Tree Survey and Impact Assessment

for land

west of Norwood Lane,
Meopham,
Kent

Client

Taylor Wimpey South East

September 2025

2426-KC-XX-YTREE-TreeSurvey-and-ImpactAssessment-Rev0

The Studio, Timbers, Gables Road, Church Crookham, Fleet, Hampshire, GU52 6QY
Telephone +44(0)1252 850096 | Email: admin@keenconsultants.co.uk

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CAVEATS

This report has been prepared for planning purposes only. It is not intended for the detailed design of foundations that requires a much finer level of detail to ensure a cost-effective scheme of foundations.

This report considers the health and safety of the trees in their context at the time of survey. Trees are natural organisms subject to change and a range of weather conditions. This report can only be relied on for a period of twelve months or immediately prior to detailed designing of site layout (if phased) to ensure hazards posed by trees can be identified and resolved.

We rely on Council and Government websites for factual information in respect of sites. Experience reveals these are not always reliable. Further checks should be made in advance of undertaking any work to trees.

Keen Consultants accept no responsibility or liability for any use that is made of this document other than by the client for the purpose for which it was commissioned and prepared.

Document history

Revision	Issue Status	Details	Approved/Date
Rev0	Final	Initial combined Tree Survey and Impact Assessment	JK / 10 September 2025

Contents

List of Tables

Appendices

1.0 Introduction

1.1 This report sets out the information about trees to inform the planning process about the quality of trees on site. Following the tree survey the information is extended to consider the impact to them from the proposed development and how construction may proceed whilst ensuring trees are successfully retained.

1.2 In this report we consider the proposals for development of the site. We consider those proposals in relation to the survey of trees we conducted as part of the site analysis. The application proposals are described as:

Outline application with all matters reserved (except access) for a development of up to 150 dwellings (Use Class C3), including affordable dwellings, and associated landscaping, public open space and infrastructure works.

1.3 The area subject of this survey consists of a parcel of arable land situated west of Norwood Lane.

1.4 The site slopes gently, descending in level toward the northern end.

1.5 Along Camer Road is a maintained hedgerow of mixed broadleaf species. It contains a number of larger trees.

1.6 Along Norwood Lane is a partial hedgerow containing a mixture of species. In places it is dominated by elm and the elm are dying, as is typical.

1.7 Along the northern and western boundaries are residential properties. Some trees, notably ornamentals, are located within the rear gardens.

1.8 The southern part of the western boundary has a small block of woodland, known as Churchway Wood, and linear tree belt that extends toward the south.

1.9 The linear tree belt appears to be of planted origin containing a number of English oaks, ash and Corsican pine.

1.10 The small block of woodland consists of an upper canopy of predominantly English oak and ash there is a mid-canopy of predominantly cherry with some field maple. The under storey consists primarily of hazel and holly.

1.11 At the time of the tree survey we checked the online portals, including Gravesham Borough Council for statutory protection of trees applicable to the site. Online portals are not always reliable so before works are undertaken to trees a direct enquiry with the Council should be made.

- TREE PRESERVATION ORDERS - details were not available online, or the online portal could not be searched, to clearly identify if trees upon the site were protected by Tree Preservation Order.
- As such we advise that a direct enquiry to the Council is made to ascertain if trees are protected
- CONSERVATION AREAS - details were available online and confirmed that the site IS NOT within a Conservation Area.
- The MAGIC information portal revealed that Ancient and Semi-Natural Woodland IS NOT listed within/adjacent to the site. Churchway Wood IS listed on the Priority Habitat Inventory - Deciduous Woodland (England)
- The online portal of the Woodland Trust, Ancient Tree Inventory, revealed that there are NO veteran trees recorded on site.

1.12 Nationally adopted guidance has been followed in the preparation of this report. *BS5837:2012: Trees in relation to design, demolition and construction – Recommendations* sets out a structure approach to considering trees during the development process. Guidance is given on the surveying of trees, the protected space that should be allocated to trees, what elements may give rise to harm to trees and what techniques can be deployed to minimise harm.

1.13 Sustainable development requires the coordination between disciplines throughout the project, accordingly the package of arboricultural information supports the design process and follows through to construction ensuring effective tree protection. We recognise the need to integrate with other disciplines to achieve a balanced approach to development proposals.

1.14 We set out how our key elements interact with others at Appendix1 of this report. The appendix provides comprehensive information about the stages of providing tree information within the planning process.

1.15 Further explanatory notes about tree survey information are given in Appendix2.

2.0 Tree survey

2.1 The objective of this tree survey is to assess the significant trees and woody vegetation on the site to obtain dimensions, assess their quality and evaluate their condition to provide sufficient information to enable decisions to be made on planning aspects of the site and its potential development.

2.2 The tree survey:

2.2.1 was conducted on the 20 February 2025 by Jago Keen, MSc, Dip.Arb., MArborA, MICFor from ground level, in accordance with the guidance in British Standard *BS5837:2012 Trees in relation to design, demolition and construction – Recommendations*;

2.2.2 is intended for planning purposes only;

2.2.3 is not intended for the detailed design of foundations (further information upon vegetation can be provided upon request);

2.2.4 is not a detailed health and safety condition survey of trees;

2.2.5 recommends only preliminary works. Tree works required to achieve the scheme of development will be considered as part of the Impact Assessment and detailed on the Tree Protection Plan;

2.2.6 places reliance on the topographical survey.

