

Tree condition report

February 2026



Report no.: TWR-0129

Client: Blackburn Rovers Senior Training Centre (STC)

Site Address: Brockhall Village, Old Langho, Blackburn BB6 8FA

Agent: Thomas Banks (Certified arborist and owner of Greenbanks Arb. Ltd.)

Report type: Negative recording walkover tree risk assessment

Tree(s) Considered: All trees within and surrounding the three sites including;

Senior training centre (STC), Hillside Cottages 1 & 2, Ribble view,

And the Academy grounds.

INTRODUCTION

This report has been undertaken to outline any hazards identified in the trees located at the site above. The aim is to provide the necessary precautions to be carried out in order to minimise the likelihood of an incident occurring, which could result in damage or harm: i.e. branch/root plate failure, falling deadwood etc. The nature of trees is constantly changing due to factors such as severe weather conditions, climate change, pests and diseases etc. Therefore, it is recommended that the regular inspection of trees is carried out by a qualified and experienced arboricultural consultant to reduce the potential risk that may occur.

Survey carried out on *Monday 9th February*. The weather was dry and overcast with spells of sunshine.

Survey and inspection method

The trees were inspected at ground level following Visual Tree Assessment (VTA) protocol. No advanced techniques (i.e. Aerial Tree Inspection ((ATI)), internal decay detection) were utilised during this assessment.

Limitations of the report

Trees are dynamic structures that can never be guaranteed 100% safe; even in a good state they can suffer damage under average conditions. Regular inspections can prevent hazards and allow for remedial action to be carried out before they reach an unsafe state.

Any implications concerning buildings and their foundations within the area are beyond the scope of this report. A structural engineer would need to be consulted and the analysis dealt with separately. General comments may be noted for obvious structural damage, which may be attributed to trees discussed within this report.

Statutory obligations

Trees which are covered by Tree Preservation Orders [TPO's] or are within a Conservation Area [CA] requiring work to be carried out will require the consent from your Local Planning Authority [LPA]. It is necessary to gain confirmation from the LPA of any TPO's or CA's on the site, and to follow the necessary application procedure if tree surgery or indeed felling, is required in respect of protected trees. Full planning consent will however, override the need for a separate application, providing that details of all tree works were included in the submission and subsequently approved by the local authority.

It is a criminal offence under normal circumstances to disturb or destroy - whether intentional or unintentional - the nesting sites of wild birds or the roost sites of bats, under the 'Wildlife & Countryside Act 1981 and the 'Countryside and Rights of Way Act 2000'.

Therefore, avoid carrying out significant tree works during the bird nesting season [March to August] and ensure that trees are inspected for signs of bat roosts and/or bat activity before starting any tree work.

CIVIL LAW REGARDING TREE OWNERSHIP AND DUTY OF CARE

Under civil law the owner of the land on which a tree stands, together with any party who has control over the tree's management, has a duty of care to take reasonable steps to prevent or minimise the risk of personal injury and/or damage to property from any tree located within the curtilage of the land in question.

In turn, it is accepted that these steps should normally include commissioning a qualified and experienced arboriculturist to survey the trees in order to identify and appraise any risk of harm to persons or damage to property that it may present and, where unacceptable risks are identified, taking suitable remedial action to negate or reduce those risks accordingly.

PRIORITY RATING

Very High	Action to be taken immediately
High	Work should be implemented within 4 weeks
Moderate	Work should be implemented within a plan of works (within 6 months)
Low	Work that is not essential but will benefit the trees and/or their surroundings. Should be undertaken when funding is available.

