Arboricultural Impact Assessment and Method Statement

for

LAND ADJACENT TO ASHGROVE NURSING HOME, CHESTER ROAD, GRESFORD, WREXHAM, LL12 8PP

Prepared By: Craig Watkins – Tree Consultant

Date: 30th June 2026

Ref: MVE_AIA/AMS _518.

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Executive Summary

This Arboricultural Impact Assessment (AIA) and Arboricultural Method Statement (AMS) have been prepared to support the proposed development at land adjacent to Ashgrove Nursing Home, Chester Road, Gresford. The assessment identifies a total of eight individual trees and two hedge groups, within the site. Four trees (T1, T2, T3 and T8) are identified for removal due to their declining physiological condition or significant structural defects, independent of development pressure. Two additional trees (T5 and T6) require removal to facilitate access arrangements and accommodate modified Root Protection Areas (RPAs), representing a proportionate response to site constraints. To compensate for these losses, six new high quality replacement trees Fastigiate Oak and Fastigiate Beech are recommended as part of the final landscape scheme.

All retained trees will be safeguarded using Tree Protection Fencing (TPF) installed in accordance with BS5837:2012, forming secure Construction Exclusion Zones (CEZs). No excavation, ground reduction, or foundation works will occur within RPAs, and any future service installations will comply with NJUG Volume 4 to avoid avoidable root damage. The AMS sets out a clear sequence of operations, including pre-commencement meetings, installation of protection measures, supervised works near RPAs, and periodic compliance inspections. A final arboricultural inspection will confirm that retained trees remain unharmed and that all protective measures have functioned as intended before fencing is removed.

The combined AIA and AMS demonstrate that the development can be delivered without adverse impact on retained trees, with robust protection measures, clear supervision requirements, and meaningful compensatory planting ensuring long-term arboricultural and landscape benefits.

1.0 Introduction

1.1 Instruction

1.1.1 I have been instructed by Mr Neil Randford NCR Architectural Design. The instruction was received by email on 22nd June 2026.

1.1.2 The instruction is to produce a tree survey and arboricultural impact assessment (AIA), Arboricultural Method Statement (AMS) and tree protection plan (TPP) that accords to the methodologies and guidance of BS5837:2012 "Trees in Relation to design, demolition and construction recommendations, to aid a discharge of Condition 6 of Planning Permissions under Application no. P/2025/0958.

1.2 Brief

1.2.2 The assessment has been undertaken in accordance with the principles of BS 5837:2012 – Trees in Relation to Design, Demolition and Construction, applying them as good practice.

1.2.3 The report aims to assess and comment on the impacts imposed by development proposals on trees and vice versa. Evaluating direct and indirect influences of on and off-site trees usually within 15 metres of the site.

1.2.4 Where impacts are identified these will be assessed and appropriate management or mitigation measures will be made to ensure the retention and protection of the more important trees. And aid in the production of an Arboricultural Method Statement to be secured through an appropriately worded planning condition from the Local planning authority.

1.2.5 The AIA will be supported by an Arboricultural Method Statement (AMS) setting out the proposals and the necessary tree protection and management measures.

1.2.6 A Tree Protection Plan (TPP) will be produced that will identify the location of tree protection fencing and management during development and form the Construction Exclusion Zone (CEZ).

1.3 Documents and Information provided

1.3.1 Existing and proposed layout.

1.4 Tree Survey

1.4.1 The tree survey was undertaken by Craig Watkins on 27th June 2026 a suitably qualified Arboriculturist hold ATP in Urban Forestry and Arboriculture. The site survey and subsequent report will be used to identify and categorise on site trees, evaluating those which are most suitable for retention based on tree categorisation table in Appendix 3.

1.4.3 Each tree was given a sequential (T) number and tagged where appropriate. Each tree was recorded with the common and botanical names. Where groups or woodlands form a cohesive assemblage, they are recorded as (G) Groups and (W) Woodlands, with largest trees recorded to reflect RPA's and crown spreads. Where trees appear exceptional to the existing group or woodland they were recorded as individuals.

1.4.4 All trees were measured using a standard DBH girthing tape and a Laser Range Finder to assess:

Stem diameters at 1.5m above ground level with a girthing tape to enable calculation of root protection areas.