2.3 Details of each tree are recorded in the Schedule of Trees at Appendix3.

2.4 Site soil investigations have not been conducted. The (online) 'Geology of Britain Viewer' that contains British Geological Survey materials © NERC [2018] reveals the following soil information:

2.4.1 Bedrock geology: Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation

2.4.2 Superficial deposits: None recorded.

2.5 Survey information is used to prepare the constraints posed by trees on development. These constraints are shown on the Tree Constraints Plan. The Plan shows root protection areas prescribed by the guidance within BS5837 paragraph 4.6.2 and adjusted where appropriate as recommended in subsequent paragraph 4.6.3. The root protection area (RPA) is the minimum extent of rooting required to sustain the tree.

2.6 Trees change over time hence the contents of this survey can only be relied upon for a period of up to two years. The survey should be refreshed after two years or immediately prior to the design of detailed site layouts where they are phased.

3.0 Application of survey information

3.1 Trees place constraints on sites but they also provide opportunities in order to achieve optimum use of the site and location of built structures. This is set out below:

Avoid

The starting point of site layout design should be to avoid the RPA. Ideally, structures should be outside the root protection area to provide working space for construction however protection measures can be taken if such clearance, in isolated cases, is not achievable.

Mitigate

Where intrusion within the RPA is unavoidable then its impact on the tree can be mitigated by specialist measures:

a) Foundations that avoid trenching e.g. screw piles, suspended floor slabs or casting at ground level for lightweight structures such as bin and cycle stores.

b) Limited use may be made for parking, drives or hard surfaces within the root protection areas, subject to advice from a qualified arboriculturist. Cellular confinement systems that enable hard surfaces to be built above existing soil levels are acceptable methods.

c) Service runs that cannot be routed outside the root protection area(s) can be installed by, for example, thrust boring, directional drilling, air excavation or hand digging. These operations often require supervision by the project arboriculturist.

Compensate

Replacement planting can ensure the continuity of tree cover where tree removal is unavoidable. Offsite provision may be considered in some circumstances but this will require negotiation with the local planning authority.

4.0 Assessment of impact upon trees

4.1 This assessment will consider the impact upon trees of implementing the proposals shown on the drawings listed below:

Table 1 - List of drawings referred to in the impact assessment

Originator	Drg No	Title
ECE Architecture	7458/PL-03 Rev B	Illustrative Masterplan
Keen Consultants	2426-KC-XX-YTREE-TCP01RevA	Tree Constraints Plan

4.2 Outline site proposals considered in this application include:

4.2.1 Indicative residential parcels

4.2.2 Access, parking and other hard surfaces

4.2.3 Utilities, services and SuDS schemes

4.2.4 New and replacement tree planting

4.3 The proposals are considered with reference to the following guidance documents referred to in this report:

Table 2 - List of documents used to inform the impact assessment

Originator	Title/Reference
British Standards Institute	*BS5837:2012 Trees in relation to design, demolition and construction – Recommendations*
Trees and Design Action Group	*Trees in the townscape: A guide for decision makers*
Ministry of Housing, Communities and Local Government	*National Planning Policy Framework (NPPF)*

4.4 National planning policy (paragraph 136 of the NPPF refers) makes clear the important contribution made by trees to the character and quality of built environments. Trees help to mitigate and adapt to climate change. The application proposals are respectful of the benefits trees provide and have been developed to ensure the retention of trees and the incorporation of new trees within the layout.

4.5 In overview, the proposals seek to retain all significant tree features at the site, provide generous separation from those features, and secures a net gain of tree cover through substantive scheme of new tree planting.

Impact of application proposals

4.6 Access to the site is shown in the south west corner of the site, via Green Lane. Its location coincides with trees 17 and 18. Tree group 17 is a collection of slender cherry trees. Tree 18 is an ash with advanced Ash Dieback. None of these trees are of exceptional merit and are not of sufficient value to warrant retention.

4.7 To achieve visibility splays either side of the proposed access it will be necessary to remove short sections of hedgerow 19. This hedgerow has been maintained at a low height and is sparse in the area of the proposed access. Its loss can be offset by the planting of new hedgerow to the rear of the proposed visibility splays. It can either be planted in the conventional manner, using small transplants or, if a more instant effect is desired, it can be planted as an established hedge section. The latter would be an improvement over the existing hedge from day one.

4.8 To avoid material harm to the retained tree belt west of the proposed access, the footpath leading west has been segregated from the access and is proposed to pass through the southern end of the tree belt to join with the existing footway along Green Lane. By segregating the footway it permits the use of a no-dig form of construction. As the name implies, this enables the hard surface to be constructed without the need for excavation, that would have the potential for root loss. By adopting this method of construction harm to the trees is avoided. The details of this approach can be set out within an Arboricultural Method Statement, secured through a condition appertaining to the consent,.

4.9 The indicated main spine road is located remote from the tree belt on the western boundary and from Churchway Wood. South of Churchway Wood it acts as the edge of the developed area and results in generous separation from the tree belt and woodland. This ensures residential properties, within the indicated residential parcels, are remote from these significant tree features avoiding undue pressure upon the trees in future years.

4.10 That generous separation continues east and north of Churchway Wood where residential parcels are separated from the wood by a 15m wide buffer. This provides distance between the residential areas and offers a harmonious landscape setting for the wood.

4.11 Further pedestrian links are indicated on the Concept Plan.

- A connection is proposed to Green Lane that will require a small break in hedgerow 77. This can be offset by new hedge planting, including infilling gaps in the existing hedge. This will secure the hedgerow feature for future generations.

- A combined pedestrian and cycle link is proposed in the north east corner of the site, linking to Norwood Lane. It will require the removal of a section of hedgerow 69. This end of hedgerow 69 is dominated by elm trees that are dying due to Dutch Elm Disease. The development results in the loss of a section of this poor quality hedge but enables the restoration of the hedge with species other than elm to ensure its contribution to landscape is conserved.

