MARK WELBY
CONSULTING ARBORISTS

Arboricultural Report

Including a tree survey, impact assessment and method statement for a care home at

Evendons Lane, Wokingham, RG41 4DX

Reference: MW.2503.ELW.AIA
Client: Propco Wokingham Ltd
Date: 20 August 2025
Revision: -

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Executive Summary

Trees are a consideration in this planning application for a new care home. Therefore, this report has been drafted to provide the information required to enable the local planning authority to meet the duty placed upon them by section 197 of the Town and Country Planning Act (as amended, 2021).

Included are a BS5837:2012 compliant tree survey, an arboricultural impact assessment, and a tree protection strategy that includes a method statement and tree protection plan.

Six trees, two tree groups and two sections of hedgerow are to be removed. These are listed on the appended plan and include several trees of poor quality that would be removed regardless of this proposal, as good husbandry.

The new structure has been located outside the root protection areas of retained trees.

A length of pedestrian footway passes through RPAs. To minimise impact, this will be constructed using a 'no-dig' surface above existing levels.

The original site access will be removed sensitively and returned to soft ground.

Tree protection commitments include erecting barriers, a pre-start audit/meeting and supervision of two elements.

Provided the protection strategy is implemented as outlined, this application has a low arboricultural impact and is thus acceptable.

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1. Instructions and Terms of Reference

1.1. In June 2025, Propco Wokingham Ltd instructed me to visit the site to update the existing tree survey data and subsequently, in August, produce this report to discharge Part a) of Planning Condition 11 of outline permission 231351 dated 12/11/24 for a care home at Evendons Lane, Wokingham, RG41 4DX.

1.2. Following the recommendations of the British Standard[1], this report includes the necessary information to enable the local planning authority to meet the duty placed upon them by section 197 of the Town and Country Planning Act (as amended, 2021).

1.3. It demonstrates that the proposal's impact, both direct and indirect, has been assessed, and mitigation, compensation, and tree protection have been proposed where appropriate.

1.4. Correctly implementing the tree protection specified in this report is critical for ensuring the retained trees are successfully protected throughout construction.

1.5. The assessment considers the proposal's impact on the constraints of trees retained within the site and those on adjacent land. Such impact can be caused directly through construction damage and indirectly from post-development resentment and pressure to detrimentally prune or remove the trees. The latter is often due to a poor juxtaposition between the proposal and the trees.

1.6. A tree's root protection area (RPA) represents a minimum area in m^2 that shall be left undisturbed around it. This is initially represented by a circle but is fundamentally an area of rooting volume. It is often adjusted to account for constraints to root growth within the site (primarily highways and buildings). The British Standard provides recommendations regarding the protection of existing trees during the construction process. This is achieved by ensuring a tree protection strategy is implemented before any demolition or construction on site.

Documents Supplied

- Proposed: B01-11 - 10_J - Proposed Site Plan.dwg
- Site survey: 7552_Rev0_Topo.dwg
- Outline application tree survey: Keen Consultants, dated May 2023 (ref: 2143-KC-XX-YTREE-TreeSurvey-and-ImpactAssessment-Rev0) Submitted with outline application ref 231351.

[1]BS5837:2012 Trees in relation to design, demolition and construction

2. Statutory & Other Relevant Constraints

Local Planning Authority	Wokingham Borough Council
Tree Preservation Orders https://experience.arcgis.com/experience	None
Conservation Areas https://experience.arcgis.com/experience	None
Forestry Act (1967)	Applies to tree removals
Ancient Semi-Natural Woodland (ASNW) https://magic.defra.gov.uk/MagicMap.aspx	None
Ancient Tree Inventory https://ati.woodlandtrust.org.uk/tree-search/?v=	None
Obvious veteran trees	None
Sites of special scientific interest (SSSI) https://magic.defra.gov.uk/MagicMap.aspx	No
Legal covenants and outstanding planning conditions	Not known
Bedrock: British Geological Survey: https://geologyviewer.bgs.ac.uk/?_ga=	Loamy soils with naturally high groundwater
Soil: Landis SoilScape https://www.landis.org.uk/soilscapes/	Bagshot Formation - Sand
Note: the above data were checked at the time of writing.	

Ecology

2.1. The Natural Environment and Rural Communities Act 2006 places a duty on public authorities to have regard to conserving biodiversity when carrying out their functions. This includes protecting trees that provide habitats for wildlife. The Wildlife and Countryside Act 1981 also provides protection for certain species of plants and animals, making it an offence to intentionally damage or destroy their habitats.

3. Survey Scope & Methodology

3.1. Tree survey data can be found on the appended plan.

3.2. Survey by Keen Consultants, dated May 2023 (ref: 2143-KC-XX-YTREE-TreeSurvey-and-ImpactAssessment-Rev0) Submitted with outline application ref 231351.

3.3. Checked and verified in March 2025 by Mark Welby DipArb(RFS), TechCert(ArborA), FArborA, Arboricultural Association Registered Consultant

3.4. # denotes estimated dimension. Typically due to the tree being inaccessible.

3.5. Where dimensions are not listed, please refer to the plan graphics for an indicative representation (typically for groups).

3.6. Checked and verified in March 2025

3.7. The tree survey has been carried out following the recommendations of The British Standard and the trees are assessed objectively and without reference to any site layout proposals. Categories are based on each tree's health and condition, together with an assessment of its life expectancy if its surroundings were to be unchanged.

3.8. The reference numbers of surveyed trees and groups of trees are shown on the tree reference plan, which is appended to this report and based on the supplied survey drawing. Stem locations within groups may be estimated, and indicative of canopy only.

3.9. The tree survey was carried out from ground level only, with the aid of binoculars as necessary, following the Visual Tree Assessment[2] (VTA) method.

3.10. Where trees are located on neighbouring land, an estimated appraisal of their quality and dimensions has been made.

3.11. Where stems or branches are obscured by ivy or other materials a full assessment of those parts will not be possible.

3.12. Tree heights were measured with a clinometer or estimated in relation to those measured.

3.13. Trunk diameters are measured at 1.5m above ground level, where this is not possible, then Figure C.1 of the British Standard is followed.

3.14. Tree canopies were markedly asymmetrical, and were measured (or estimated by pacing) in four directions using a laser measure. Symmetrical canopies are measured in one direction only, with dimensions in the remaining directions assumed to be similar. For the canopies of groups of trees, the maximum radius for each compass point is measured (more complicated groups will have further notes taken and an accurate representation will be shown on the plan).

3.15. All estimated dimensions are noted in the data.

[2] Mattheck, C. & Breloer, H., 1998. The Body Language of Trees: A Handbook for Failure Analysis. London:H.M.S.O.