Heights and crown spreads at 4 cardinal points are measured using Leica Disto A8, to enable crown representation on tree protection plans.

1.4.5 Each life stage for each tree was assessed as follows:

Young – Newly planted or self-set trees.

Semi-mature – Large nursery stock or self-set trees in their early life stages.

Early – mature – Trees that are in their third life cycle with significant increases in size.

Mature – Trees in their second third life cycle reaching full size potential and slowing growth rates.

Over-mature – Trees in their final third their life cycle showing signs of decline.

Veteran – Trees showing signs of retrenchment and deadwood habitat irrespective of their age.

1.4.6 General observations will be recorded for physiological and structural condition of the trees, with preliminary management recommendations.

1.4.7 Each individual tree, tree group and woodland will be categorised in accordance with categorisation table1 in Appendix 3.

1.4.8 Full details of the tree survey which informs the quality and value of the trees can be found on data sheets within Appendix 2.

1.4.9 Where a topographical plan is not available trees will be plotted by triangulating features on site to mark the positions. Where access is restricted tree dimensions may be estimated.

1.5 Scope of the Report

1.5.1 The report aims to provide guidance and recommendations for the retention of trees and the impacts of design, demolition and construction activities to create a sustainable development where trees and built structures can co-exist.

1.5.2 The information will be used to provide an assessment of the impacts the trees have on development and vice versa and provide appropriate justification for tree removals and mitigation replanting where required.

1.5.3 Under the UK planning system, local authorities have a statutory duty to consider the protection and planting of trees when granting planning permission for proposed development. The potential effect of development on trees, whether statutorily protected (e.g by a Tree Preservation Order or by their inclusion within Conservation Area) or not, is material consideration that is considered in dealing with planning applications.

1.5.4 The nature and level of detail of information required for the LPA to properly consider the impacts and effects of development proposals varies between stages and in relation to what is being proposed. Table B.1 below offers advice to both developers and LPA's on the level of information required at varying stages of planning and development processes. This is the minimum detail that LPA's are expected to seek.

Table B.1 **Delivery of tree-related information into the planning system**

Stage of process	Minimum detail	Additional information
Pre-application	Tree survey	Tree retention/removal plan (draft)
Planning application	Tree survey (in the absence of pre-application discussions)	Existing and proposed finished levels
	Tree retention/removal plan (finalized)	Tree protection plan
	Retained trees and RPAs shown on proposed layout	Arboricultural method statement – heads of terms
	Strategic hard and soft landscape design, including species and location of new tree planting	Details for all special engineering within the RPA and other relevant construction details
	Arboricultural impact assessment	
Reserved matters/ planning conditions	Alignment of utility apparatus (including drainage), where outside the RPA or where installed using a trenchless method	Arboricultural site monitoring schedule
		Tree and landscape management plan
	Dimensioned tree protection plan	Post-construction remedial works
	Arboricultural method statement – detailed	Landscape maintenance schedule
	Schedule of works to retained trees, e.g. access facilitation pruning	
	Detailed hard and soft landscape design	

1.6 Limitations and Copyright

1.6.1 The report is solely for the purpose of an assessment for development proposals and does not assess any risk trees may pose to people and/or property. However, details on the structural and physiological tree conditions will be noted, and should an unacceptable risk be identified then this will be bought to the attention of the client, but the report and its contents is not a tree risk management report and should not be treated as such.

1.6.2 The report does not make reference to protected species (e.g. Bats and their roosts are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) as well as the Conservation of Habitats and Species Regulations 2012 (as amended) and are also listed under Section 41 of the Natural Environment and Rural Communities Act 2006. All UK nesting birds are protected under the Wildlife and Countryside Act (WCA) 1981, as amended. Bird species that are listed on WCA Schedule 1 are given further protection, including increased penalties as well as protection against disturbance of their active nest(s).

1.6.3 No samples of any description were taken from site for lab analysis or for any other purpose.

1.6.4 The survey did not include soil sampling for an assessment of shrinkable soil types. Analysis of soils should be carried out by a specialist to ensure building foundations are appropriate and in line with current National House Building Council Guidelines NHBC.

1.6.5 Trees are influenced by variety of biotic and abiotic activities (e.g. construction activities, pathogens, climatic events, etc.) which can affect their biomechanical and physiological condition of trees, the author cannot take responsibility for changes in condition once the site visit has been completed, the therefore report is valid for 1 year from date this report.