Impact of drainage and services

4.12 At this stage in the planning process, a detailed scheme of drainage and services has not been formed. However, there is ample scope to locate them outside of root protection areas and require no specialist measures for their installation.

4.13 If services do need to be installed within root protection areas then specialist techniques for their installation will be needed. Such specialist techniques include moling, thrust-boring, broken trench or excavation by AirSpade.

4.14 Drainage basins are indicated on the Concept Plan. These are located remote from tree features and result in no impact to them.

5.0 New and replacement tree planting

5.1 The development proposals bring forward opportunity to plant a selection of trees throughout the development. Trees can be integrated within the streets and open spaces as well as bolstering, or conserving, existing features such as the hedgerows.

5.2 Retaining existing trees and introducing new trees ensures a resource of trees in places where residents and visitors alike will enjoy multiple benefits provided by the tree stock. In so doing the tree stock will be able to withstand climate change, protecting and enhancing the resources of soil, air, water, landscape, amenity value, culture and biodiversity, and increasing the contribution that trees make to the quality of life. In that respect the proposals are in line with the very latest guidance, in terms of integrating trees with built form, contained in *Trees in the townscape: A guide for decision makers* produced by the Trees and Design Action Group and the requirement of paragraph 136 of the National Planning Policy Framework.

5.3 Those multiple benefits of this new tree planting, as part of the site's green infrastructure, include contribution to open space, enhancement of sustainable drainage systems, and enhancement of biodiversity. In addition, as those new trees develop, so they will further contribute to local climatic regulation and, where they stand within the sun path of proposed buildings or surfaces within the development, they will minimise solar gain during summer months, and provide an accessible choice of shade and shelter.

6.0 Protection of trees during construction

6.1 To ensure the retained trees are safeguarded a condition can be imposed on the outline consent requiring the preparation of an Arboricultural Method Statement and Tree Protection Plan to be agreed by the local planning authority. Those measures can then be put in place for the duration of the construction period.

7.0 Summary of impact assessment

7.1 The proposed development results in the loss of very few trees, all of which are low quality and value.

7.2 Short sections of hedgerow are indicated for removal but these can be offset by replacement planting, either planted traditionally as saplings or by planting instant hedge.

7.3 In places, indicated routes of hard surfaces coincide with root protection areas but specialist measures can be deployed to minimise harm to trees

7.4 Services and utility installation can be sited remote from trees but if they do need to be located within root protection areas specialist measures can be deployed for their installation to minimise harm to retained trees.

7.5 New and replacement tree planting can be provided as part of these development proposals. This new cohort of trees can provide a diverse portfolio of tree cover to ensure sustainability of green infrastructure in the future.

7.6 Protection of trees can be secured through the provision of an Arboricultural Method Statement and Tree Protection Plan. These can be secured by condition appertaining to consent.

7.7 The application proposals recognise the important contribution trees make to the character and quality of built environments, and the role they play to help mitigate and adapt to climate change. The proposals seek to retain existing trees and integrate new trees in accordance with the requirement of local and national planning policy.

Appendix 1

Introduction to key elements of tree information

Sustainable development requires the coordination between disciplines throughout the project, accordingly the package of arboricultural information supports the design process and follows through to construction ensuring effective tree protection.

Keen Consultants break the process down to coordinate with the key elements within both the RIBA Plan of Work (2020) and '*British Standard 5837:2012 Trees in relation to design, demolition and construction – Recommendations*', this is set out in the table and explained below.

Figure 1 - Keen Consultants co-ordinated approach with cross references to key guidance.

Keen Consultants Tree Information	RIBA Stage	BS5837
Tree Survey	Stage 1: Preparation and Briefing	Feasibility
Impact Assessment	Stage 3: Spatial Coordination	Proposals
Method Statement	Stage 4: Technical design	Technical Design
Site Monitoring	Stage 5: Manufacturing and Construction	Demolition and construction

This cross referenced approach ensures trees are a material consideration and those to be retained will be safeguarded.

Tree Survey and Tree Constraints Plan

To inform the design and layout of the proposed development a tree survey has been undertaken to identify the size and quality of trees both within the site and immediately offsite. We have then used this information to prepare the Tree Constraints Plan drawing that shows the location of each tree, its size and the area around each tree that needs to be considered during the design process. Once prepared this information has been provided to the design team so that they know what constraints the trees pose.

Impact Assessment and Tree Protection Plan

During the design process the design team has consulted with the arboriculturist to ascertain if constraints may be breached, consider options emerging from the design and what spaces for new trees are needed.

Once the design was finalised an impact assessment has been prepared to accompany the planning application. The impact assessment demonstrates the proposals meet national and local planning policy and guidance. It demonstrates the benefits of the retained trees and incorporates new tree planting.

Another essential element of any application is the Tree Protection Plan.

Method Statement

This statement sets out in words how each element of work is undertaken in relation to the trees. It dictates when activities occur and the method that will be used to achieve them. It will also set out a scheme of monitoring and supervision.

Site Monitoring

Following the receipt of planning consent, it is a requirement that the installation of the protective barriers and ground protection are supervised, together with operations such as excavations or surfacing close to trees.

This varies according to the intensity of development near trees, the process is set out to ensure what is planned for in the Tree Protection Plan and method statement is delivered.

Appendix 2

Tree Survey Explanatory Notes

The survey of trees has been carried out in accordance with the criteria set out in Chapter 4 of *British Standard 5837:2012 Trees in relation to design, demolition and construction-Recommendations* (BS5837). The survey has been undertaken by the qualified and experienced arboriculturist detailed at Table 1 of this report and they recorded information relating to all those trees within the site and those immediately adjacent to the site which may be of influence to layout design.