4. Arboricultural Impact Assessment

Proposal

4.1. It is proposed to replace the existing buildings with a new care home, the layout of which can be seen on the appended plan.

Tree Removals

4.2. Six trees, two tree groups and two sections of hedgerow are to be removed. These are listed on the appended plan and include eight trees and one group of poor-quality ash that would be removed regardless of this proposal, as good husbandry.

4.3. Any loss that may be felt as a result of their removal will be mitigated through new planting within the site.

Tree Surgery

4.4. Prescribed work includes the following:

- The reduction of the small group of beech hedging plants (#13) that are somewhat unmanaged starting to develop into trees.
- Any dead stems within the pine group #17 will be removed.
- Hedgerow #22 will be cut back to achieve the necessary sight lines.
- Willow #32 will be cut back to a 2m stem and allowed to regrow as a 'high-coppice'.

4.5. All proposed work is listed on the appended plan.

Construction Impact

4.6. RPAs have been adjusted to account for constraints to root growth posed by the highways and existing hard surfacing within the site.

4.7. Oak #28: The appended plan shows an encroachment into the circular RPA from the new surfacing. When reviewing this, it is important to note that the circles are somewhat notional and that the overall root protection area is recommended for protection in the British Standard.

4.8. The encroachment of 16m^2 equates to about 5% of the overall 327m^2 RPA.

4.9. Given the comparatively small encroachment, the use of a 'no-dig' surface is not proposed. In compliance with section 5.3.1a) of the British Standard, the protection barriers have been extended, contiguous to the RPA, to protect the same overal root protection area.

4.10. Pine group #17: A new footpath is proposed to link the site with Blagrove Lane. As this is within RPAs, a sensitive approach to construction is proposed to minimise the impact. This will comprise a cellular confinement system (CCS) / 'no-dig' surface, laid above existing levels.

4.6. **Oak #14 and Beech group #13**: The existing site entrance will be removed and returned to soft ground. As detailed in the method statement section of this document, this will be done in a sensitive manner.

Supervision & Monitoring

4.7. Some sites require more arboricultural involvement during the construction process than others. This is typically commensurate with the pressure on retained trees and the complexity of the tree protection strategy.

4.8. For this project, a pre-start meeting/tree protection audit before demolition starts is proposed. Supervision will also be required for two separate tasks.

4.9. It is my opinion that regular monitoring visits would not be necessary for this project.

Service & Utility Provisions

4.10. The proposed layout allows for reasonably open access around the new building. There is adequate space to service the site whilst avoiding all RPAs.

Compliance with planning policies

4.11. The National Planning Policy Framework (NPPF) (revised 2024) sets out government's planning policies for England and how these are expected to be applied.

4.12. It is acknowledged at a national level that trees have significant value within our urban environments and that it should be expected that loss of, or impact to, trees of high quality and value will be resisted.

4.13. Wokingham Borough Council's Core Strategy 2010 includes policies CP1 & CP7 that are relevant to trees.

CP1 – Sustainable development states that:

Planning permission will be granted for development proposals that:

1) Maintain or enhance the high quality of the environment;

CP7 - Biodiversity states that:

Sites designated as of importance for nature conservation at an international or national level will be conserved and enhanced and inappropriate development will be resisted. The degree of protection given will be appropriate to the site's status in terms of its international or national importance.

Development:

A) Which may harm county designated sites (Local Wildlife Sites in Berkshire), whether directly or indirectly, or

B) Which may harm habitats or, species of principle importance in England for nature conservation, veteran trees or features of the landscape that are of major importance for wild flora and fauna (including wildlife and river corridors), whether directly or indirectly, or

C) That compromises the implementation of the national, regional, county and local biodiversity action plans will be only permitted if it has been clearly demonstrated that the need for the proposal outweighs the need to safeguard the nature conservation importance, that no alternative site that would result in less or no harm is available which will meet the need, and:

i) Mitigation measures can be put in place to prevent damaging impacts; or

ii) Appropriate compensation measures to offset the scale and kind of losses are provided.

4.14. By avoiding removing any high-quality trees (category A) and minimising impact upon other trees, I conclude compliance with the NPPF and Policies CP1 & CP7.

Summary

4.15. Provided the tree protection strategy is implemented as outlined in the following method statement, this application has a low arboricultural impact and is thus acceptable.

5. Arboricultural Method Statement

5.1. The tree protection on this site is subject to implementation as detailed in the following sections.

5.2. The recommendations of the British Standard have been applied where viable. Where deviations from the preferred approach are required, the impact on any retained trees is minimised through a combination of supervision from an arboriculturist and adherence to the associated method statement.

5.3. The following strategy must be followed to avoid impacting the trees and adhere to any planning conditions.

5.4. The information within this section must be passed to the site foreman and cascaded to all relevant personnel involved in the project.

5.5. Any questions about the content or its implementation shall be directed to **Mark Welby Consulting Arborists at 01730 239492** before action is taken.

5.6. A tree protection plan showing the types of tree protection and their locations is appended. It includes the tree survey data, existing site features and the approved construction. The plan must be read in conjunction with this method statement.

Phasing

5.7. It is essential that the following phasing is followed if trees are to be effectively protected throughout construction.

1	Tree removals/surgery
2	Installation of protection barriers
3	Pre-start tree protection audit/meeting
4	Demolition & site clearance phase
5	Removal of original site access in RPAs: **under arboricultural supervision**
6	Construction Phase
7	Installation of 'no-dig' style path in RPAs: **under arboricultural supervision**
8	Removal of tree protection barriers upon completion of work

Table 1: Timing of operations in relation to trees

5.9. Shall any of the protection measures prove incompatible with elements of the build program, contact the project arboriculturist to discuss options.

Pre-start Audit/Meeting

5.10. The most important step in the tree protection process: a meeting with the project arboriculturist and the site manager shall be undertaken to review the measures before any main construction work starts on site. Usually included as a specific item in any planning conditions.

5.11. It is an opportunity to discuss any conflicts with the approved AMS and to seek changes if necessary.

5.12. An auditable record is to be kept on file and forwarded to the LPA if required.

Construction Exclusion Zone (CEZ)

5.13. The CEZ is a root-sensitive area where construction activities are to be excluded. The default method of doing so is through the installation of tree protection barriers. If construction access is required in the CEZ then ground protection can be used to facilitate this.

5.14. Everyone engaged in the construction process is responsible for respecting the tree protection measures and observing the necessary precautions within and adjacent to them.