1.6.6 Trees can be protected by a Tree Preservation Order under the Town and Country Planning Act 1990 (as amended) or located within a Conservation Area Planning listed buildings and Conservation Area Act 1990 (as amended). For the purpose of this report, the Local Planning Authority was contacted to ascertain any restrictions. Where restrictions are identified it is important that no works are completed to protected trees without first gaining written consent from the LPA. Penalties for non-compliance of a TPO and/ or Conservation Area can be unlimited if tried in a County Court and up to £20,000 if tried in a Magistrates Court.

1.6.7 Any management recommendations that have been made are in accordance with "BS3998: 2010 Tree Works – Recommendations" and industry best practice or recommended in accordance with any statutory obligations on the landowners or occupiers.

1.6.8 The report and its contents are copyright and are solely for the use of the client. No copying is allowed for all or any part of the document without the permission of the author.

1.6.9 Should the report be altered or tampered with in any form, then this will invalidate the entire report.

2.0 Site Description

2.1.1 The site comprises a parcel of land situated immediately adjacent to Ashgrove Nursing Home, fronting Chester Road within the settlement of Gresford. The land forms part of an established suburban edge-of-village environment characterised by mature boundary vegetation, intermittent tree cover, and a mixture of residential and institutional land uses.

2.1.2 Topography across the plot is generally level with gentle localised undulations typical of the wider Wrexham landscape. Existing tree cover is primarily associated with boundary features, including mixed broadleaf and conifer species that contribute to local amenity and provide a degree of screening between the nursing home and neighbouring properties.

2.1.3 The surrounding context includes residential dwellings, small commercial premises, and the nursing home itself, with trees forming a notable component of the local character. The site sits within a well-vegetated setting where tree retention, protection, and proportionate mitigation will be central considerations in relation to any proposed development.

2.1.4 The proposal seeks change of use of the existing coach house to office accommodation, together with a series of minor external alterations and associated site improvements. The works include the installation of a new pergola, the replacement of the front window, and the introduction of new rear double doors to improve access and functionality.

2.1.5 The scheme also incorporates the formation of a new car park, providing dedicated off street parking to support the proposed office use. All works are confined within the existing curtilage and are intended to enhance the usability, appearance, and operational capacity of the building while maintaining its overall form and character.

3.0 Survey Results and Vegetation Evaluation

3.1.1 The tree stock associated with the land adjacent to Ashgrove Nursing Home comprises a mixture of individual mature trees and two coniferous hedge groups. The vegetation is typical of an established care-home setting, providing screening, enclosure, and localised amenity. The survey identified a total of eight individual trees (T1–T8) and two hedge groups (H1 & H2), representing a modest but meaningful arboricultural resource.

3.1.2 The tree population is dominated by mature broadleaf species including *Ilex aquifolium*, *Aesculus hippocastanum*, *Tilia europaea*, and *Taxus baccata*, with two groups of Cupressocyparis leylandii forming boundary hedging. Condition varies considerably across the site, with several trees exhibiting good long term prospects, while others present significant structural defects or have already declined beyond recovery.

3.1.2 Table 1 below provides quality assessment summary

Table 1: Tree Quality Assessment Summary.

A	B	C	U
0.	T4, T5, T6, T7.	H1, H2.	T1, T2, T3, T8.
Total: 0	Total: 4	Total: 0	Total: 4

3.1.3 The tree appears to be covered by a Tree Preservation Orders. However, the specific Order number and designation are not shown on the publicly available website. As such, no works should be undertaken on the tree until its protected status has been formally confirmed with Wrexham Council. It remains essential that the Local Planning Authority verifies whether the tree is subject to a TPO, for the purpose of this proposal.

4.0 Arboricultural Impact Assessment

4.1 Outline Effect on the Trees from Development

4.1.1 T1, T2, T3 and T8 are identified for removal due to tree condition rather than development pressure. Each has a markedly limited life expectancy arising from either declining vitality or significant structural defects that cannot be reliably remediated. T1 and T2 are already in a dead or dying state, offering no realistic prospect of recovery. T3 and T8, both mature horse chestnuts, exhibit extensive internal decay associated with historic cavities, concrete infill, large open wounds and partially occluded defects; as horse chestnut compartmentalises poorly, these dysfunctions inevitably progress and cannot be stabilised through woundwood development or targeted management. The extent of decay could only be quantified through invasive investigation, yet given the species' poor ability to wall off decay, the advanced nature of the defects, and the increasing risk posed to highway and site users over time, further investigation would be disproportionate and retention unjustifiable. Removal is therefore the only appropriate and safe course of action.