Tree no.	Species	Life stage	Height (m)	DBH (mm)	Crown radius (m)	Vitality	Life Expectancy (Years)	Condition / Comments	Management Recommendations	Priority rating
T1	Ash <i>Fraxinus</i>	Y	6	200	n/a	Dead	n/a	<ul style="list-style-type: none"> Ash Dieback Disease (ADD): zero life can be identified. Failure imminent: damage to health or vehicles is likely. 	<ul style="list-style-type: none"> Fell/Remove. 	High
T2	Goat Willow <i>Salix caprea</i>	EM	16	800	6	Fair	20+	<ul style="list-style-type: none"> V-shaped unions with signs of occluded unions, increased risk of splitting/branch failure. Risk of failure over carpark/drive 	<ul style="list-style-type: none"> Crown reduction by 2-3 meters. OR Pollard: retain 5-8 meters of stem. 	Moderate
T3	Willow <i>Salix</i>	EM	16	300	3	Fair	20+	<ul style="list-style-type: none"> Heavy lean over the carpark, with partial exposure to wind. Unbalanced crown due to previously failed branch. Likelihood of failure during high winds is probable. 	<ul style="list-style-type: none"> Pollard: retain 5-8 meters of stem. 	Moderate
T4	Common Lime <i>Tilia x vulgaris</i>	SM	15	300	4	Poor	<10	<ul style="list-style-type: none"> Unbalanced crown with a high potential for failure over footpath to training facilities. Structural defects in the trunk with wood decaying fungus present (<i>Kretzschmaria deusta</i>) 	<ul style="list-style-type: none"> Fell/Remove 	High
T5	Ash <i>Fraxinus</i>	SM	17	400	6	Fair	<10	<ul style="list-style-type: none"> Ash Dieback Disease (ADD): 50-60% foliage Branch/tree failure likely to cause damage to person(s) and/or training facilities. 	<ul style="list-style-type: none"> Crown removal: retain 6m monolith for habitat value. 	Moderate
T6	Horse chestnut <i>Aesculus hippocastanum</i>	EM	18	700	7	Good	20+	<ul style="list-style-type: none"> Crown spread encroaches the training facilities. 	<ul style="list-style-type: none"> Reduce branches away from fenceline, allowing a 2.5m clearance. Maintaining an acceptable canopy shape. 	Moderate

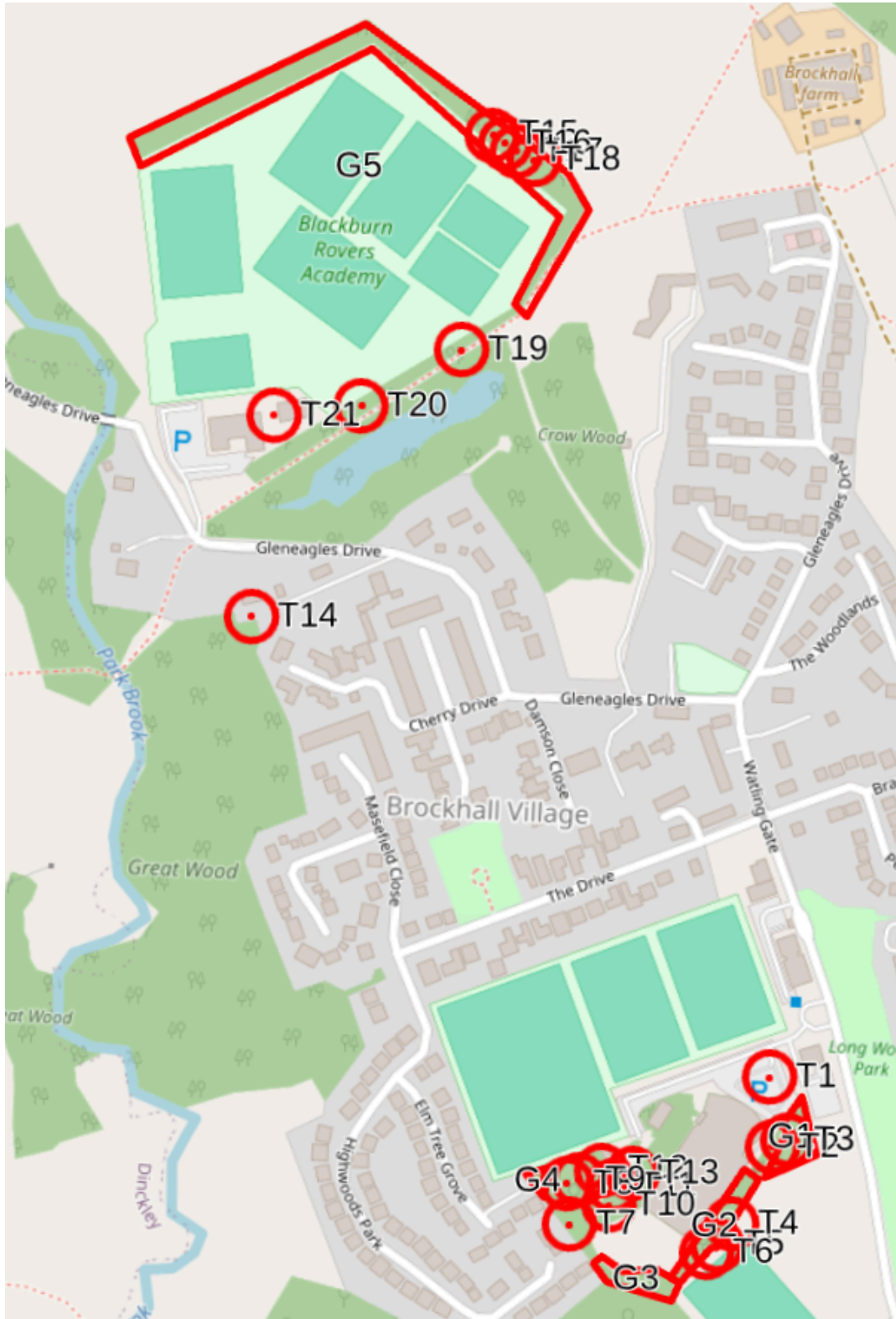
Tree no.	Species	Life stage	Height (m)	DBH (mm)	Crown radius (m)	Vitality	Life Expectancy (Years)	Condition / Comments	Management Recommendations	Priority rating
T7	Ash <i>Fraxinus</i>	EM	19	700	6	Poor	<10	<ul style="list-style-type: none"> Ash Dieback Disease (ADD): 40-50% foliage Woodland grown tree with 75% of canopy growth on one side of the tree. Heavily weighted towards nearby houses. likelihood of branch/tree failure probable 	<ul style="list-style-type: none"> Crown removal: retain 6m monolith. 	Moderate
T8	Alder <i>Alnus</i>	FM	20	600	5	Poor	<10	<ul style="list-style-type: none"> The tree has likely reached its life expectancy and has begun stages of decline. Potential failure on a nearby footpath. Wood decaying fungus <i>Chondrostereum purpureum</i> present. 	<ul style="list-style-type: none"> Fell/Remove 	High
T9	Alder <i>Alnus</i>	Dead	19	600	n/a	Dead	n/a	<ul style="list-style-type: none"> Standing dead stem Imminent risk of failure 	<ul style="list-style-type: none"> Fell/remove 	Very high
T10	Ash <i>Fraxinus</i>	M	18	700	4	Poor	<10	<ul style="list-style-type: none"> Ash Dieback Disease (ADD): 40-50% foliage Located over a well used drive by grounds staff, likelihood of branch/tree failure probable. 	<ul style="list-style-type: none"> Crown removal: retain 6m monolith. 	Moderate
T11	Ash <i>Fraxinus</i>	M	18	400	3	Poor	<10	<ul style="list-style-type: none"> Ash Dieback Disease (ADD): 50-60% foliage Located over a well used drive by grounds staff, likelihood of branch/tree failure probable. 	<ul style="list-style-type: none"> Crown removal: retain 6m monolith. 	Moderate

