extend from the property to the east of T2 and to T3. It is proposed that new services connect into the existing services by the property. Any new excavations for services will be conducted by AirSpade and under arboricultural supervision.
4. The shading factor has been taken into consideration as to the effect this will have on the development proposal and is clearly indicated on the Tree Protection Plan [TPP]: WTC/102 Redhatch Dr/TPP/002. Though the shading factor does appear to be quite significant. T2 is in decline with reduced foliage density. Its secondary and tertiary stems/branches bifurcate into a wide and etiolated crown, allowing light to penetrate through. The photograph (right) was taken at Midday on the 5th of February 2025 from the position of the proposed extension, and demonstrates, even in winter sun levels, how light can penetrate through the tree.
5. A total of 3 trees have been included in the report as being within the potential influencing distance of the proposed alterations.
6. 2 category B trees and 1 category C tree was identified. No A or U category tree(s) or group(s) were assessed on site.
7. The only possible tree impact is T1 and T2.
8. To allow this development to proceed, there will be a requirement to remove 1 C1 category Goat Willow.
9. The proposed extension will intrude 7.61% into the adjusted RPA of T2. The area of the proposed extension is already hostile to roots due to the sealed surface of an existing concrete base, as well as a patio surface surrounding the west and southern elevations of the property. Thus, it is likely that there is reduced root activity in the area, particularly when the is open grassed area to the east and south of the tree. Therefore, it is proposed that the foundations for the proposed extension are comprised of ground screws or continuously helical piles, which are installed under arboricultural supervision and follow the guidance given in the [specialist engineered foundations within RPAs section](#) of this report. Furthermore, provisions for air permeability under the proposed extension must be allocated, allowing for a minimum of 50mm air gap. There must be no excavations, apart from a vegetation scrape [75mm maximum] and to remove the existing hard standing - both must be under arboricultural supervision.
10. There is no possible influence from the proposed alteration on T3.
11. Tree protection fencing will consist of standard tree protection fencing (S.T.P.) constructed from Heras fencing panels, placed within rubber feet, which must be pinned using a soil pin. A support bar will be placed at a 45-degree angle within the construction exclusion zone at each end of the Heras panel and pinned to the ground using a soil pin. Each panel will then be clamped to each other using Heras anti-tamper couplers. If the fencing is to be installed on hard surfacing, impenetrable ground, or in close proximity to underground services, the stabilisation bars will be mounted on a block tray and suitably weighted so that movement is not possible. These must not be moved under any circumstances without prior approval from the Arboricultural consultant and the Tree officer. No materials must be stored within the area sectioned off by the barriers. Tree protection fencing measures have been shown as a thin blue line on the Tree Protection Plan [TPP]: WTC/102 Redhatch Dr/TPP/002.

12. Ground protection will consist of 25mm plywood sheets (or TrakMats of suitable weight loading), pinned together, on a 150mm layer of woodchip (or sharp sand) on a Terram membrane. The installation of this is also detailed in APPENDIX 2: SITE GUIDANCE FOR WORKING IN ROOT PROTECTION AREAS (RPAs).



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Tree survey data

Tree ID	In Conservation Area/TPO	Species & Maturity	Likely Bat Habitat	Measurements estimated	Height (m)	Height and direction of first significant branch (m)	Number of Stems	Stem 1 (mm) or average diameter for trees with more than 5 stems	Stem 2 (mm)	Stem 3 (mm)	Stem 4 (mm)	Stem 5 (mm)	Crown Spread (m)				Crown height (average)	Crown, Stem, Basal Area	B.S. Category	Life Expectancy	Physical Condition	Build Stage	Recommended action	Date	Comment
													N	E	S	W									
T1	Yes	Species: Goat Willow Latin: Salix caprea Maturity: Early Mature	No	No	5	2n	5	140	110	115	180	150	5	4	3	2.5	2	Crown-Fair, Stem-Fair, Basal Area-Poor	C1	10 to 20 yrs	Fair	Pre-construction	Recommended action: Fell and remove stump(s)	05.02.25	Tree is located to the west of the property in a concrete patio area and multi-stemmed at ground level. Located 7m from the south-west corner of the property and 8.5m from the north-west. Concrete area from base of tree and is 3.8m wide and then between that and the house is a paved patio area of 2.7m wide.
T2	Yes	Species: Common Oak Latin: Quercus robur Maturity: Mature	Unknown	No	11	2s	1	865					5.5	5	6	6	3	Crown-Poor, Stem-Fair, Basal Area-Fair	B3	10 to 20 yrs	Fair	Pre-construction	Recommended action: No action	05.02.25	Tree is located in open grass area and in the rear garden of the property. The crown has been poorly reduced to a poor standard. There is a surface drain 1.3m to the east of the trees base running towards the end of the garden. Tree is located 7.78m from the south-west corner of the property and 14.7m from the north-west corner.
T3	Yes	Species: Common Oak Latin: Quercus robur Maturity: Mature	Unknown	Yes	11	2n	1	850					9	9	8	7	3	Crown-Fair, Stem-Poor, Basal Area-Fair	B3	10 to 20 yrs	Declining	Pre-construction	Recommended action: No action	05.02.25	Tree is located in the rear garden on the rear boundary with a stem and central crown heavily covered in ivy. Stem has extensive decay from ground level to 3m above and recommend a separate report conducted on its safety.

Root protection calculations

Tree number	No. of stems	Stem 1 (or mean diameter for >5 stems)	Stem 2	Stem 3	Stem 4	Stem 5	RPA for 1 stem (m ²)	Radius (m)	RPA between 2 and 5 stems (m ²)	Radius (m)
T1	5	140	110	115	180	150			45.16	3.79
T2	1	865					338	10.38		
T3	1	850					327	10.20		



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Site photographs

				
Concrete slab above ground with sealed surface patio.				
				
				Drainage run located in the RPA of T2.