4.1.2 T5 and T6 are proposed for removal to facilitate the development rather than due to any inherent defect. Both trees occupy positions that directly conflict with the required access arrangements and the modified RPAs necessary due to site restrictions on root growth development. Retention would impose disproportionate constraints on the layout, and any attempt to engineer around their RPAs would result in inappropriate ground level changes, construction pressures, or unsustainable protection measures. In this context, and given the need to deliver a workable access strategy, the removal of T5 and T6 represents a practical and proportionate arboricultural response.

4.1.3 To offset the loss of trees identified for removal, it is recommended that six new high quality replacement trees are incorporated into the site's landscape scheme. Suitable species include Fastigiate Oak (*Quercus robur 'Fastigiata'*) and Fastigiate Beech (*Fagus sylvatica 'Dawyck'*), both of which provide strong vertical form, excellent longevity, and appropriate stature for the setting. Replacement trees should be specified as 12–14 cm girth, container-grown or root balled stock, planted with appropriate irrigation and staking to ensure successful establishment. These compensatory plantings will reinforce long-term canopy cover, enhance site character, and provide a meaningful arboricultural contribution within the final landscape design.

4.1.4 All retained trees will be safeguarded throughout the construction phase using Tree Protection Fencing (TPF) installed in accordance with BS5837:2012. The fencing will be positioned at the edge of each Root Protection Area (RPA) as shown on the Tree Protection Plan, creating secure Construction Exclusion Zones within which no access, storage, excavation, or ground disturbance will occur. The fencing will remain in place for the full duration of the works and may only be removed once all construction activity is complete and the project arboriculturist has confirmed that no further risk to retained trees exists.

4.1.5 No details have been provided regarding the routing or installation of proposed underground services. In the absence of confirmed service alignments, it is assumed that all new service runs will be designed and installed in full accordance with NJUG Volume 4, ensuring that excavation, installation methods, and separation distances are compatible with the protection of retained trees and their Root Protection Areas. Any service works within or adjacent to RPAs must follow the prescribed hand-dig or trenchless techniques to avoid avoidable root damage and maintain compliance with BS5837.

5.0 Arboricultural Method Statement Proposals

5.1.1 An Arboricultural Method Statement (AMS) will be required to ensure that all aspects of the proposed development are carried out in full accordance with the tree protection recommendations set out in *BS5837:2012*. This scheme involves operations near retained trees, necessitating detailed, site-specific arboricultural control measures during key phases of construction.

5.1.2 Programme of Operations (Sequence of Works)

- Pre-start site meeting with the project arboriculturist and site manager.
- Marking out all RPAs and establishing Construction Exclusion Zones.
- Installation of Tree Protection Fencing in accordance with BS5837.
- Removal of trees identified for removal (T1, T2, T3, T5, T6, T8).
- Clearance of surface vegetation and debris within working areas.
- Establishment of site access routes and positioning of welfare and storage outside RPAs.
- Installation of temporary ground protection where required for access.
- Completion of any service installation works, adhering to NJUG Volume 4.
- Installation of hard surfaces, foundations, and proposed levels as per approved plans.
- Removal of temporary ground protection and final site tidying
- Post-construction arboricultural inspection and sign-off

6.0 ARBORICULTURAL METHOD STATEMENT (AMS)

Site: LAND ADJACENT TO ASHGROVE NURSING HOME, CHESTER ROAD, GRESFORD, WREXHAM, LL12 8PP (the site).

6.1 Introduction and Purpose

6.1.1 This Arboricultural Method Statement (AMS) has been prepared to support the client's due diligence process in relation to proposed lawful development at the above address.

6.1.2 The AMS should be read alongside the accompanying Arboricultural Impact Assessment (AIA) and the associated Tree Protection Plan (TPP). All data used in the preparation of the TPP is derived from the tree survey undertaken for the AIA.