Tree no.	Species	Life stage	Height (m)	DBH (mm)	Crown radius (m)	Vitality	Life Expectancy (Years)	Condition / Comments	Management Recommendations	Priority rating
T12	Horse chestnut <i>Aesculus hippocastanum</i>	EM	16	800	5	Fair	10+	<ul style="list-style-type: none"> Woodland grown tree, weighted towards nearby buildings. Other targets include footpaths, and car parks within falling distance. Signs of bleeding canker 	<ul style="list-style-type: none"> Crown clean: Remove deadwood above 200mm in diameter. Crown reduction by 1.5 - 2m. 	Moderate
T13	Horse chestnut <i>Aesculus hippocastanum</i>	M	18	1000	8	Poor/ Collapsing	<10	<ul style="list-style-type: none"> Woodland grown tree, heavily weighted towards nearby buildings. Other targets include footpaths, and car parks within falling distance. Signs of the wood decaying fungus, Honey fungus. Evidence of structural defect throughout the canopy with significant branch failures and occluded unions. 	<ul style="list-style-type: none"> Crown removal: retain 5-8m monolith for habitat value. 	High
T14	Ash <i>Fraxinus</i>	M	25	700	8	Good	10+	<ul style="list-style-type: none"> Ash Dieback Disease (ADD): 75-100% foliage 	<ul style="list-style-type: none"> Monitor to ensure if/when the tree's condition worsens necessary works are carried out. 	Low
T15	Leyland cypress <i>X Cuprocyparis leylandii</i>	M	16	400	n/a	Poor	<10	<ul style="list-style-type: none"> Hedge row / fence line tree Failed stem/rootplate 	<ul style="list-style-type: none"> Process the failed tree to remove from the fence and/or to make the area safe. 	Moderate
T16	Leyland cypress <i>X Cuprocyparis leylandii</i>	M	16	400	n/a	Poor	<10	<ul style="list-style-type: none"> Hedge row / fence line tree Failed stem/rootplate 	<ul style="list-style-type: none"> Process to make the area safe. 	Moderate
T17	Leyland cypress <i>X Cuprocyparis leylandii</i>	M	16	400	n/a	Poor	<10	<ul style="list-style-type: none"> Hedge row / fence line tree Failed stem/rootplate 	<ul style="list-style-type: none"> Process to make the area safe. 	Moderate