5.15. Inside the exclusion zone, the following shall apply:

- No mechanical excavation whatsoever;
- No excavation by any other means without arboricultural site supervision;
- No hand digging without a written method statement having first been approved by the project arboriculturist;
- No lowering of levels for any purpose (except removal of grass sward using hand tools);
- No storage of plant or materials;
- No storage or handling of any chemical including cement washings;
- No vehicular access (unless ground protection is installed);
- No fire lighting.

5.16. In addition to the above, further precautions are necessary adjacent to trees:

- No substances injurious to tree health, including fuels, oil, bitumen, cement (including cement washings), builder's sand, concrete mixing and other chemicals shall be stored or used within or directly adjacent to the protection area of retained trees;
- No fire shall be lit such that flames come within 5m of tree foliage.

5.17. Variations from the above may be specified in the following sections of this method statement. This is only acceptable where detailed and will typically be subject to supervision by the arboriculturist.

Protection Barriers

5.18. Barriers must be fit to exclude construction activity and appropriate to the degree and proximity of work around the retained tree(s). Barriers shall be maintained to ensure that they remain rigid and complete.

5.19. See Appendix *i* for barrier specifications.

5.20. The default specification comprises a vertical and horizontal scaffold framework, well-braced to resist impacts. The vertical tubes shall be spaced at a maximum interval of 3 m and driven securely into the ground. Onto this framework, welded mesh panels shall be securely fixed. Care shall be exercised when locating the vertical poles to avoid underground services and, in the case of the bracing poles, also to avoid contact with structural roots. If the presence of underground services precludes the use of driven poles, an alternative specification shall be prepared in conjunction with the project arboriculturist that provides an equal level of protection. Such alternatives could include the attachment of the panels to a free-standing scaffold support framework.

5.21. On smaller projects or those where the level of construction is less intensive, alternative specifications may be acceptable (see Appendix i), subject to agreement with the project arboriculturist and written approval LPA (local planning authority).

Ground Protection

5.22. If required to facilitate access within the CEZ (or as shown on the appended tree protection plan), ground protection is to be installed. If not already included on the tree protection plan, it must be approved in writing by the local planning authority before implementation. The ground protection must be capable of supporting the expected loads and avoiding rutting, compaction and damage to the soil: as advised in section 6.2.3 of the British Standard.

GP1: Tree protection barriers and scaffold ground protection

GP2: Tree protection barriers & trackmat ground protection

5.23. Stages of ground protection installation:

1. If required, dismantle barriers and re-erect them to protect any newly exposed CEZ not to be covered by ground protection;
2. Any shrubs, saplings or trees to be removed, are to be cut or ground out to just below ground level rather than grubbed or winched out, which can damage the roots of retained trees;
3. Lay woven geotextile over the existing ground surface by hand;
4. Cover the area with a compressible layer (200mm of woodchip, for example), using hand tools only;
5. Cover compressible layer with side butting scaffold boards, plywood boards of proprietary trackway/trackmats;
6. Confirm surface is acceptable for use with the project arboriculturist;
7. Area ready for construction access;
8. Any scaffolding required within the area will be erected with the uprights placed on spreader boards;
9. The boarding will be left in place until the construction works are finished.

5.24. A single thickness of boarding laid on the soil surface will provide sufficient protection for pedestrian loads. However, for wheeled or tracked construction traffic movements within the RPA, ground protection will involve the use of temporary geocell/cellular confinement systems, reinforced concrete slabs or track-board systems details of which are to be specified by the project engineer and approved for use by the project arboriculturist and local authority before construction commences.

5.25. Track-boards can be sourced from Trakmats, 0800 622 6838, www.trakmats.co.uk, or GroundGuards, 0113 209 3685, www.ground-guards.co.uk.

5.26. There is to be no excavation within the ground protection area whatsoever. This includes the installation of services and associated utilities, without prior approval.

Site Induction

5.27. All site staff are to be briefed on the tree protection strategy for the site as part of the general site induction procedure. This can be carried out by the site manager once he has been briefed by the project arboriculturist.

5.28. In general, this will include the following:

1. Explanation of the purpose of the tree protection barriers and any ground protection
2. Explanation of the demolition procedures near trees

3. Explanation of the sensitive/supervised excavation areas
4. What to do if access is needed within a protected area for any reason
5. What to do if damage occurs to any tree protection barriers and how to contact the project arboriculturist if necessary.

Tree Surgery

5.29. Tree surgery work is listed in the schedule on the appended plan, along with all trees to be removed.

5.30. All work will be carried out under BS3998[3] industry best practice and in line with any works already agreed upon with the council.

5.31. The statutory protection[4] [5] will be adhered to. If further advice is required, particularly if bats are discovered during tree work, it will be obtained from Natural England or other competent persons and recommendations adhered to.

5.32. The stumps of any trees removed from within the Construction Exclusion Zone or the RPAs of retained trees will be either cut flush to ground level and left in situ or ground out using a stump grinder. They will not be winched out.

5.33. All operations shall be carefully carried out to avoid damage to the trees being treated or neighbouring trees. No trees to be retained shall be used for anchorage or winching purposes.

Installation of Underground Services

5.34. Mechanical trenching for the installation of underground apparatus and drainage severs any roots present and can change the local soil hydrology in a way that adversely affects the health of the tree. For this reason, particular care must be taken in the routeing and methods of installation of all underground apparatus. Wherever possible, apparatus must be routed outside RPAs. Where this is not possible, it is preferable to keep the apparatus together in common ducts. Inspection chambers shall be sited outside the RPA.

5.35. Where underground apparatus is to pass within the RPA, detailed plans showing the proposed routeing must be drawn up in conjunction with the project arboriculturist. In such cases, trenchless insertion methods shall be used: Microtunnelling, Surface-launched directional drilling, Pipe ramming or Impact moling (see BS5837:2012 Table 3), with entry and retrieval pits being sited outside the RPA. Provided that roots can be retained and protected, excavation using hand-held tools might be acceptable for shallow service runs. If this is the case, the following methodology must be followed:

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[3] *BS3998:2010- Recommendations for Tree Work.* London: British Standards Institute

[4] *Wildlife and Countryside Act.* (1981) London: HMSO.

[5] *Conservation of Habitats and Species Regulations (2017)* London: HMSO.

5.36. Stages for installing services:

1. Contact project arboriculturist to hold pre-start site meeting and 'toolbox' talk before starting work.
2. Remove just enough tree protection fencing to allow access to the area and facilitate trenching.
3. Remove any surface vegetation or existing hard surfaces using hand tools.
4. Using an air-pick excavate the trench, keeping to the minimum dimensions required.
5. Roots occurring in clumps of 25 mm diameter and over are encountered they will be retained and kept damp by covering with hessian (re-wetted as required). If required, these shall be severed only following consultation with an arboriculturist; as such roots might be essential to the tree's health and stability.
6. Feed in services.
7. Backfill the trench with 200-300mm depth of excavated soil, or a mixture of excavated and imported topsoil to BS3882: 2015, firming down with heels.
8. Repeat step 7 until the trench is filled.
9. Re-erect tree protection fencing as per the approved plan.