6.1.3 The purpose of this AMS is to ensure that construction activities are carried out in a manner that avoids avoidable harm to retained trees and complies with the good-practice principles set out in BS5837:2012.

7.0 CAVEATS AND LIMITATIONS

7.1.1 This AMS provides commentary on matters relating to tree protection measures, and the management of roots and crowns. It has been produced by a suitably qualified and experienced arboriculturist. Any matters beyond this are outside the competence of the author.

7.1.2 This AMS is based on the data collected during the tree survey for the AIA. No subsequent reassessment of the trees has been undertaken. Any changes in tree condition or site circumstances occurring after the survey date fall outside the scope of this AMS.

7.1.3 This AMS has been produced using information supplied by the client. No responsibility can be taken for any loss or additional costs arising from undisclosed information or site constraints that conflict with the recommendations of this report. Should such issues arise, an updated AMS should be obtained.

7.1.4 Where reference is made to tree works, these are expected to be undertaken in accordance with BS3998:2010 – Tree Work: Recommendations. Any contractor undertaking such works must be appropriately qualified, experienced and insured.

8.0 GENERAL TREE PROTECTION MEASURES

8.1.1 No materials, spoil, equipment, or machinery shall be stored within the Root Protection Areas (RPAs) of any retained trees. Site parking, welfare units, and accommodation must not be located within RPAs.

8.1.2 No fires shall be lit within 15 metres of any tree on or adjacent to the site.

8.1.3 All deliveries, unloading, and movement of machinery shall be supervised by a banksman where appropriate to prevent inadvertent damage to retained trees.

9.0 SITE SPECIFIC CONSTRUCTION NOTES

9.1.1 No vehicles, plant, or machinery will enter the CEZ at any stage. Access into protected areas is strictly prohibited.

9.1.2 All materials, equipment, and welfare units must be stored outside the CEZ and RPAs, with delivery routes planned to avoid protected zones.

9.1.3 No excavation, ground reduction, or soil disturbance will occur within or immediately adjacent to the modified RPA.

9.1.4 All contractors must receive a site induction covering tree protection measures, CEZ restrictions, and manual-handling requirements for scaffold erection.

9.1.5 Any accidental damage to TPF, or ground within the CEZ must be reported immediately to the project arboriculturist, and works paused until instructions are provided.

9.1.6 No pruning or canopy works to trees are required for the development. Any future maintenance (not currently foreseeable) must follow BS3998:2010 and the recently permitted management regime.

9.1.7 TPF will remain in place until all heavy construction activities are complete and removal is authorised by the project arboriculturist.

9.1.8 A final arboricultural inspection will be undertaken to confirm compliance and ensure no adverse impact on health, stability, or long-term viability of retained trees.

10.0 Arboricultural Supervision

10.1.1 **Arboricultural supervision will be required at key stages of the project** to ensure full compliance with the Tree Protection Plan (TPP), the modified Root Protection Area (RPA), and all BS5837:2012 protection measures relating to T1, the veteran Oak.

10.1.2 Supervision will include the following:

- **Pre-commencement site meeting** with the contractor to confirm the modified RPA, Construction Exclusion Zone (CEZ), requirements, and manual-handling restrictions for scaffold erection.
- **Attendance during installation of Tree Protection Fencing (TPF)** to verify correct positioning to the crown spread and ensure existing walls/fences are appropriately integrated into the CEZ.
- **Periodic compliance visits** throughout construction to ensure that no encroachment, storage, excavation, or ground disturbance occurs within the modified RPA.
- **Immediate response to any accidental damage** or deviation from the AMS, with authority to pause works until corrective measures are agreed.

11.0 Periodic Inspection, Completion and Sign-Off.

11.1.1 Periodic Inspection Schedule

- **Pre-commencement inspection** Verification of Tree Protection Fencing (TPF), Construction Exclusion Zones (CEZs), access routes, and prior to works beginning.
- **Early-stage construction inspection** Within the first two weeks of construction activity to ensure TPF remains intact, no encroachment has occurred, and site operations are following the AMS.
- **Monthly compliance inspections** Regular scheduled visits throughout the construction period to confirm continued adherence to tree protection measures, correct use of temporary ground protection (where required), and compliance with NJUG Volume 4 for any service installation.
- **Supervised works inspections** Additional visits triggered by any activity occurring close to RPAs, including service installation, level changes, or operations requiring arboricultural supervision.
- **Post-major-works inspection** Conducted once heavy construction activities are complete to ensure no damage, compaction, contamination, or unauthorised access has occurred within RPAs.
- **Final inspection and sign-off** Confirmation that all retained trees remain unharmed, all protective measures have functioned as intended, and TPF can be safely removed. A formal sign-off statement will be issued.