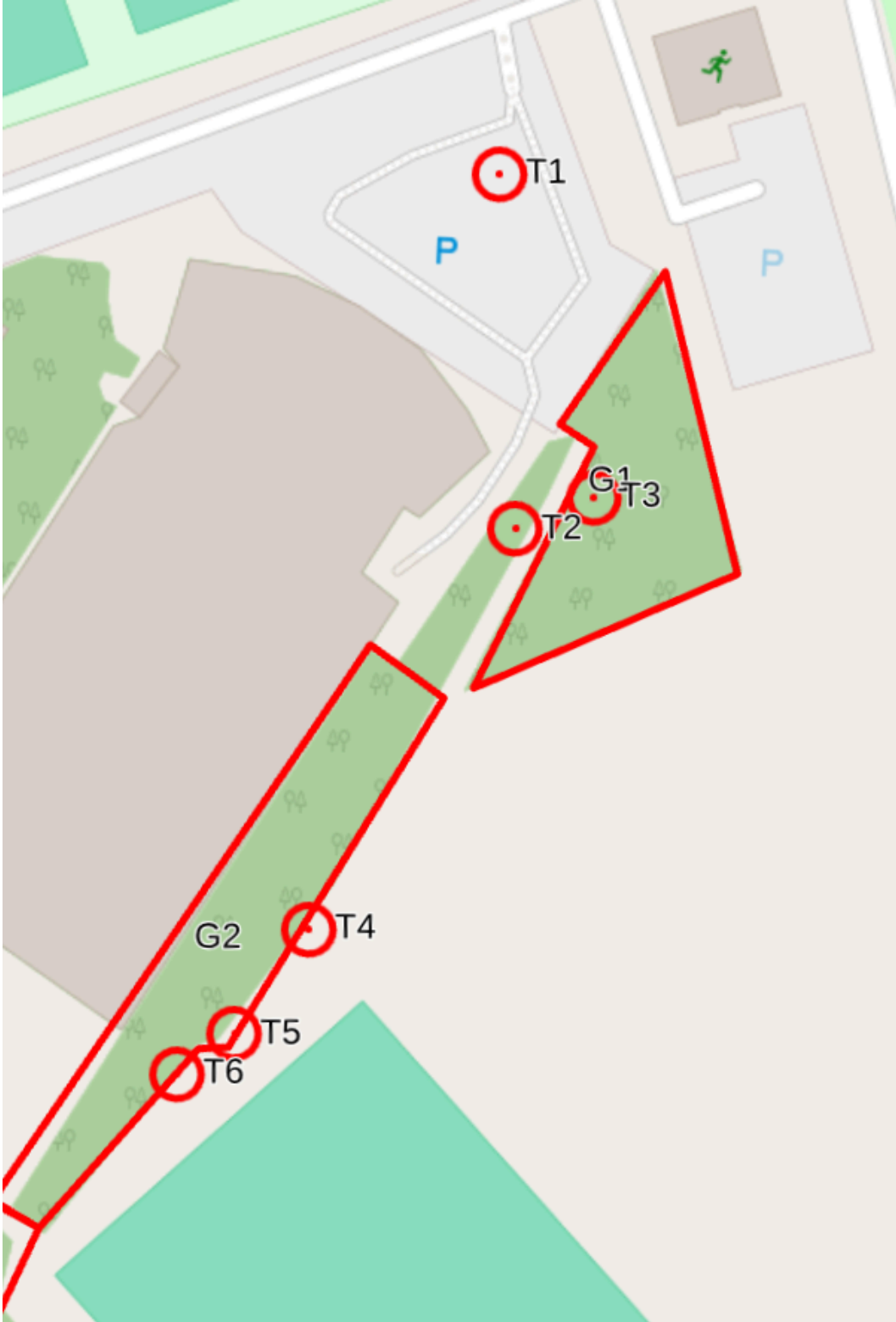
Tree no.	Species	Life stage	Height (m)	DBH (mm)	Crown radius (m)	Vitality	Life Expectancy (Years)	Condition / Comments	Management Recommendations	Priority rating
T18	Leyland cypress <i>X Cuprocypris leylandii</i>	M	16	400	n/a	Poor	<10	<ul style="list-style-type: none"> Hedge row / fence line tree Failed stem/rootplate 	<ul style="list-style-type: none"> Process to make the area safe. 	Moderate
T19	Sycamore <i>Acer pseudoplatanus</i>	EM	16	600	5	Fair/ Decaying	<10	<ul style="list-style-type: none"> Situated within a tree line over a public footpath and beside the academy training facilities. Multi stem from 4 metre Wood decaying fungus present; including Kretzschmaria deusta and Honey fungus 	<ul style="list-style-type: none"> Fell/remove. Stump removal is recommended. 	High
T20	Black poplar <i>Populus nigra</i>	M	25	1000	5	Fair/ Physical defect	10+	<ul style="list-style-type: none"> Situated within a tree line over a public footpath and beside the academy training facilities. Co-dominant stem from 1.5m with occluded V shape union Prone to failure if the defect worsens. 	<ul style="list-style-type: none"> Crown reduction by 3-4m, to alleviate weight loading. 	Moderate
T21	Common lime	SM	15	800	6	Good	20+	<ul style="list-style-type: none"> Located between storage and changing facilities Several occluded unions identified at 1m from ground level. Failure in extreme weather conditions is likely 	<ul style="list-style-type: none"> Crown thinning by 10-15%. Reduce weight while retaining a natural shape and alleviating the wind sail effect. 	Moderate