5.37. The method of excavation above, for trenching within RPAs, is using air excavation. This tool utilises compressed air to remove soil from around tree roots causing minimal damage and can be run off a typical site compressor. I can provide details of contractors supplying air excavation services if required.

5.38. Alternatively, trenchless technology, such as thrust boring can be used in some instances and is particularly effective as it can pass directly under the tree, at a depth which is likely to avoid almost all impact on the roots of the subject tree. As no access/thrust pits will be located within the RPAs of the subject trees, the need for arboricultural supervision is limited.

5.39. Reference can be made to NJUG Vol 4[6] for guidance, but any approach must be approved by the project arboriculturist and brought to the attention of the local authority tree officer.

Fencepost/Hoarding Installation in RPA

5.40. Stages for installing wooden posts:

No plant machinery is to be used in the area for whatever reason

1. Remove TPF to allow access to the area. If working inside the tree's RPA, ground protection boarding must be used to avoid compaction and contamination of the root zone.

6 National Joint Utilities Group. (2010). Volume 4: NJUG Guidelines For The Planning, Installation And Maintenance Of Utility Apparatus In Proximity To Trees (Issue 2) – Operatives Handbook. NJUG.

2. Dig postholes using hand tools, avoiding damage to the protective bark covering larger roots. Roots smaller than 25mm in diameter may be pruned back using either secateurs or a hand saw, leaving a clean cut.
3. Damage or severance of roots above 25mm diameter must be avoided. If roots of this size are discovered, the hole shall be relocated. If there are a large number of such roots it may be necessary to relocate the hole by half a fence panels length and adjust the fence panels accordingly.
4. Line holes with non-porous lining, for example, a durable polyethene bag.
5. Insert post and fill post-hole with concrete to just below ground level.
6. Trim polyethene to ground level and fill with clean topsoil.
7. Reinstall TPF as approved.

Hard Surface Removal (Existing Entrance)

5.41. Hard surfaces close to trees come in many different forms and makeups. Until removal (or trial pits) have ascertained the presence/absence of roots in the area, the final treatment of the area cannot be determined. Therefore, the initial phase of this work is somewhat exploratory.

5.42. No surface removal within RPAs will occur without arboricultural supervision.

5.43. Stages for hard surface removal within tree protection areas:

1. Contact the project arboriculturist to hold a pre-start site meeting and 'toolbox' talk before starting work and oversee the process.
2. Plant machinery to run only on existing hard surfaces with consent from an arboriculturist.
3. The plant may be used to carefully peel up existing tarmac and concrete.
4. Other surfaces are to be removed by hand (paving etc.)
5. Where any sub-base is unlikely to contain roots and only on approval from the project arboriculturist, it may also be carefully removed.
6. If the supervisor concludes that there are no significant roots in the area following the surface (and possible sub-base) removal then there is no longer a need to proceed cautiously. The supervising arboriculturist will note their conclusions within the record of the overall works. Proceed to step 9.
7. If the supervisor concludes that significant roots are still present then the underlying ground levels are to be retained. No further excavation is to occur.
8. Any exposed roots and surrounding newly exposed areas are to be covered with up to 200mm of topsoil, from elsewhere on site, or imported topsoil to BS3882 Soil may be placed in the area by plant but must be spread by hand.

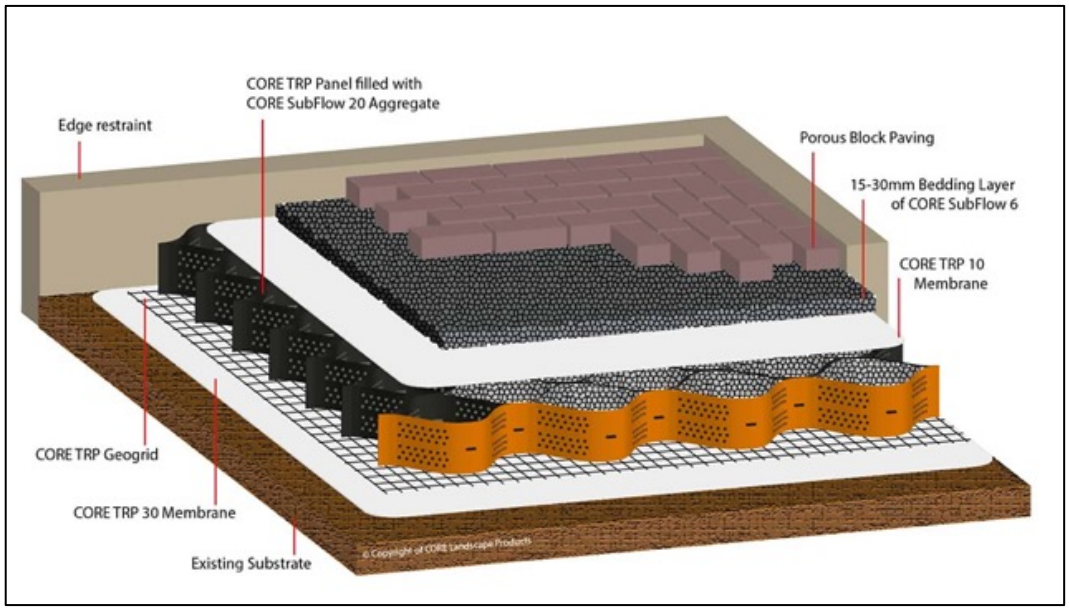
9. As deemed necessary by the supervising arborist, tree protection barriers are to be erected to protect tree stems and, if appropriate, the newly exposed soft ground. Reference the Tree Protection Plan for approved tree barrier alignments.
10. Work records are to be circulated by supervising arboriculturist and forwarded to the LPA as required.

Installation of 'No-Dig' Geocell Surface

5.44. To ensure that tree roots, within the ground under this proposed surface, continue to survive during and after construction, a geocell/cellular confinement system (CCS) is proposed. The following is a guide to installation, not an engineering specification. It is critical that an engineer design this surface to ensure long-term durability.