11.1.2 Upon completion of all heavy construction activities, the project arboriculturist will undertake a final inspection to confirm:

- That all retained trees have remained unharmed and that no unauthorised encroachment, excavation, or ground disturbance has occurred within any Root Protection Area.
- That Tree Protection Fencing have been correctly maintained throughout the works and remain fully effective at the point of inspection.
- That no damage, compaction, contamination, or changes in levels have occurred that could compromise the long-term health or stability of retained trees.
- That all construction activities with potential arboricultural impact have been completed and no further protective measures are required.

11.1.3 Only once this final inspection has been completed and the project arboriculturist has confirmed compliance may the Tree Protection Fencing be removed. A formal sign-off statement will then be issued, confirming that the development has been carried out in accordance with the approved Arboricultural Method Statement and Tree Protection Plan.

11.1.4 Following this inspection, the arboriculturist will issue a formal sign-off statement confirming that the development has been carried out in accordance with BS5837:2012, the AMS, and the approved TPP, and that no adverse impact has been identified.

12.0 Contractor Responsibilities

12.1.1 All contractors working on the site must comply with the Arboricultural Method Statement (AMS), Tree Protection Plan (TPP), and BS5837:2012 requirements.

12.1.2 Contractors are responsible for:

- Adhering to all CEZ and RPA restrictions.
- Ensuring no vehicles, plant, or machinery enter CEZ.
- Following manual-handling requirements for scaffold erection.
- Preventing storage of materials or equipment within RPAs.
- Reporting any accidental damage immediately to the project arboriculturist.
- Maintaining the integrity of TPF and TGP throughout the works.

12.1.3 Failure to comply with these requirements may result in works being paused until corrective measures are agreed with the project arboriculturist.

14.0 Conclusions

14.1.1 The proposed assessed in accordance with the principles and requirements of BS5837:2012, ensuring that all retained trees are fully protected throughout the development process. The modified Root Protection Area (RPA), and adjusted to reflect realistic on site constraints, provides a robust and defensible basis for managing below ground impacts. The development sits entirely outside both the crown spread and the functional rooting area, requiring no pruning, excavation, or foundation works within or adjacent to the RPA.

14.1.2 Comprehensive protection measures, including Tree Protection Fencing (TPF), Construction Exclusion Zones (CEZ), and site monitoring ensure that ground conditions remain undisturbed and that the physiological functioning of retained trees are safeguarded. The AMS sets out a clear, enforceable programme of operations supported by arboricultural supervision at key stages, ensuring full compliance with the Tree Protection Plan (TPP).

Signed: 

Craig Watkins Principal Consultant and Director

Date: 30th June 2026.

Appendices

APPENDIX 1 -

GLOSSARY 0F COMMON TERMS.

- Abscission. The shedding of a leaf or other short lived part of a woody plant.
- Abiotic. Pertaining to non living agents e.g environmental factors.
- Absorptive Roots. Non-woody short lived roots, generally having a diameter less than one millimetre, the primary function of which is the uptake of water and nutrients.
- Access facilitation pruning. One off pruning operation to provide access for development operation. Pruning that will not be detrimental to trees health or amenity.
- Arboricultural Method Statement. A methodology for the implementation of development where encroachment within the RPA has the potential to cause damage or loss of retained trees.
- Arboriculturist. Someone who through relevant training and experience has gained knowledge in the expertise of trees.
- Adaptive Growth. The process by where wood formation rates increasing in the cambial zone, as well as wood quality, responds to gravity and other forces acting on the cambium.
- Adaptive roots. The adaptation of existing roots; or a production of new roots in response to damage or decay.
- Adventitious buds, roots, shoots. Which grow in other than primary apical control.
- Anchorage. The process in which a tree uses its roots system to support itself within the soil structure.
- Arisings. Parts of the tree that has been removed for disposal, branches, leaves, roots etc.
- Bacteria. Microscopic single-celled organisms, many species of which break down dead organic matter, and some of which cause diseases in other organisms.
- Bark. A term usually applied to all the tissues of a woody plant lying outside the vascular cambium, thus including the phloem, cortex and periderm; occasionally applied only to the periderm or the phellem.
- Basidiomycotina (Basidiomycetes). One of the major taxonomic groups of fungi; their spores are borne on microscopic peg-like structures (basidia), which in many types are in turn borne on or within conspicuous fruit bodies, such as brackets or toadstools. Most of the principal decay fungi in standing trees are basidiomycetes.
- Bolling. A term sometimes used to describe pollard heads.