The results are recorded in the Schedule of Trees at Appendix 3.

Schedule of trees

Appendix 3 presents details of the individual trees, groups and hedgerows including heights, diameters at breast height, crown spread (given as a radial measurement of cardinal points from the stem), age class, comments as to the overall condition at the time of inspection, BS5837 category of quality and suitability for retention, and the root protection area information.

General observations particularly of structural and physiological condition for example the presence of any decay and physical defect and preliminary management recommendations have also been recorded where appropriate.

Details of the individual trees, groups and hedgerows

All trees were assessed for their quality and benefits within the context of proposed development in a transparent, understandable and systematic way.

Individuals

The default position is to record each tree as an individual for its unique contribution to the landscape

Groups and woodlands

Trees have been assessed as groups where it has been determined appropriate by the surveyor. The term group has been applied where trees form cohesive arboricultural features either aerodynamically, visually or culturally.

Hedges and shrub masses

We consider a hedgerow to typically comprise a line of trees or shrubs that currently is subject to, or has undergone, a pruning regime to contain its dimensions.

For the tree survey hedgerows and substantial internal or boundary hedges (including evergreen screens) have either been recorded in the Tree Schedule, including lateral spread, height and stem diameter(s), or indicated on the Tree Constraints Plan.

A tree survey in accordance with BS5837 does not assess hedgerows against *The Hedgerow Regulations 1997* or specifically from an ecological perspective, as such would be outside the scope of the British Standard assessment.

Shrub masses are collectives of woody plants, rather than trees, and are recorded where they are a significant feature of the site. They have either been recorded in the Tree Schedule or indicated on the Tree Constraints Plan.

Individual trees within groups, woodlands and hedges

An assessment of individual trees within the groups has been made where there has been a clear need to differentiate between them for example, in order to highlight significant variation between attributes including physiological or structural condition or where a potential conflict may arise.

BS5837 Categorisation

Trees have been divided into one of four categories based on Table 1 of BS5837, 'Cascade chart for tree quality assessment'. For a tree to qualify under any given category it should fall within the scope of that category's definition (see below).

Category U trees are those which would be lost in the short term for reasons connected with their physiology or structural condition. They are, for this reason not considered in the planning process on arboricultural grounds. Categories A, B & C are applied to trees that should be of material considerations in the development process. Each category also having one of three further sub-categories (i, ii, iii) which are intended to reflect arboricultural, landscape and cultural or conservation values accordingly.

Please note that the estimated remaining life expectancy figures are taken for BS5837 and relate to their categorisation. The life expectancy figures are therefore arbitrary and may vary in reality.

Category (U)

Trees that have a serious irremediable structural defect such that their early loss is expected due to collapse and includes trees that will become unviable after removal of other category U trees.

Trees that are dead or are showing signs of significant, immediate or irreversible overall decline.

Trees that are infected with pathogens of significance to the health and/ or safety of other nearby trees or are very low quality trees suppressing adjacent trees of better quality.

Certain category U trees can have existing or potential conservation value which may make it desirable to preserve.

Category (A)

Shown green on Tree Constraints Plan: Trees that are considered for retention and are of high quality with an estimated remaining life expectancy of at least 40 years and with potential to make a lasting contribution. Such trees may comprise:

Sub categories

1) trees that are particularly good examples of their species, especially if rare or unusual, or are essential components of groups such as formal or semi-formal arboricultural features for example the dominant and/or principal trees within an avenue.

2) trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features.

3) trees, groups or woodlands of significant conservation, historical, commemorative or other value for example veteran or wood pasture.

Category (B)

Shown blue on Tree Constraints Plan: Trees that are considered for retention and are of moderate quality with an estimated remaining life expectancy of at least 20 years and with potential to make a significant contribution. Such trees may comprise:

Sub categories

1) trees that might be included in category A but are downgraded because of impaired condition for example the presence of significant though remediable defects, including unsympathetic past management and storm damage.
2) 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.
3) trees with material conservation or other cultural value.

Category (C)

Shown grey on Tree Constraints Plan: Trees that are considered for retention and are of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm. Such trees may comprise:

Sub categories

1) unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.
2) trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value or trees offering low or only temporary/transient screening benefits.
3) trees with no material conservation or other cultural value.

Devising BS5837 root protection areas

Default situation

The root protection area is a function of the stem diameter, it is multiplied by 12 to give a radius. For multi-stemmed trees the stems are combined to provide an effective diameter figure which is then multiplied.

Initially the root protection area should be plotted as a circle, and in many situation it remains a circle.

Influenced situation

Adjustments to the root protection area are made where pre-existing site conditions that would influence root distribution are present. Typically this will be buildings and retaining walls, lighter structures such as hard surfacing, sheds and garages generally do not have the same influence.

Ponds, rivers and watercourses will also influence root distribution as waterlogged soils are not conducive to root growth. Rainwater attenuation and ditches are likely to have a lesser impact if they are dry for significant periods.

Veteran trees

Natural England have introduced Standing Guidance that requires the allocation of buffer zones to veteran (including ancient) trees. They have prescribed that a buffer zone of 15 times the stem diameter of the tree is allocated. This will result in a buffer zone of larger size (Natural England do not specify what shape it shall be) than the root protection area. Where veteran trees are identified during the tree survey they are allocated a Natural England buffer zone on the Tree Constraints Plan.

The Guidance says no development can take place within the buffer zone It is silent on what can and cannot be done when the land within the buffer zone is previously developed. The spirit of the guidance is to avoid harm to or improve the growing conditions of veteran trees.

With this added layer of protection it is important to establish if a tree is veteran or not. The Guidance was not intended to be applied to all mature trees but to the sub-set of trees that are of great age. This is analogous with the NPPF requirement to safeguard trees that have attained an age where they are worthy of veteran or ancient status.