5.45. Stages for Installation of the cellular confinement surface:

1. Contact project arboriculturist to hold pre-start site meeting, a 'toolbox' talk before starting work and provide supervision throughout the process;
2. Remove existing grass sward to 50mm with hand tools or turf stripper only;



ND1: CORE Tree Root Protection © Porous block paving

3. Agreed removal of shrubs, saplings or trees, within the protected areas of retained trees are to be cut or ground out to just below ground level rather than grubbed or winched out, which can damage the roots of retained trees;
4. Retain all original ground levels after vegetation removal. No further excavation whatsoever within RPAs;
5. Remove any existing hard surfaces (paving, tarmac etc.) Hand tools shall be used if possible. If machinery is required for this operation, it must be used only on existing surfaces or

outside the protected areas and tree canopies (approval from the project arboriculturist must be sought before using machinery). The sub-base of existing surfaces or foundations shall be left in situ where possible to avoid unnecessary root disturbance and provide a base for the new surface;

6. Install a non-woven geotextile (such as Root-tex 30) directly over soil grade level (levelled where necessary, by non-compacted washed sand) and fix in place;
7. Lay the cellular system over the geotextile, which is secured open under tension during the infill process with steel staples or wooden pegs;
8. Install kerbs and edgings directly on top of the existing soil grade level. For light structures, a treated peg and board may be acceptable. For more substantial structures, railway sleepers, haunched concrete with road pins, drilled kerbstones, gabions or cast in situ kerbs will be appropriate;
9. Fill the cellular system ensuring any machinery works only on already filled areas. Typical infill consists of no fines angular granular material 20-40mm, which will remain uncompacted;
10. If required, cover with a non-woven geotextile (Root-tex 30 or similar).
11. Install porous wearing surface.

5.46. Any variation to the above specification must meet the following design criteria for low-invasive surfaces to provide the conditions for continued tree survival and growth:

- Maintain oxygen diffusion through the new surface to the rooting area (5-12% by volume)
- Maintain sufficient passage of water to the rooting area (12-40% by volume)
- Avoid compaction by maintaining a soil structure sufficient to sustain root growth (soil bulk density below 1.4g/cc).

5.47. Site analysis of the soil type and its structural characteristics will be required before determining the specific depth of products to be adopted, for example, footpaths normally require a depth of 75mm and, 100mm to 200mm depths are used for residential driveways, while greater depths may be required for the passage of heavier traffic such as for construction access and delivery vehicles.

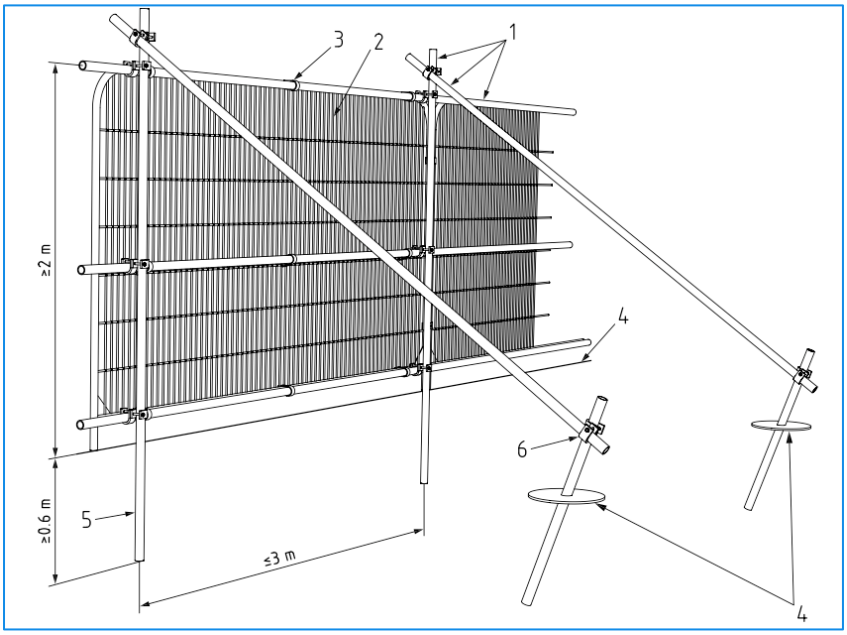
5.48. If ground levels are to be raised more than 150mm this shall be achieved by the use of a granular material, which does not inhibit vertical gaseous diffusion. For example, no-fines gravel, washed aggregate, structural soil (min. 20% sand content) or cobbles.

5.49. See https://www.corelp.co.uk/core-tree-root-protection/ and https://www.geosyn.co.uk/product/cellweb-tree-root-protection for more information.

6. Limitations of Use and Copyright.

Appendix

i. Tree Protection Barriers



1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanised tube and welded mesh infill panels
3 panels secured to up rights and cross members with wire-ties
4 ground level
5 uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

TPF1: Default specification for protective barrier (Fig 2 from BS5837:2012)

TPF 2: Alternative fencing option: scaffold uprights with backstay

TPF 3:Alternative fencing option: on boots with backstay

TPF 4: Plastic barrier for low intensity areas of construction

TPF 5: Chain-link for low intensity areas on large projects

ii. Tree Categories Explained

BS5837:2012 Table 1 -**Cascade chart for tree quality assessment**			
Category and definition	**Criteria (including subcategories where appropriate)**		
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, 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) *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.***		
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**
Trees to be considered for retention			
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)	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)
Category 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), such 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
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