Tree no.	Species	Life stage	Height (m)	DBH (mm)	Crown radius (m)	Vitality	Life Expectancy (Years)	Condition / Comments	Management Recommendations	Priority rating
G1	Mixed Broadleaf woodland (including; Ash, Willow and Alder)	Y - SM	18	n/a	n/a	Poor - Fair	n/a	<ul style="list-style-type: none"> Partial - full protection from wind exposure. Crown sizes from small to medium Cracks in branches/stems and recent branch/rootplate failures Likelihood of failure on to the nearby carpark, pathway and training facilities. 	<ul style="list-style-type: none"> 7no. marked trees to be felled. Retaining suitable monoliths for habitat value where it is practically possible. Avoid leaving stems in the falling distance of pathways and training facilities. Brush to be appropriately stacked in woodland to create habitat. 	High
G2	Mixed Species woodland (including; Ash, Willow, Alder, Pine)	Y - SM	18	n/a	n/a	Poor - Fair	n/a	<ul style="list-style-type: none"> Partial - full protection from wind exposure. Crown sizes from small to medium Cracks in branches/stems and recent branch/rootplate failures Likelihood of failure on the nearby pathway and training facilities. 	<ul style="list-style-type: none"> 22no. marked trees to be felled. Retaining suitable monoliths for habitat value where it is practically possible. Avoid leaving stems in the falling distance of pathways and training facilities. 	High
G4	Mixed Broadleaf woodland (consisting mostly of Alder)	Y - SM	16	n/a/	n/a	Poor - Fair	n/a	<ul style="list-style-type: none"> Partial - full protection from wind exposure. Crown sizes from small to medium Evidence shows several of the trees have developed defects which have resulted in decline. Likelihood of failure on the nearby property and training facilities. 	<ul style="list-style-type: none"> 5no. marked trees to be felled. Brush to be appropriately stacked in woodland to create habitat. 	Moderate
G5	Tree/Hedge row. Consisting of Coniferous species (mainly Leyland cypress)	SM	16	n/a	n/a	Fair - Good	n/a	<ul style="list-style-type: none"> Full exposure to wind Several of the trees have failed due to extreme weather conditions. (see T15,16,17,18) Surrounding the Academy training facilities 	<ul style="list-style-type: none"> Reduce the height of all trees to approximately 10-13m 	Low

Map #1: Whole site, Including; STC, Hillside cottage 1 & 2, Ribble view, Academy.



Map #2: STC part 1/2



Map #3: STC part 2/2



Map #4: Hillside 1 & 2, Ribble view, Academy



Glossary

Age Class: **Y** young trees that have not yet established, **SM** Semi-Mature established trees up to 1/3 of expected height and crown, **EM** Early-Mature between 1/3 and 2/3 of expected height and crown, **M** Mature between 2/3 and full expected height and crown, **OM** Over-Mature crown beginning to break up and decrease in size, **S** Senescent crown in advance stage of break up.

Abscission The shedding of a leaf or other short-lived part of a woody plant, involving the formation of a corky layer across its base; in some tree species twigs can be shed in this way.

Abiotic Pertaining to non-living agents; e.g. environmental factors.

Absorptive roots Non-woody, short-lived roots, generally having a diameter of less than one millimetre, the primary function of which is uptake of water and nutrients.

Adaptive growth In tree biomechanics, the process whereby the rate of wood formation in the cambial zone, as well as wood quality, responds to gravity and other forces acting on the cambium. This helps to maintain a uniform distribution of mechanical stress.