- Bottle-butt. A broadening of the stem base and buttresses of a tree, in excess of normal and sometimes denoting a growth response to weakening in that region, especially due to decay involving selective delignification.
- Bracing. The use of rods or cables to restrain the movement between parts of a tree.
- Branch:
  Primary. A first order branch arising from a stem
  Lateral. A second order branch, subordinate to a primary branch or stem and bearing sub-lateral branches.
  Sub-lateral. A third order branch, subordinate to a lateral or primary branch, or stem and usually bearing only twigs.
- Branch bark ridge. The raised arc of bark tissues that forms within the acute angle between a branch and its parent stem.
- Branch collar. A visible swelling formed at the base of a branch whose diameter growth has been disproportionately slow compared to that of the parent stem; a term sometimes applied also to the pattern of growth of the cells of the parent stem around the branch base.
- Brown-rot. A type of wood decay in which cellulose is degraded, while lignin is only modified.
- Buckling. An irreversible deformation of a structure subjected to a bending load.
- Buttress zone. The region at the base of a tree where the major lateral roots join the stem, with buttress-like formations on the upper side of the junctions.
- Canker. Area of dead cambium killed by overlying pathogenic tissues.
- Cavity. A hole in the woody structure of the tree; often caused through decay.
- Cleaning out. The removal of dead, diseased crossing branches, damaged branches and alien structures.
- Competent person. Person with training and experience in accordance with the proposed matter being addressed, having a understanding of a particular matter being approached.
- Condition. An indication of the physiological vitality of a tree, but not the stability of a tree.
- Construction. A site based operation that has the potential to affect retained trees.
- Construction Exclusion Zone. An area based on the RPA from which construction activity is prohibited.

- Coppicing. Removal of all aerial parts of the tree leaving a stump for regeneration of new shoot.
- Crown/canopy. The parts of the tree that supports the leaves.
- Crown lifting. The removal of limbs and small branches to a specified height above ground level.
- Crown thinning. The removal of a proportion of secondary branch growth throughout the crown to produce an even density well balanced crown structure.
- Crown reduction/reshaping. Removal in the height to a specified description to maintain a flowing crown structure.
- Deadwood. Non–functional branches which no longer support natural growing conditions of the tree, but may be beneficial for the support of habitats.
- Defect. Any area of the tree that longer has a optimal mechanical uniformity of stress, making the tree unsuitable for its location.
- Dieback. Death of woody parts of the tree starting at distal ends of the tree.
- Disease. Damage occurring to living organisms as a result of pathenogenic micro-organisms.
- Distal. Furthest distance away from the main body of the tree.
- Dysfunction. In woody tissues, the loss of physiological function, especially water conduction, in sapwood.
- Epicormic growth. Growth from dormant or adventitious buds, not developing from the first shoot.
- Girdling roots. A circling root which constricts the stem or roots, with the potential to cause death and the restriction of flow within the phloem.
- Heartwood. Dysfunctional xylem which no longer has conductive properties, but which has become an integral structural part of the tree.
- Heave. The swelling of shrinkable clay soils, often when vegetation has been removed allowing soil rehydration to develop, with the potential for listing structures i.e walls.
- Included bark/acute forks. Face to face contact of bark usually at fork unions, or branch unions.
- Lopping/Topping. A term used to describe the removal of large sized branches.
- Mulch. Material lay down over the rooting area of trees to suppress weed competition, increase moisture retention and increase some cases organic material and nutrients.
- Pathogen. A micro-organism that causes disease within another organism.