iii. Protection Plan

See the following page

BS5837 Tree Survey: Trees & Groups to be Retained

Retained Trees / Groups

Ref	Common Name	Height	Stem Diameter	Crown Clearance	Observations	Tree Surgery	Est. Remaining Contribution	Date Surveyed	BS Cat	RPA Radius	RPA Area	No.
1	English oak	17m	800mm	2m	Broad spreading tree growing on southern side of Evendons Lane. Main stem and crown smothered in ivy.		>20 Years	4/3/2025	B2		290m²	1
2	Mixed tree belt	15m	400mm		Established belt of trees on southern side of Evendons Lane. Appears to have been a hedge but now outgrown.		>20 Years	4/3/2025	B2			1
3	Group of ash	11m	300mm	3m	All showing signs of Ash Dieback. Unsuited to long term retention.		<10 Years	4/3/2025	U	3.6m	41m²	1
4	Group of mixed broadlees	8m	250mm		Established but out grown collection of trees that possibly was once a hedge. Species include hawthorn, blackthorn, cherry, laurel and hazel.		>20 Years	4/3/2025	B2	3m	140m²	5
5	Crab apple	5m	250mm	2m	Small tree smothered in ivy.		>10 Years	4/3/2025	C1	3m	28m²	1
6	Hornbeam	16m	640mm; 670mm	2m	Twin stemmed from ground level. Prominent roadside tree.		>20 Years	4/3/2025	B1		387m²	1
7	Ash	15m	250mm; 250mm; 250mm; 250mm; 250mm; 250mm; 250mm; 250mm	4m	Advanced Ash Dieback. Unsuited to long term retention.		<10 Years	4/3/2025	U	8.4m	222m²	1
8	Ash	13m	300mm; 300mm; 300mm	3m	Showing signs of advanced Ash Dieback. Unsuited to long term retention.		<10 Years	4/3/2025	U	6.3m	124m²	1
9	Ash	11m	250mm	2m	Showing signs of advanced Ash Dieback. Unsuited to long term retention.		<10 Years	4/3/2025	U	3m	28m²	1
10	Ash	15m	400mm; 400mm; 400mm	4m	Showing signs of advanced Ash Dieback. Stems covered in ivy. Unsuited to long term retention.		<10 Years	4/3/2025	U	8.4m	222m²	1
11	Mixed broadleaf hedgerow	5m	150mm		Established but outgrown hedgerow alongside road. Species include hawthorn, holly, snowberry and privet.		>10 Years	4/3/2025	C2		81.34m²	1
12	Mixed broadleaf hedgerow	5m	150mm		Established but sparse hedgerow alongside roadside. Species include blackthorn, berberis, holly and elm sapling. Some elms are dead and need to be removed.		>10 Years	4/3/2025	C2		144.9m²	1
13	Group of beech	10m	250mm	2m	Group of small trees at entrance of industrial unit. Probably intended as a hedge and now outgrown.	Reduce canopy to contain. Retain a radial spread of no less than 2m and height of no less than 4m.	>10 Years	4/3/2025	C2	3m	112m²	4
14	English oak	13m	390mm	2m	Small oak tree grown immediately against entrance wall. Long term retention untenable.		>10 Years	4/3/2025	C1	4.8m	72m²	1
16	Group of dead elm		150mm		Dead.		<10 Years	4/3/2025	U	1.8m	10m²	1
17	Group of Scots pine	17m	450mm	3m	Collection of closely spaced trees in south east corner of site. Many stems are dead and at the point of collapse. The dead stems should be removed and retention of others considered.	Remove dead stems	>10 Years	4/3/2025	C2		531.58m²	1
19	English oak	16m	700mm	2m	Established broad spreading tree growing between parking and Blagrove Lane. Main stem partially smothered in ivy.		>20 Years	4/3/2025	B1		205.86m²	1
22	Mixed broadleaf hedgerow	7m	150mm		Established but outgrown hedgerow along Blagrove Lane. Mixed species including hawthorn, blackthorn, elm and elder. Some elm have died and need to be removed.	Cut back to achieve sight lines as requried	>20 Years	4/3/2025	B2		85.89m²	1
24	Field maple	8m			Multi stemmed example forming larger component of hedge.		>20 Years	4/3/2025	B2			1
25	Group of English oak	16m	700mm	2m	Closely spaced group of oaks alongside Blagrove Lane.		>20 Years	4/3/2025	B2		888m²	4
26	Mixed broadleaf hedge	6m	150mm		Established but sparse hedgerow dividing fields. Mixed species including hawthorn, blackthorn, field maple and hazel.		>10 Years	4/3/2025	C2		307.1m²	3
27	Group of field maple	8m	300mm		Larger component of hedgerow.		>20 Years	4/3/2025	B2	3.6m	41m²	1
28	English oak	15m	850mm	2m	Broad spreading example growing within hedge line. Pocket of decay on northern side of mainstem. Crown partial smothered in ivy. Some storm damage.		>20 Years	4/3/2025	B2	10.2m	327m²	1
29	Group of field maple	7m	250mm	2m	Larger component of hedgerow.		>20 Years	4/3/2025	B2	3m	56m²	2
32	Goat willow	10m	400mm; 400mm; 400mm		Some stems have failed. Remaining stem liable to failure.	Reduce in height to approximately 2m to allow regrowth as a 'high coppice'.	<10 Years	4/3/2025	U	8.4m	222m²	1
34	Holly	7m		2m	Of multi-stemmed form and forming part of hedgerow.		>10 Years	4/3/2025	C1			1
35	Field maple	13m	400mm	2m	Growing on distal side of ditch within broad belt of vegetation.		>10 Years	4/3/2025	C1	4.8m	72m²	1
36	Pair of ash	15m	600mm	3m	Pair of close growing stems both of which are densely smothered in ivy preventing thorough inspection and accurate measurement.		>20 Years	4/3/2025	B2	7.2m	163m²	1
37	Field maple	10m	400mm	4m	Growing amidst dense belt of vegetation on distal side of ditch.		>10 Years	4/3/2025	C1	4.8m	72m²	1
38	Group of field maple	8m	200mm	2m	Cluster of stems forming part of hedgerow.		>10 Years	4/3/2025	C2	2.4m	18m²	1
39	English oak	17m	900mm	2m	Visually significant broad spreading tree although main stem and much of limb structure densely smothered in ivy preventing thorough inspection and accurate measurement.		>20 Years	4/3/2025	B1	10.8m	366m²	1
												Total :44

Survey by Keen Consultants, dated May 2023 (ref: 2143-KC-XX-YTREE-TreeSurvey-and-ImpactAssessment-Rev0) Submitted with outline application ref 231351.

Checked and verified in March 2025 by Mark Welby DipArb(RFS), TechCert(ArborA), FArborA Arboricultural Association Registered Consultant www.mwelby.com

# denotes estimated dimension. Typically due to the tree being inaccessible.
Where dimensions are not listed please refer to the plan graphics for an indicatvie representation (typically for groups).