Adaptive roots The adaptive growth of existing roots; or the production of new roots in response to damage, decay or altered mechanical loading.

Adventitious shoots Shoots that develop other than from apical, axillary or dormant buds; see also 'epicormic'.

Anchorage The system whereby a tree is fixed within the soil, involving cohesion between roots and soil and the development of a branched system of roots which withstands wind and gravitational forces transmitted from the aerial parts of the tree.

Architecture In a tree, a term describing the pattern of branching of the crown or root system.

Axil The place where a bud is borne between a leaf and its parent shoot.

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.

Bifurcation A term referring to a tree fork in the trunk giving rise to two roughly equal diameter branches. These forks are a common feature of tree crowns.

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.

Cambium Layer of dividing cells producing xylem (woody) tissue internally and phloem (bark) tissue externally.

Canker A persistent lesion formed by the death of bark and cambium due to colonisation by fungi or bacteria.

Canopy species Tree species that mature to form closed woodland canopy.

Cleaning out The removal of dead, crossing, weak, and damaged branches, where this will not damage or spoil the overall appearance of the tree.

Compartmentalisation The confinement of disease, decay or other dysfunction within an anatomically discrete region of plant tissue, due to passive and/or active defences operating at the boundaries of the affected region.

Compression strength The ability of a material or structure to resist

failure when subjected to compressive loading; measurable in trees with special drilling devices.

Compressive loading Mechanical loading which exerts a positive pressure; the opposite to tensile loading.

Condition An indication of the physiological vitality of the tree. Where the term 'condition' is used in a report, it should not be taken as an indication of the stability of the tree.

Construction exclusion zone Area based on the Root Protection Area (in square metres) to be protected during development, by the use of barriers and/or ground protection.

Crown/Canopy The main foliage bearing section of the tree, these terms are interchangeable.

Crown lifting 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 of foliage around a well-balanced branch structure.

Crown reduction/shaping A specified reduction in crown size whilst preserving, as far as possible, the natural tree shape.

Crown reduction/thinning Reduction of the canopy volume by thinning to remove dominant branches whilst preserving, as far as possible the natural tree shape.

Deadwood Branch or stem wood bearing no live tissues. Retention of deadwood provides valuable habitat for a wide range of species and seldom represents a threat to the health of the tree. Removal of deadwood can result in the ingress of decay to otherwise sound tissues and climbing operations to access deadwood can cause significant damage to a tree. Removal of deadwood is generally recommended only where it represents an unacceptable level of hazard.

Decurrent In trees, a system of branching in which the crown is borne on a number of major widelyspreading limbs of similar size (cf. excurrent).

In fungi with toadstools as fruit bodies, the description of gills which run some distance down the stem, rather than terminating abruptly.

Defect In relation to tree hazards, any feature of a tree which detracts from the uniform distribution of mechanical stress, or which makes the tree mechanically unsuited to its environment.

Delamination The separation of wood layers along their length, visible as longitudinal splitting.

Dieback The death of parts of a woody plant, starting at shoot-tips or root-tips.

Disease A malfunction in or destruction of tissues within a living organism, usually excluding mechanical damage; in trees, usually caused by pathogenic micro-organisms.

Distal In the direction away from the main body of a tree or subject organism (cf. proximal).

Dominance In trees, the tendency for a leading shoot to grow faster or more vigorously than the lateral shoots; also the tendency of a tree to maintain a taller crown than its neighbours.

Dormant bud An axial bud which does not develop into a shoot until after the formation of two or more annual wood increments; many such buds persist through the life of a tree and develop only if stimulated to do so.

Dysfunction In woody tissues, the loss of physiological function, especially water conduction, in sapwood.

DBH (Diameter at Breast Height) Stem diameter measured at a height of 1.5 metres (UK) or the nearest measurable point. Where measurement at a height of 1.5

metres is not possible, another height may be specified.

Endophytes Micro-organisms which live inside plant tissues without causing overt disease, but in some cases capable of causing disease if the tissues become physiologically stressed, for example by lack of moisture.

Epicormic shoot A shoot having developed from a dormant or adventitious bud and not having developed from a first year shoot.

Excrescence Any abnormal outgrowth on the surface of tree or other organism.

Excurrent In trees, a system of branching in which there is a well defined central main stem, bearing branches which are limited in their length, diameter and secondary branching (cf. decurrent).

Felling licence In the UK, a permit to fell trees in excess of a stipulated number of stems or volume of timber.

Flush-cut A pruning cut which removes part of the branch bark ridge and or branch-collar.

