# TREE SURVEY SCHEDULE

**PROJECT:** LAND ADJACENT TO GREENSETT, LANESIDE ROAD, NEW MILLS
**CLIENT:** GARETH HARDY
**REF:** CW/6833-SS1
**DATE:** 16 APRIL 2013

**SURVEYED BY:** G THOMAS
CHESHIRE WOODLANDS
**PAGE:** 1

| No. | Species | Age Range | Height (m) | Crown Spread (m) | Stem Dia. (mm) | Vitality | Comments | Management | Visual prominence | Retention Value Existing | Retention Value Proposed | BS5837 RPA Radius (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T1 | Oak *(Quercus robur)* | EM | 15 | 17 | 650 (AT 1.8M) | G | • Swelling to lower stem indicates possible presence of internal decay to a height of around 1.7m. Tapping with a nylon hammer revealed no audible signs of substantial hollowing and no signs of cracking were noted<br>• Clear stem to a height of 3.5 metres and general ground clearance of around 4.0 metres<br>• Branch pruning stubs in lower crown, where low secondary branches were recently removed or shortened<br>• Deadwood of up to 50mm diameter | • Retain and protect<br>• No work required | 2 | A | A | 7.8 |
| T2 | Oak | M | 15 | 17 | 720 | G | • Clear stem to 3.5 metres<br>• Minor deadwood of up to 75mm diameter<br>• Partially occluded branch pruning wound to north west side of stem at a height of 2.5 metres<br>• Growth patterns to mid and upper stem on the north west side indicate possible presence of internal cracking between 2.5 and 7.0 metres<br>• Ground clearance on the south side of 3.0 metres | • Retain and protect<br>• No work required | 2 | A | A | 8.7 |
| T3 | *Cotoneaster sp* | SM | 6 | 8 | 160 | G | • Internal ornamental planting of no particular merit in terms of its contribution to the wider landscape<br>• Partially supressed with crown biased to east | • Retain and protect<br>• No work required | 1 | C | C | 1.8 |

**Inspection was restricted where trees were ivy clad or located wholly or partially on neighbouring land or where vegetation obscured lower stems and root collars**
**All trees should be re-assessed at appropriate intervals to assess their mechanical integrity unless otherwise stated in the schedule**

**HEADINGS & ABBREVIATIONS**

**Age Range:** Y = Young, SM = Semi mature, EM = Early mature, M = Mature, PM = Post Mature.
**Stem Dia.** Stem diameter (measured at a height of approximately 1.5 metres) MS = multi-stemmed EST = Estimated
**Crown Spread:** Maximum crown diameter
**Vitality:** D = Dead, MD = Moribund, P = Poor, M = Moderate, G = Good
**Visual prominence:** Broad indication of contribution to the landscape. 0 = none, 1= very low up to 5 =very high, G = contribution to a wider group. Values take into consideration the potential contribution to the landscape. Our assessment of public visibility is influenced by safe life expectancy of the tree or group
**Retention Value Existing:** Broadly in line with BS5837 (2012) Table 1. Our valuation considers the merits of the tree or group in the context of the existing land-use
**Retention Value Proposed:** Broadly in line with BS5837 (2012) Table 1. Our valuation considers the merits of the tree or group in the context of a development proposal. U = Unsuitable for retention
**BS5837 RPA Radius:** Radius from the centre of the stem to the line of tree protection as set out in BS5837:2012

**TREE SURVEY SCHEDULE**

**PROJECT:** LAND ADJACENT TO GREENSETT, LANESIDE ROAD, NEW MILLS
**CLIENT:** GARETH HARDY
**REF:** CW/6833-SS1
**DATE:** 16 APRIL 2013