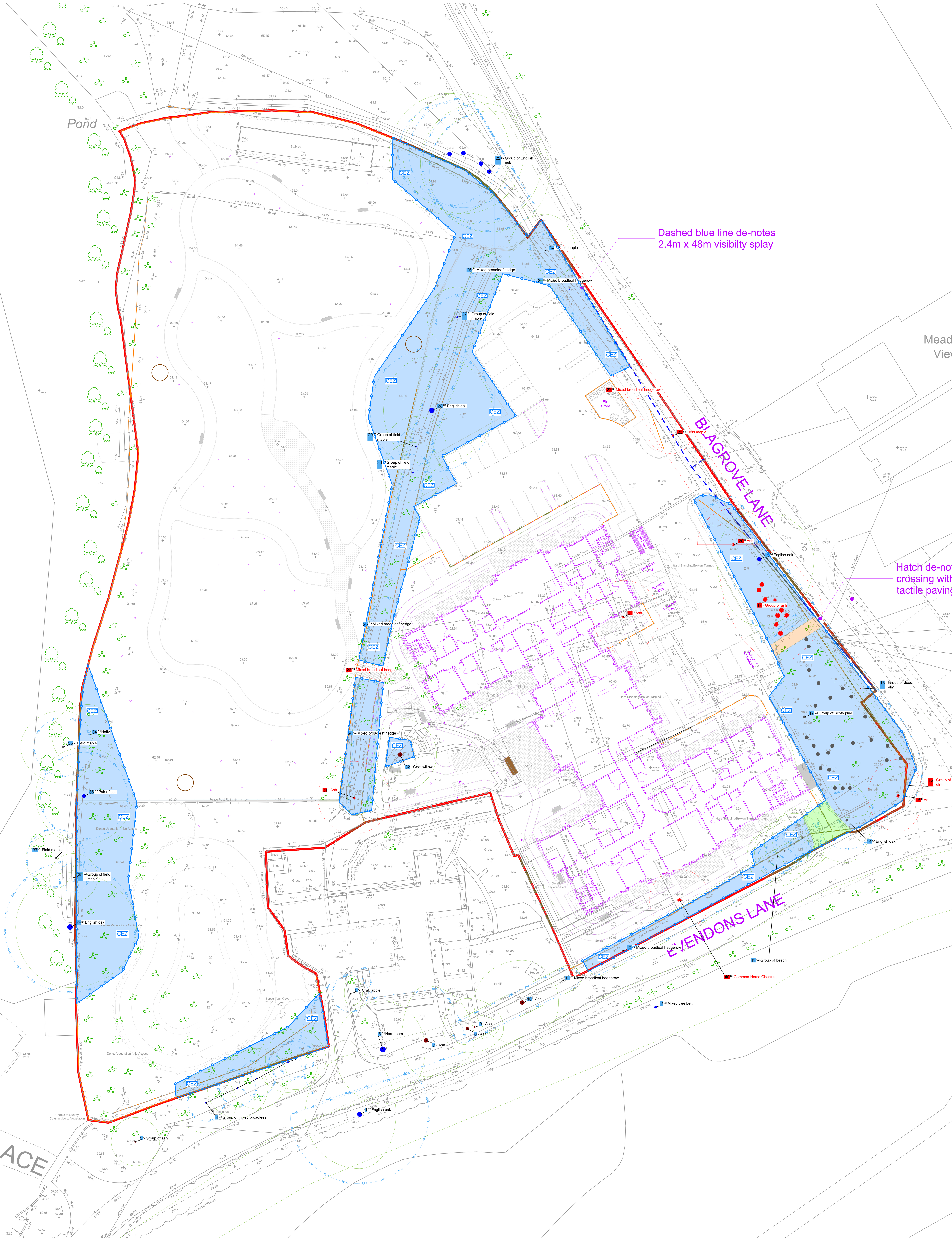
Trees & Groups for Removal

Removed Trees / Groups

Ref	Common Name	Height	Stem Diameter	Crown Clearance	Observations	Est. Remaining Contribution	Date Surveyed	BS Cat	No.
15	Ash	13m	250mm; 250mm; 250mm	3m	Showing signs of Ash Dieback. Main stem smothered in ivy. Unsuited to long term retention.	<10 Years	4/3/2025	U	1
16	Group of dead elm				Dead.	<10 Years	4/3/2025	U	1
18	Group of ash	14m	350mm	2m	Closely spaced cluster of trees. All showing signs of Ash Dieback. None suited to long term retention.	<10 Years	4/3/2025	U	1
20	Ash	14m	350mm	2m	Advanced Ash Dieback. Main stem covered in ivy.	<10 Years	4/3/2025	U	1
21	Ash	14m	350mm	5m	Growing amidst buildings. Showing signs of advanced Ash Dieback. Unsuited to long term retention.	<10 Years	4/3/2025	U	1
22	Mixed broadleaf hedgerow	7m	150mm		Established but outgrown hedgerow along Blagrove Lane. Mixed species including hawthorn, blackthorn, elm and elder. Some elm have died and need to be removed.	>20 Years	4/3/2025	B2	1
23	Field maple	9m	250mm	2m	Larger component of hedgerow.	>20 Years	4/3/2025	B2	1
26	Mixed broadleaf hedge	6m	150mm		Established but sparse hedgerow dividing fields. Mixed species including hawthorn, blackthorn, field maple and hazel.	>10 Years	4/3/2025	C2	1
31	Ash	13m	350mm	2m	Showing signs of Ash Dieback. Main stem partially smothered in ivy.	<10 Years	4/3/2025	U	1
40	Common Horse Chestnut	10m	450mm	2m	Fair condition	20+ Years	4/3/2025	B1	1
									Total :10

BS5837:2012 Cascade chart for tree quality assessment

Category & Definition	Criteria (including subcategories where appropriate)		
Trees unsuitable for retention			
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, 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) • 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		
Trees to be considered for retention			
	1. Mainly arboricultural qualities	2. Mainly landscape qualities	3. Mainly cultural values, including conservation
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)	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)
Category 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), such 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
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	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

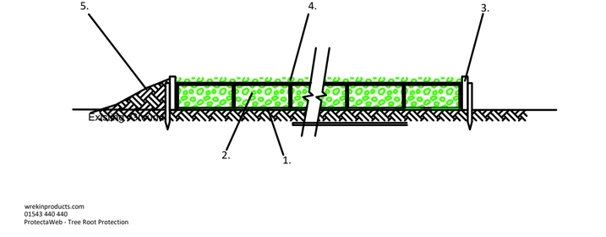


TREE PROTECTION AREA
KEEP OUT!
(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECT OF A TREE PRESERVATION ORDER. CONTRAVENTION OF A TREE PRESERVATION ORDER, MAY LEAD TO CRIMINAL PROSECUTION
THIS FENCING MUST NOT BE REMOVED WITHOUT PERMISSION FROM THE LOCAL PLANNING AUTHORITY

No–dig style Geocell / Cellular Confinement Surface Recommended Detail

See method statement for more detail. MUST be subject to engineering design

KEY
1. Root–tex 30 geotextile
2. 100–200mm deep ProtectaWeb tree root protection system infilled with 4/20 Clean angular Stone to BS EN 13242 / EN 12620
3. Treated timber edging (Or other edging detail acceptable)
4. 4/20mm Clean angular stone to BSEN13242/EN 12620 surcharge
5. Soil graded to edging (If required)



Construction Exclusion Zone

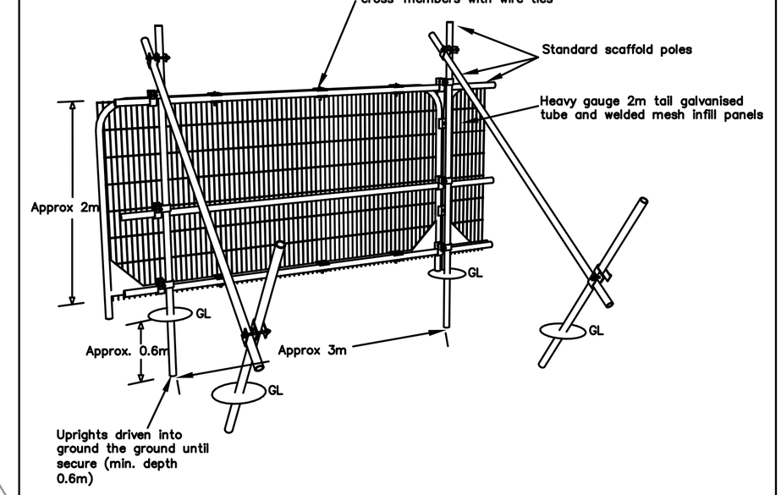
It is the responsibility of everyone engaged in the construction process to respect the tree protection measures and observe the necessary precautions within and adjacent to them.