Girdling root A root which circles and constricts the stem or roots possibly causing death of phloem and/or cambial tissue.

Guying A form of artificial support with cables for trees with a temporarily inadequate anchorage.

Habit The overall growth characteristics, shape of the tree and branch structure.

Hazard beam An upwardly curved part of a tree in which strong internal stresses may occur without being reduced by adaptive growth; prone to longitudinal splitting.

Heartwood/false-heartwood/ripe wood Sapwood that has become dysfunctional as part of the natural aging processes.

Heave A term mainly applicable to a shrinkable clay soil which expands due to re-wetting after the felling of a tree which was previously extracting moisture

from the deeper layers; also the lifting of pavements and other structures by root diameter expansion; also the lifting of one side of a wind-rocked root-plate.

High canopy tree species Tree species having potential to contribute to the closed canopy of a mature woodland or forest.

Incipient failure In wood tissues, a mechanical failure which results only in deformation or cracking, and not in the fall or detachment of the affected part.

Included bark (ingrown bark) Bark of adjacent parts of a tree (usually forks, acutely joined branches or basal flutes) which is in face-to-face contact.

Increment borer A hollow auger, which can be used for the extraction of wood cores for counting or measuring wood increments or for inspecting the condition of the wood.

Infection The establishment of a parasitic micro-organism in the tissues of a tree or other organism.

Internode The part of a stem between two nodes; not to be confused with a length of stem which bear nodes but no branches.

Lever arm A mechanical term denoting the length of the lever represented by a structure that is free to move at one end, such as a tree or an individual branch.

Lignin The hard, cement-like constituent of wood cells; deposition of lignin within the matrix of cellulose microfibrils in the cell wall is termed Lignification.

Lions tailing A term applied to a branch of a tree that has few if any side-branches except at its end, and is thus liable to snap due to endloading.

Loading A mechanical term describing the force acting on a structure from a particular source; e.g. the weight of the structure itself or wind pressure.

Longitudinal Along the length (of a stem, root or branch).

Lopping A term often used to describe the removal of large branches from a tree, but also used to describe other forms of cutting.

Mature Heights (approximate): • Low maturing – less than 8 metres high

- Moderately high maturing – 8 – 12 metres high
- High maturing – greater than 12 metres high

Microdrill An electronic rotating steel probe, which when inserted into woody tissue provides a measure of tissue density.

Minor deadwood of a diameter less than 25mm and or unlikely to cause significant harm or damage upon impact with a target beneath the tree.

Mulch Material laid down over the rooting area of a tree or other plant to help conserve moisture; a mulch may consist of organic matter or a sheet of plastic or other artificial material.

Mycelium The body of a fungus, consisting of branched filaments (hyphae).

Occluding tissues A general term for the roll of wood, cambium and bark that forms around a wound on a woody plant (cf. woundwood).

Occlusion The process whereby a wound is progressively closed by the formation of new wood and bark around it.

Pathogen A micro-organism which causes disease in another organism.

Photosynthesis The process whereby plants use light energy to split hydrogen from water molecules, and combine it with carbon dioxide to form the molecular building blocks for synthesizing carbohydrates and other biochemical products.

Phytotoxic Toxic to plants.

Pollarding The removal of the tree canopy, back to the stem or primary branches. Pollarding may

involve the removal of the entire canopy in one operation, or may be phased over several years. The period of safe retention of trees having been pollarded varies with species and individuals. It is usually necessary to repollard on a regular basis, annually in the case of some species.

Primary branch A major branch, generally having a basal diameter greater than 0.25 x stem diameter.

Primary root zone The soil volume most likely to contain roots that are critical to the health and stability of the tree and normally defined by reference to BS5837 (2005) Trees in Relation to Construction Recommendations.

Priority Works may be prioritised, 1. = high, 5. = low.

Probability A statistical measure of the likelihood that a particular event might occur.

Proximal In the direction towards from the main body of a tree or other living organism (cf. distal).

Pruning The removal or cutting back of twigs or branches, sometimes applied to twigs or small branches only, but often used to describe most activities involving the cutting of trees or shrubs.

Radial In the plane or direction of the radius of a circular object such as a tree stem.

Rams-horn In connection with wounds on trees, a roll of occluding tissues which has a spiral structure as seen in cross-section.

Rays Strips of radially elongated parenchyma cells within wood and bark. The functions of rays include food storage, radial translocation and contributing to the strength of wood.

Reactive Growth/Reaction Wood Production of woody tissue in response to altered mechanical loading; often in response to internal defect or decay and associated strength loss (cf. adaptive growth).