**SURVEYED BY:** G THOMAS
CHESHIRE WOODLANDS
**PAGE:** 2

| No. | Species | Age Range | Height (m) | Crown Spread (m) | Stem Dia. (mm) | Vitality | Comments | Management | Visual prominence | Retention Value Existing | Retention Value Proposed | BS5837 RPA Radius (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T4 | Weeping willow *(Salix sp)* | SM | 9 | 11 | 350 | G | • Recently topped at a height of 6.0 metres with dense re-growth from the topping points<br>• Past partial failure of a lateral branch in the lower crown which has subsequently fused and stabilised | • Retain and protect<br>• No work required | 2 | C | C | 4.2 |
| T5 | Crab apple (*Malus sylvestris)* | SM | 4.5 | 6 | 200 (AT 0.5M) | M | • Internal ornamental planting of no particular merit in terms of its contribution to the wider landscape<br>• Minor bark damage and decay to lower stem<br>• Bark necrosis to mid stem | • Retain and protect<br>• No work required | 1 | C | C | 2.4 |
| T6 | Ornamental Maple *(Acer sp)* | Y | 5 | 5 | 140 | G | • Internal ornamental planting of no particular merit in terms of its contribution to the wider landscape | • Retain and protect<br>• No work required | 1 | C | C | 1.8 |
| T7 | Laburnum *(Laburnum anagyroides*) | EM | 4.5 | 6.5 | MS ≤150 (EST) | M | • Shrouded by dense ivy | • Fell for development<br>• Grind stump to a depth of 0.3 metres | 1 | C | U | N/A |
| T8 | Ash *(Fraxinus excelsior)* | Y | 9 | 5 | 250 | G | • Most probably recent natural colonisation<br>• Growing abutting an ivy-clad stone boundary wall and with potential to displace the structure by annular increment growth of the lower stem and buttress roots<br>• Dense ivy colonising stem and crown | • Fell for development<br>• Grind stump to a depth of 0.3 metres | 3 | C | U | N/A |
| G1 | Ornamental conifer Stags Horn Sumach (*Rhus typhina)* Magnolia *(Magnolia sp)* Spruce *(Picea sp)* | Y | ≤4 | ≤1.5 | ≤100 | G | • Internal ornamental plantings of no particular merit in terms of its contribution to the wider landscape | • Remove for development | 1 | C | U | N/A |
| G2 | Mixed fruit trees | Y-SM | ≤5 | ≤3 | ≤130 | M-G | • Internal plantings of no particular merit in terms of their contribution to the wider landscape | • Retain and protect<br>• No work required | 1 | C | C | ≤1.5 |

**TREE SURVEY SCHEDULE**

**PROJECT:** LAND ADJACENT TO GREENSETT, LANESIDE ROAD, NEW MILLS
**CLIENT:** GARETH HARDY
**REF:** CW/6833-SS1
**DATE:** 16 APRIL 2013