Inside the exclusion zone, the following shall apply:
- No mechanical excavation whatsoever;
- No excavation by any other means without arboricultural site supervision;
- No hand digging without a written method statement having first been approved by the project arboriculturist;
- No lowering of levels for any purpose (except removal of grass sward using hand tools);
- No storage of plant or materials;
- No storage or handling of any chemical including cement washings;
- No vehicular access;
- No fire lighting.

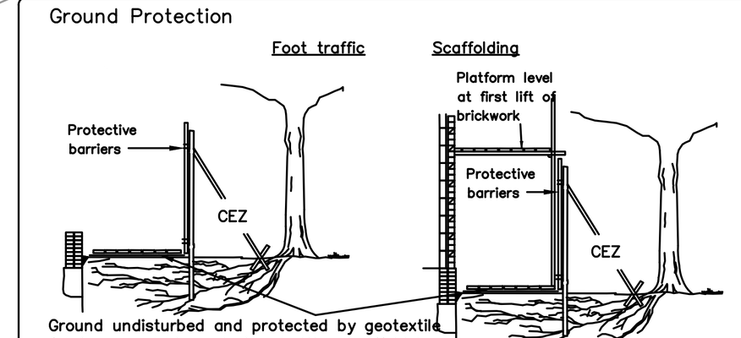
In addition to the above, further precautions are necessary adjacent to trees:
- No substances injurious to tree health, including fuels, oil, bitumen, cement (including cement washings), builder's sand, concrete mixing and other chemicals shall be stored or used within or directly adjacent to the protection area of retained trees;
- No fire shall be lit such that flames come within 5m of tree foliage.

All weather signs shall be erected at reasonable intervals on the barriers. See example inset

Default specification for protective barrier



Ground Protection



Ground undisturbed and protected by geotextile fabric , woodchip and side–butting scaffold boards

For pedestrian movements only, a single thickness of scaffold boards should be placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression–resistant layer (e.g. 100 mm depth of woodchip), laid onto a geotextile.

For pedestrian operated plant up to a gross weight of 2 t, proprietary, inter–linked ground protection boards should be placed on top of a compression–resistant layer (e.g. 150 mm depth of woodchip), laid onto a geotextile.

For wheeled or tracked construction traffic exceeding 2 t gross weight, an alternative system (e.g. pre–cast reinforced concrete slabs) should be employed to an engineering specification designed in conjunction with arboricultural advice to accommodate the likely loading to which it will be subjected.

Statutory Controls & Other Constraints	
Local Planning Authority	Wokingham Borough Council
Tree Preservation Orders https://experience.arcgis.com/experience	None
Conservation Areas https://experience.arcgis.com/experience	None
Forestry Act (1967)	Applies to tree removals
Ancient Semi-Natural Woodland (ASNW) https://magic.defra.gov.uk/MagicMap.aspx	None
Ancient Tree Inventory https://ati.woodlandtrust.org.uk/tree-search/?v=	None
Obvious veteran trees	None
Sites of special scientific interest (SSSI) https://magic.defra.gov.uk/MagicMap.aspx	No
Legal covenants and outstanding planning conditions	Not known
Bedrock: British Geological Survey: https://geologyviewer.bgs.ac.uk/?_ga=	Loamy soils with naturally high groundwater
Soil: Landis SoilScape https://www.landis.org.uk/soilscapes/	Bagshot Formation - Sand

Base plan/site survey reference: 7552_Rev0_Topo.dwg

NOTES
This Tree Survey has been undertaken within the recommendations of British Standards 5837:2012 and current arboricultural best practice.
- The reference numbers of surveyed trees and groups of trees are shown. Stem locations within groups may be estimated, and indicative of canopy only
- The tree survey was carried out from ground level only, with the aid of binoculars as necessary, following the Visual Tree Assessment (VTA) method.
- Where trees are located on neighbouring land an estimated appraisal has been made of their quality and dimensions.
- Where stems or branches are obscured by ivy or other materials a full assessment of those parts will not be possible.
- Height dimensions are estimated and are given in metres.
- Trunk/stem diameters are measured in mm at 1.5 metres above ground level, unless otherwise stated. Where this is not possible, then Figure C.1 of the British Standard is followed..
- Tree canopies are graphically represented on the plan. They, where markedly asymmetrical, were measured (or estimated by pacing) in four directions using a laser measure. Symmetrical canopies are measured in one direction only, with dimensions in the remaining directions assumed to be similar. For the canopies of groups of trees, the maximum radius for each compass point is measured (more complicated groups will have further notes taken and an accurate representation will be shown on the plan).

N

REV:	DATE:	UPDATES:	DRAWN:

1:250 — 2.5, 5.0, 7.5, 10.0, 12.5, 15.0m

Legend	
01 Oak TPO ref	Tree ref/category/species & TPO ref
	Root protection area
	Crown spread
CEZ	Construction Exclusion Zone (CEZ)
	CEZ extent. To be protected with temporary protective barriers or ground protection to allow construction access. See insets and method statement for details.
	Tree to be removed
	Sensitive demolition within RPAs. See method statement
	No-dig surface to be laid above existing ground. See inset and method statement

BS 5837:2012 Tree Quality Categories
- Category A - High quality
- Category B - Moderate quality
- Category C - Low quality
- Category U - Unsuitable for retention

Guidance on the implementation and use of this information, along with its limitations and more can be downloaded here: https://bit.ly/5837FAQ

This plan has been drafted in colour. A monochrome version must not be relied upon

Tree Protection

Evendons Lane, Wokingham, RG41 4DX

Date: 19/08/2025

Scale: 1:250 @A0

DWG Ref: MW.2503.ELW.TPP

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