- Phytotoxic. Toxic to plants.
- Pollarding. The removal of the tree canopy to produce knuckles where new growth develops and is removed cyclically usually performed on young trees.
- Pruning. Selective removal of parts of the tree to achieve a desired outcome.
- Root protection area. An area around a tree identified by multiplying the stem diameter at 1.5 by 12 to produce a radial area or rooting volume around a tree to be protected. BS 5837 2012.
- Service. Any above and below ground structure or apparatus for utility provision.
- Size of part. Relating to risk assessments, identifying the size of the hazard, or parts of a tree which may cause harm if failure occurs.
- Stem(s). The main structure from the ground up supporting the crown.
- Stress. In plants, the physiological depletion as a result of environmental influences.
- Structure. A manufactured object, such as building, roads, path, wall or excavated structures.
- Structural roots. The primary larger diameter roots which hold and support the aerial parts of the tree.
- Subsidence. The shrinkage of soil through the absorption of water via vegetation and the sinking effects on surrounding architectural structures.
- Targets. In risk assessment, persons or property at risk of harm as a result of a hazard (falling tree, branch etc).
- Tree Protection Plan. A scaled drawing informed by descriptive text where necessary, based upon finalised site proposals, showing trees for retention and illustrating the tree and landscape protection measures.
- Veteran tree. Tree that, by recognized criteria, shows features of biological, cultural or aesthetic characteristics of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned.
- Windthrow. The blowing over a tree at its roots.

2. Tree Survey schedule. (Attached Separetely)

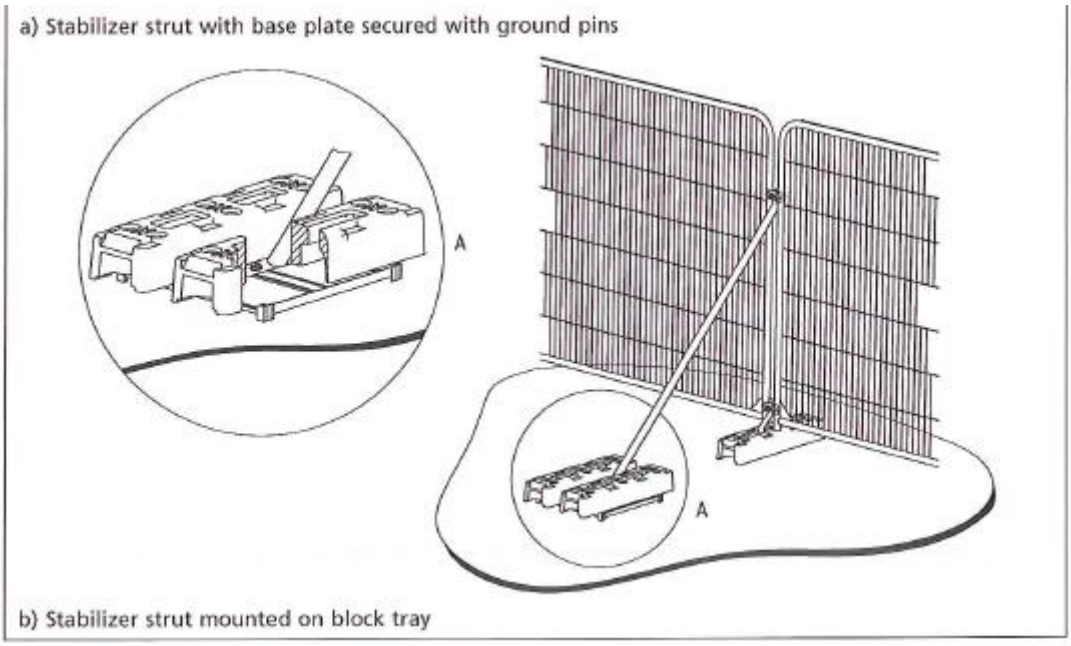
3. Tree Categorisation Table 1 (BS5837:2012)

Table 1 **Cascade chart for tree quality assessment**

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have a serious, 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.*			See Table 2
	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)	See Table 2
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	See Table 2
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	See Table 2

4. Plans (And See Attached Separately)

5. Specification for Tree Protection Barriers (used only where appropriate)



6. Signage to be Attached to Tree Protection Fencing





7. References

BS5837:2012. Trees In Relation To Design, Demolition, and Construction – Recommendations. British Standards Institute. London, UK.

BS 3998:2010. Tree work. Recommendations. British Standards Institute. London, UK. NJUG Volume 4 2007.