**SURVEYED BY:** G THOMAS
CHESHIRE WOODLANDS
**PAGE:** 3

| No. | Species | Age Range | Height (m) | Crown Spread (m) | Stem Dia. (mm) | Vitality | Comments | Management | Visual prominence | Retention Value Existing | Retention Value Proposed | BS5837 RPA Radius (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| G3 | Mixed ornamental conifers<br>Holly *(Ilex aquifolium)*<br>Ash<br>Spruce<br>Yew *(Taxus baccata)*<br>Lilac *(Syringa vulgaris)* | Y-SM | ≤8 | ≤7 | ≤260 | M-G | • Closely spaced linear group of boundary trees and shrubs<br>• Several holly stems are probably the remnants of a former boundary hedge. Young ash are probably recent natural colonisation. The yew, conifers and spruce are ornamental garden plantings<br>• Removal and replacement with new boundary landscaping could provide long term amenity benefits<br>**G3/1 – Spruce**<br>• Ivy colonising stem and crown<br>• Reduced vitality<br>• Recently topped at a height of 6.5 metres | • Fell for development<br>• Grind stumps to a depth of 0.3 metres | 3 | C | U | N/A |
| H1 | Leyland cypress (*Cupressus x leylandii)*<br>Golden Leyland cypress *(Cupressocyparis leylandii)* | - | 3 | - | - | M | • Length of clipped party boundary hedge<br>• Slightly sparse to the centre where supressed by T2 | • Retain and protect<br>• Maintain at current dimensions by annual clipping | 1 | - | - | - |
| H2 | Leyland cypress | - | 2.5 - 3.5 | - | - | M | • Length of clipped internal screen hedging<br>• Sparse in places particularly to the eastern half where suppressed by adjacent trees and shrubs | • Remove for development | 1 | - | - | - |
| H3 | Leyland cypress | - | 3.5 | - | - | G | • Length of clipped internal screen hedging | • Remove for development | 1 | - | - | - |
| H4 | Leyland cypress<br>Sawara cypress *(Chamaecyparis pisifera)* | - | 3 | - | - | G | • Clipped internal hedge<br>• Maintained in the past by regular clipping save for the northern end which has been allowed to grow on in recent years | • Remove for development | 1 | - | - | - |
| S1 | Mixed ornamental shrubs<br>Yew<br>Holly | Y | ≤4.5 | - | - | G | • Linear shrub bed<br>• Maintained in the past by regular clipping | • Retain and protect<br>• Maintain at current dimensions by annual clipping | 1 | - | - | - |
| S2 | Mixed ornamental shrubs<br>Conifers | - | ≤3 | - | - | M-G | • Internal ornamental shrub bed | • Retain and protect<br>• No work required | 1 | - | - | - |
| S3 | *Rhododendron sp*<br>Lilac | - | ≤3 | - | - | M-G | • Internal ornamental shrub bed of clipped Rhododendron and dense lilac<br>• Colonised in places by dense ivy | • Remove for development | 1 | - | - | - |

**TREE SURVEY SCHEDULE**

**PROJECT:** LAND ADJACENT TO GREENSETT, LANESIDE ROAD, NEW MILLS
**CLIENT:** GARETH HARDY
**REF:** CW/6833-SS1
**DATE:** 16 APRIL 2013

**SURVEYED BY:** G THOMAS
CHESHIRE WOODLANDS
**PAGE:** 4

| No. | Species | Age Range | Height (m) | Crown Spread (m) | Stem Dia. (mm) | Vitality | Comments | Management | Visual prominence | Retention Value Existing | Retention Value Proposed | BS5837 RPA Radius (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S4 | Mixed ornamental shrubs | - | 3 | - | - | M-G | • Partially maintained linear shrub bed | • Remove for development | 1 | - | - | - |
| S5 | Mixed ornamental shrubs and conifers | - | ≤3 | - | - | M-G | • Dense linear boundary shrub bed | • Remove for development | 1 | - | - | - |

© Cheshire Woodlands

# Guidance Note - Assessment of Visual Prominence and Assessment of Retention Values

## Visual Prominence Values

Determined by assessment of current and potential visual prominence and taking account of location, tree size, growth potential and useful life expectancy. Visual prominence values are classified as follows:

(0) none, (1) very low up to (5) very high

## Retention Values

Trees or groups of trees are evaluated twice in order to facilitate consideration of their relative merits. Firstly, the trees are assessed and categorised in the context of the pre-development situation to provide a broad valuation of all of their attributes and the contribution to their environs. Secondly, the trees are similarly assessed and categorised in the context of a development proposal. The evaluations consider current or projected:

- life expectancy (broad categorisation)
- visual prominence (current and potential)
- landscape function
- numbers of other trees and their maturity (continuity for landscape, amenity, habitat)
- wildlife habitats (incl. continuity)
- safety
- conflicts with the built environment or other land-use
- cultural, historical or other special value

Groups of trees are assessed and categorised as a single unit.

© Cheshire Woodlands

## Pre-Development Retention Value

Each surveyed tree or group of trees is valued and placed into one of the following categories (A, B, C or U). The valuation considers the benefits and disbenefits of retaining the tree or group of trees in the pre-development context; any specific issues are noted in the tree survey schedule.