It is therefore important to establish a basis for defining trees as veteran as opposed to those trees that may have veteran characteristics or those trees that are mature.

Stem size is a useful guide and, in combination with size, so are characteristics of the tree. If we consider the guidance on stem size being a suitable guide to classifying trees as veteran we see:

a) The most up to date (2013) guidance is that in [1]*Ancient and other veteran trees: further guidance on management* edited by David Lonsdale and published by The Tree Council in conjunction with The Ancient Tree Forum. Lonsdale considers that many trees may have veteran characteristics at any age however proposes, at a species level, size thresholds when a tree may be considered a veteran. A chart (see Figure 1 below) lists, species by species, the size criteria for trees reaching veteran status and then moving on to the later, ancient stage of life. Of those species listed in the chart we only need consider oak. We see that until trees attain a stem girth of around 3.6m (equivalent stem diameter of 1.15m) then an oak is only considered to be 'Locally notable'

b) A somewhat older (1999) publication, [2]*Veteran Trees: A guide to good management* edited by Helen Read and published by English Nature et al, is very similar in its definition by setting out three distinct bands for oak trees:

   i) those with a diameter of more than 1.0m are potentially interesting

   ii) those with a diameter of more than 1.5m are valuable in terms of conservation

   iii) those over 2.0m in diameter are truly ancient

c) English Nature's own [3]*Development of a veteran tree site assessment protocol (Report Number 628)* of 2005 sought to give more structure to grading sites where veteran trees were present. It considered that trees over 1.0m diameter could be classed as veteran.

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[1] *Ancient and other veteran trees: further guidance on management* edited by David Lonsdale and published by The Tree Council in conjunction with The Ancient Tree Forum

[2] *Veteran Trees: A guide to good management* edited by Helen Read and published by English Nature *et al*

[3] *Development of a veteran tree site assessment protocol* (Report Number 628) of 2005

In summary, a tree may enter its veteran stage at 1.0m diameter but a more reliable size threshold, as held out by the latest guidance on the matter, is 1.5m diameter.

The other factor, tree characteristics, is also worth considering as veteran tree characteristics can be found on even young trees. Of course, if we count every tree with veteran tree characteristics as veteran we do a disservice to those truly veteran trees that warrant protection.

Read (1999), as set out above, considers veteran tree characteristics as:

- large girth for species
- major trunk cavities or progressive hollowing
- naturally forming water pools
- decay hollows
- physical damage to trunk
- bark loss
- large quantities of deadwood within the crown
- sap runs
- crevices in the bark, under branches or on the root plate sheltered from direct rainfall
- fungal fruiting bodies
- high number of interdependent wildlife species
- epiphytic plants
- an 'old' look
- high aesthetic interest

Lonsdale (2013) adds to this list:

- progressive narrowing of successive annual increments in the stem
- changes in crown architecture
- progressive or episodic reduction in post-mature crown size, often known as retrenchment

Lonsdale also states that "In order to qualify as a veteran, the tree should show signs of crown retrenchment and signs of decay in the trunk, branches or roots, such as exposed deadwood or fungal fruit bodies".

The English Nature Report Number 628 refers to Read (1999) for a list of veteran features but does add that in addition a tree may also:

- have a pollard form or show indications of past management
- have a cultural/historic value
- be in a prominent position in the landscape

These three criteria, when examined, are not truly indicative of a veteran tree on their own as these criteria could be applied to street trees in peri-urban locations that date from the mid-20th century - many of those are of pollard form, have cultural and historic value and a prominent position in the landscape.

In summary, it is important to consider the size of the tree and its characteristics. Just because a tree is mature does not mean it is veteran neither does the presence of veteran characteristics alone.

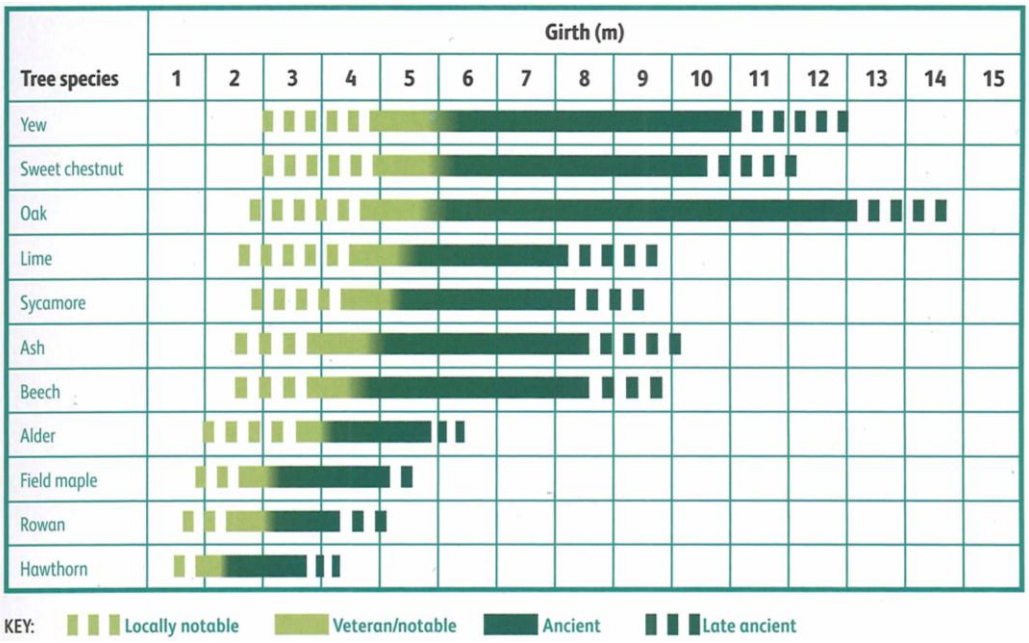

Figure 1- Chart of girth in relation to age and developmental classification of trees