Removal of dead wood Unless otherwise specified, this refers to the removal of all accessible dead, dying and diseased branchwood and broken snags.

Removal of major dead wood The removal of, dead, dying and diseased branchwood above a specified size

Respacing Selective removal of trees from a group or woodland to provide space and resources for the development of retained trees.

Residual wall The wall of non-decayed wood remaining following decay of internal stem, branch or root tissues.

Root-collar The transitional area between the stem/s and roots.

Root-collar examination

Excavation of surfacing and soils around the root-collar to assess the structural integrity of roots and/or stem.

Root protection area (RPA) An area of ground surrounding a tree that contains sufficient rooting volume to ensure the tree's survival. Calculated with reference to BS5837 (2005).

Root zone Area of soils containing absorptive roots of the tree/s described. The Primary root zone is that which we consider of primary importance to the physiological well-being of the tree.

Sapwood Living xylem tissues.

Secondary branch A branch, generally having a basal diameter of less than 0.25 x stem diameter.

Selective delignification A kind of wood decay (white-rot) in which lignin is degraded faster than cellulose.

Shedding In woody plants, the normal abscission, rotting off or sloughing of leaves, floral parts, twigs, fine roots and bark scales.

Silvicultural thinning Removal of selected trees to favour the development of retained specimens to achieve a management objective.

Simultaneous white-rot A kind of wood decay in which lignin and cellulose are degraded at about the same rate.

Snag In woody plants, a portion of a cut or broken stem, branch or root which extends beyond any growing-point or dormant bud; a snag usually tends to die back to the nearest growing point.

Soft-rot A kind of wood decay in which a fungus degrades cellulose within the cell walls, without any general degradation of the wall as a whole.

Spores Propagules of fungi and many other life-forms; most spores are microscopic and dispersed in air or water.

Shrub species Woody perennial species forming the lowest level of woody plants in a woodland and not normally considered to be trees.

Sporophore The spore bearing structure of fungi.

Sprouts Adventitious shoot growth erupting from beneath the bark.

Stem/s The main supporting structure/s, from ground level up to the first major division into branches.

Stress In plant physiology, a condition under which one or more physiological functions are not operating within their optimum range, for example due to lack of water, inadequate nutrition or extremes of temperature.

Stress In mechanics, the application of a force to an object.

Stringy white-rot The kind of wood decay produced by selective delignification.

Storm A layer of tissue which supports the fruit bodies of some types of fungi, mainly ascomycetes.

Structural roots Roots, generally having a diameter greater than ten millimetres, and contributing significantly to the structural support and stability of the tree.

Subsidence In relation to soil or structures resting in or on soil, a sinking due to shrinkage when certain types of clay soil dry out, sometimes due to extraction of moisture by tree roots.

Subsidence In relation to branches of trees, a term that can be used to describe a progressive downward bending due to increasing weight.

Taper In stems and branches, the degree of change in girth along a given length.

Target canker A kind of perennial canker, containing concentric rings of dead occluding tissues.

Targets In tree risk assessment (with slight misuse of normal meaning) persons or property or other things of value which might be harmed by mechanical failure of the tree or by objects falling from it.

Topping In arboriculture, the removal of the crown of a tree, or of a major proportion of it.

Torsional stress Mechanical stress applied by a twisting force.

Translocation In plant physiology, the movement of water and dissolved materials through the body of the plant.

Transpiration The evaporation of moisture from the surface of a plant, especially via the stomata of leaves; it exerts a suction which draws water up from the roots and through the intervening xylem cells.

Understorey A layer of vegetation beneath the main canopy of woodland or forest or plants forming this.

Understorey tree species Tree species not having potential to attain a size at which they can contribute to the closed high canopy of a woodland.

Vascular wilt A type of plant disease in which water-conducting cells become dysfunctional.

Vessels Water-conducting cells in plants, usually wide and long for hydraulic efficiency; generally not present in coniferous trees.

Veteran tree A loosely defined term for an old specimen that is of interest biologically, culturally or aesthetically because of its age, size or condition and which has usually lived longer than the typical upper age range for the species concerned.

White-rot A range of kinds of wood decay in which lignin, usually together with cellulose

and other wood constituents, is degraded.

Wind exposure The degree to which a tree or other object is exposed to wind, both in terms of duration and velocity.

Wind pressure The force exerted by a wind on a particular object.

Windthrow The blowing over of a tree at its roots.

Wound dressing A general term for sealants and other materials used to cover wounds in the hope of protecting them against desiccation and infection; only of proven value against fresh wound parasites.

Woundwood Wood with atypical anatomical features, formed in the vicinity of a wound.