(A) Trees the retention of which in the pre-development context is most desirable and that have an estimated remaining life expectancy of at least 40 years (high value category)

Wholly appropriate to the pre-development situation and without significant conflict

(B) Trees the retention of which in the pre-development context is desirable and that have an estimated remaining life expectancy of at least 20 years (moderate value category)

Appropriate to the pre-development situation but not of highest value

(C) Trees that could be retained in the pre-development context and have an estimated remaining life expectancy of at least 10 years (low value category)

Ill-suited to the pre-development situation but could be retained with moderate conflicts

Trees of no particular merit in the pre-development context

(U) Trees unsuitable for retention in the pre-development context

Cannot reasonably be retained within the pre-development situation for longer than 10 years

## Post-Development Retention Value

With reference to a development proposal, each of the trees or groups of trees is placed in one of the following categories (A, B, C or U). The valuation considers the benefits and disbenefits of retaining the tree or group of trees in the context of the development proposal; any specific issues are noted in the tree survey schedule.

(A) Trees the retention of which is most desirable (high value category)

Retention wholly appropriate to the proposed situation and without significant conflict

(B) Trees the retention of which is desirable (moderate category)

Retention appropriate to the proposed situation but not of highest value and/or having only minor conflicts

(C) Trees which could be retained (low value category)

Retention ill-suited to the proposed situation but could be retained with moderate conflicts

Trees of no particular merit in the proposed situation

(U) Trees for removal

Cannot reasonably be retained within the proposed situation

# GLOSSARY OF ARBORICULTURAL TERMS

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

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 a 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

Compartmentalization. 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 fork. An acute angled fork that is mechanically optimised for the growth pressure that two or more adjacent stems exert on each other.

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

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 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. Dead branch wood

Decurrent. In trees, a system of branching in which the crown is borne on a number of major widely-spreading 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

Incorporating extracts from Lonsdale, D. 1999. Principles of Tree Hazard Assessment. Her Majesty's Stationary Office, London

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

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

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)

Fastigiate. Having upright, often clustered branches

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/ripewood. 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 end-loading

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. 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, usually to a point just outside that of the previous cutting. 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 re-pollard 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 BS5837 (2005) Guide for Trees in Relation to Construction.

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

Incorporating extracts from Lonsdale, D. 1999. Principles of Tree Hazard Assessment. Her Majesty's Stationary Office, London

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

Ring-barking (girdling). The removal of a ring of bark and phloem around the circumference of a stem or branch, normally resulting in an inability to transport photosynthetic assimilates below the area of damage. Almost inevitably results in the eventual death of the affected stem or branch above the damage.

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. An area of ground surrounding a tree that contains sufficient rooting volume to ensure the tree's survival. Calculated with reference to Table 2 of BS5837 (2005) and shown in plan form in square metres

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

Silviculture. The practice of controlling the establishment, growth, composition, health, and quality of forests to meet diverse needs and values.

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

Tree Risk Assessment. An assessment and description of the risks and where appropriate the values associated with a tree or trees. The primary risk being considered is that from falling trees. Other risks, such as damage to infrastructure, interruption of service and building subsidence may also be considered.

- Walkover – A general view of the tree population considered in the context of the adjacent land-use to identify trees that present significantly elevated risks
- Drive-by - A general view of the tree population from a moving vehicle and considered in the context of the adjacent land-use to identify trees that present significantly elevated risks
- Individual – the assessment of risks from a single tree considered in the context of the adjacent land-use to identify trees that present significantly elevated risks

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

Vigour. The expression of carbohydrate expenditure to growth (in trees).

Vitality. A measure of physiological condition expressed through the health and growth of foliage, shoots and adaptive woody tissues.

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

Incorporating extracts from Lonsdale, D. 1999. Principles of Tree Hazard Assessment. Her Majesty's Stationary Office, London