Appendix 3

Schedule of Trees

for land at

west of Norwood Lane,
Meopham,
Kent

Key to Tree Schedule

Column Heading	Explanation
Tree No.	Unique number corresponding with number on plan
Species	English names
Ht (m)	Height in metres
Branch Spread	Crown radius in metres to cardinal points of the compass
Stem diameters (cm)	All measurements conform to Annex C of BS 5837:2012 Single stem - Stem diameter in centimetres measured at 1.5m above ground level. Multi-stemmed tree with 2 to 5 stems – Diameter of each stem Multi-stemmed tree with more than 5 stems – Average stem diameter and number of stems
Height of crown clearance	Height in metres between the ground and underside of canopy
Height of first major branch and direction of growth	Height from ground level to base of first major branch and the approximate direction of growth
Abbreviations as suffix to a dimension	*Suffix 'e' denotes an estimated dimension.* *Suffix 'av' denotes an average dimension*
Age class	Age Class definitions: Y = Young S = Semi-mature E = Early mature M = Mature O = Over mature
Category grading (see Appendix A2 for detailed explanation) and Estimated remaining contribution (yrs)	Summary of BS 5837: 2012 categorisation: 1. Trees that do not warrant consideration for retention: U = those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management. 2. Trees to be considered for retention: A1, 2 or 3 = trees of high quality and value (substantial contribution >40 yrs) B1, 2 or 3 = trees of moderate quality and value (significant Contribution >20 yrs) C1, 2 or 3 = trees of low quality and value (but adequate, ie >10 yrs or young trees – until new planting can be established)
Estimated remaining contribution	Useful estimated remaining contribution of the tree or tree group
Condition	Brief description including physiological and structural defects
Preliminary management recommendations	Describes current arboricultural requirement for the tree in its current context and should be undertaken as soon as reasonably practicable.
Root protection radius	Radius of minimum root protection area in metres calculated from section 4.6 and Annex D of BS5837:2012
Root protection area	Total area of minimum root protection area extrapolated from root protection radius

Schedule of trees on land at Norwood Lane, Meopham, Kent

Tree No.	Species	Ht (m)	Branch Spread (m)				Stem diameters (cm)								Height of crown clearance (m)	Height of first branch (m) and direction (compass point)	Age class	Category grading	Estimated remaining contribution (yrs)	Condition Physiological / Structural	Preliminary management recommendations	Root protection radius (m)	Root protection area sq.m
			N	E	S	W	Single Stem	2-5 stems					More than 5 stems										
								Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems									
1	Horse chestnut	15	6	7	9	9	71								5	5S	E	B2	>20	Prominent tree growing at edge of road. Lower stem covered in ivy. Nearby tree of similar size.		8.52	228
2	Mixed broadleaf tree belt	15av	6av				45av								7	7N	E	B2	>20	Narrow band of trees to southern edge of Camer Road. Predominantly holly and English oak with some ash. Further south is a linear collection of larger sweet chestnuts.		5.40	92
3	Sweet chestnut	14	7	7	5	6	91								4	4N	E	A2	>40	One of a pair of trees growing in verge between path and Camer Road.		10.92	375
4	Sweet chestnut	17	4	8	7	6	82								4	4S	E	A2	>40	One of a pair of trees growing in verge between path and Camer Road.		9.84	304
5	Ash	18	7	7	6	8	75e								4	4S	E	U	<10	Extensive decay in mid stem. Advanced Ash Dieback. Lower stem smothered in dead ivy. Growing adjoining entrance to south of Camer Road. Unsuited to long term retention.		9.00	255
6	English oak	17	9	5	7	8	75e								4	4S	E	B2	>20	Prominent tree growing in lawn adjoining entrance south of Camer Road.		9.00	255
7	Mixed broadleaf tree belt	13av	4av				35av								0	-	S	B2	>20	Broad belt of vegetation to south of Camer Road. Mixed species including English oak, ash, field maple, holly and hazel.		4.20	55
8	Eucalyptus	17	9	7	9	9	65e								6	6S	S	C2	>10	Established tree growing in adjoining garden.		7.80	191
9	Pair of Leyland cypress	15av	7av				50av								2	2S	E	C2	>10	Pair of outgrown conifers growing in adjoining garden.		6.00	113
10	Lawson cypress	10	2	2	2	2	20e								0	-	Y	C2	>10	Established conifer growing in adjoining garden.		2.40	18
11	English oak	15	5	4	7	9	70e								3	3S	E	B2	>20	Stands at edge of road. Northern crown development compromised. Smothered in ivy.		8.40	222

Schedule of trees on land at Norwood Lane, Meopham, Kent

Tree No.	Species	Ht (m)	Branch Spread (m)				Stem diameters (cm)								Height of crown clearance (m)	Height of first branch (m) and direction (compass point)	Age class	Category grading	Estimated remaining contribution (yrs)	Condition Physiological / Structural	Preliminary management recommendations	Root protection radius (m)	Root protection area sq.m
			N	E	S	W	Single Stem	2-5 stems					More than 5 stems										
								Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems									
12	English oak	16	7	4	7	6	65e								4	4S	E	B2	>20	Stands at edge of road. Northern crown development compromised. Smothered in ivy.		7.80	191
13	English oak	16	4	2	3	2	70e								15	15N	E	U	<10	Advanced dieback. Unsuited to retention adjoining the highway.	Remove.	8.40	222
14	Sycamore	15	4	5	7	3	40e								4	4SE	S	C2	>10	Stands at edge of road. Ivy smothered stem.		4.80	72
15	Ash	17	4	6	6	5	55e								4	4SE	E	U	<10	Advanced Ash Dieback. Mainstem smothered in ivy. Unsuited to retention adjoining the highway.	Remove.	6.60	137
16	Ash	16	6	7	8	7	65								7	7S	S	C2	>10	Stands adjacent to highway. Main stem smothered in ivy. Advanced Ash Dieback. Unsuited to long term retention adjoining the highway.		7.80	191
17	Group of cherry	15av	6av				40av								2	2N	S	C2	>10	Collection of slender stems all covered in ivy.		4.80	72
18	Ash	15	3	7	6	3	35e								2	2E	S	C2	>10	Stands amidst a group of cherry. Smothered in ivy. Showing signs of advanced Ash Dieback.		4.20	55
19	Hawthorn hedge	1.2av	1av				10av								0	-	E	B2	>20	Established hedgerow along edge of Camer Road. Dimensions maintained.		1.20	5
20	Ash	17	7	9	8	5		55e	40e						4	4E	E	U	<10	Poor fork formation at base highly susceptible to failure. Advanced Ash Dieback. Stem smothered in ivy. Unsuited to long term retention.		8.16	209
21	Mixed broadleaf tree belt	<18	<9				<75								0	-	E	A2	>40	Prominent belt of trees along western edge of site. Species include English oak, ash and Corsican pine. Understorey of holly and hazel.		9.00	255
22	Corsican pine	17	6	5	6	7	70e								14	14W	E	U	<10	Advanced dieback. Unsuited to long term retention.		8.40	222
23	Ash	18	7	8	11	11		65e	65e	65e					10	10W	E	U	<10	Advanced Ash Dieback. Mainstem smothered in ivy. Stems lean acutely over gardens. Unsuited to long term retention.	Remove.	13.51	573

Schedule of trees on land at Norwood Lane, Meopham, Kent

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			N	E	S	W	Single Stem	2-5 stems					More than 5 stems											
								Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems										
24	Corsican pine	17	5	7	7	8	70e								11	11E	E	A2	>40	Larger component of woodland belt. Main stem covered in ivy.		8.40	222
25	Pair of English oak	17av	8av				70av								2	2E	E	A2	>40	Stands at eastern edge of tree belt. Both stems smothered in ivy.		8.40	222
26	English oak	11	5	6	5	2	50e								3	3E	S	B2	>20	Stands at northern edge of tree belt. Smothered in ivy.		6.00	113
27	Corsican pine	10	1	3	1	0	35e								7	7E	S	C2	>10	Stands at northern edge of tree belt. Smothered in ivy.		4.20	55
28	Corsican pine	14	2	2	2	2	45e								10	10W	S	B2	>20	Stands at northern edge of tree belt. Main stem smothered in ivy.		5.40	92
29	English oak	13	5	6	6	3	45e								2	2E	S	B2	>20	Stands at northern edge of tree group.		5.40	92
30	Corsican pine	14	2	2	2	2	40e								6	6S	S	B2	>20	Stands at northern edge of tree belt. Lower stem smothered in ivy.		4.80	72
31	Mixed tree belt	9av	4av				15av								0	-	S	C2	>10	Collection of small trees at western edge of field. Species include cherry, ash, holly and yew. Some buddleia.		1.80	10
32	Yew	10	7	7	7	7	45e								0	-	S	B2	>20	Established tree growing amidst dense vegetation. Stems covered in ivy.		5.40	92
33	Row of cypress	14av	6av				45av								0	-	E	C2	>10	Row of outgrown conifers growing in adjoining property. Predominantly Lawson cypress with occasional Leyland cypress.		5.40	92
34	Ash	16	7	9	7	9		50e	25e	25e	35e				3	3S	E	C2	>10	Stands at edge of woodland. Multi stemmed but all stems partially covered in ivy. Advanced Ash Dieback. Unsuited to long term retention.		8.46	225
35	Mixed broadleaf hedgerow	8av	4av				20av								0	-	E	B2	>20	Established hedgerow at edge of woodland block. Mixed species including hazel, hawthorn. Holly and field maple.		2.40	18
36	Field maple	15	7	6	6	6	51								1.2	1.2E	M	A1	>40	Larger component of woodland. Large example of species.		6.12	118
37	Field maple	8	0	5	4	5							20	6	0	-	S	B2	>20	Contributes to hedge line at edge of wood.		5.88	109

Schedule of trees on land at Norwood Lane, Meopham, Kent

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			N	E	S	W	Single Stem	2-5 stems					More than 5 stems										
								Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems									
38	Ash	15	8	6	7	8							20	7	4	4S	E	U	<10	Advanced ash Dieback. Stems are beginning to fail. Would benefit from coppicing to promote regeneration if possible.		6.35	127
39	Ash	15	9	6	5	6	40e								7	7S	E	C2	>10	Advanced Ash Dieback. Twin stemmed from ground level. One stem has been removed in recent times. Both stems partially smothered in ivy.		4.80	72
40	Field maple	14	7	6	6	7	60e								2	2N	E	B2	>20	Larger example of species growing at edge of wood. Smothered in ivy.		7.20	163
41	English oak	16	6	8	8	3	61								4	4N	E	B2	>20	Stands at edge of woodland block. Crown biased to east.		7.32	168
42	Group of English oak	18av	9av				70av								0	-	E	A2	>40	Prominent cluster of larger trees toward eastern edge of wood.		8.40	222
43	Ash	16	8	7	5	6		45e	45e						2	2N	E	C2	>10	Contributes to woodland but showing advanced Ash Dieback. Lower stems covered in ivy.		7.64	183
44	Cherry	7	3	1	1	3	25e								3	3N	Y	C2	>10	Smaller tree growing at edge of wood. Smothered in ivy.		3.00	28
45	Ash	16	9	6	7	7	90e								2	2SE	E	U	<10	Advanced Ash Dieback. Prolific areas of dead bark on lower stem. Several collapsed stems lodged within crown and adjoining trees.		10.80	366
46	Field maple	11	6	5	4	5	30e								2	2N	S	B2	>20	Contributes to woodland group. Main stem covered in ivy.		3.60	41
47	Leyland cypress hedge	12av	3av				30av								0	-	S	C2	>10	Row of outgrown conifers in adjoining garden.		3.60	41

Schedule of trees on land at Norwood Lane, Meopham, Kent

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			N	E	S	W	Single Stem	2-5 stems				More than 5 stems											
								Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems									
48	Mixed broadleaf woodland	<18	<9				<75								0	-	E	A2	>40	Small pocket of woodland at western edge of site. Upper canopy consists primarily of ash and English oak. The ash are showing signs of Ash Dieback. Mid-canopy predominantly cherry. Understorey of predominantly of hazel with some hollow and field maple. Woodland floor dominated by bramble patches of bluebell that appear to be both the English and Spanish varieties.		9.00	255
49	Ash	5	3	3	3	3		20e	20e						2	2N	Y	C1	>10	Small tree growing at edge of field.		3.39	36
50	Blackthorn	9	6	6	3	7		14	29	36					2	2N	S	C2	>10	Small tree growing at edge of field.		5.80	106
51	Field maple	6	2	2	2	2	30e								1	1N	Y	C1	>10	Small tree growing at edge of field.		3.60	41
52	Mixed broadleaf hedge	1.2av	1av				10av								0	-	Y	C2	>10	Small hedgerow at edge of field. Predominantly field maple and hazel with some hawthorn and blackthorn.		1.20	5
53	Field maple	5	3	3	3	3	20e								0	-	Y	C1	>10	Small tree growing at edge of field.		2.40	18
54	Field maple	4	2	2	2	2	40e								2	2E	E	C1	>10	Small tree growing in adjoining garden.		4.80	72
55	English oak	6	3	3	3	3	30e								2	2E	S	C1	>10	Small tree growing within hedgerow. Pruned on a regular basis.		3.60	41
56	Group of field maple	14av	7av				45av								3	3E	E	B2	>20	Group of trees in adjoining garden.		5.40	92
57	Leyland cypress hedgerow	3av	1av				10av								0	-	Y	C2	>10	Established hedgerow at edge of garden.		1.20	5
58	Group of field maple	10av	6av				45av								2	2E	E	B2	>20	Established trees growing in adjoining garden.		5.40	92
59	Group of field maple and hawthorn.	10av	4av				25av								2	2N	S	B2	>20	Group of trees in adjoining garden.		3.00	28
60	Norway spruce	10	3	3	3	3	30e								1	1E	Y	C1	>10	Small tree growing in adjoining garden.		3.60	41
61	Pair of silver birch	11av	3av				35av								3	3E	S	C2	>10	Group of harshly pruned trees in adjoining garden.		4.20	55

Schedule of trees on land at Norwood Lane, Meopham, Kent

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			N	E	S	W	Single Stem	2-5 stems				More than 5 stems											
								Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems									
62	Group of hawthorn	6av	3av				20av								0	-	S	B2	>20	Group of trees in adjoining garden.		2.40	18
63	Group of conifers	10av	3av				30av								2	2S	S	C2	>10	Group of conifers in adjoining garden. Includes Lawson cypress and cryptomeria.		3.60	41
64	Beech	8	5	6	5	5	45e								2	2S	S	C1	>10	Small tree in adjoining garden. Pruned on a regular basis.		5.40	92
65	Group of field maple	10av	5av				35av								0	-	S	B2	>20	Group of trees in adjoining garden.		4.20	55
66	Norway spruce	7	2	1	2	2	15e								2	2N	Y	C1	>10	Small conifer growing in adjoining garden.		1.80	10
67	Lawson cypress	9	2	2	2	2	25e								1	1N	Y	C1	>10	Small tree growing in adjoining garden.		3.00	28
68	Ash	14	7	7	6	6	65e								2	2N	S	C1	>10	Established tree growing in adjoining garden. Lower stem smothered in ivy.		7.80	191
69	Mixed broadleaf hedgerow	6av	2av				15av								0	-	E	C2	>10	Established hedgerow that consists primarily of elm and therefore likely to die out in future years. Some stems either dead or dying. Would benefit from being restocked with longer lived species. Includes occasional field maple and hawthorn.		1.80	10
70	Mixed broadleaf hedgerow	5av	2av				10av								0	-	E	B2	>20	Established but outgrown hedgerow along Norwood Lane. Mixed species including field maple, blackthorn, hazel, hawthorn, elder and elm. Elm are dying and some dead stems are present.		1.20	5
71	Ash	10	5	7	6	5		29	26	24	19				3	3E	S	C1	>10	Larger component of hedgerow.		5.94	111
72	Field maple	9	3	3	3	3	30e								2	2S	S	B2	>20	Larger component of hedgerow.		3.60	41
73	Group of holly	4av	2av				10av								0	-	S	B2	>20	Larger component of hedgerow.		1.20	5
74	Mixed broadleaf hedgerow	1.5av	1av				10av								0	-	E	C2	>10	Established and maintained section of hedgerow. Predominantly elm and so likely to die out in the future years.		1.20	5

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			N	E	S	W	Single Stem	2-5 stems						More than 5 stems										
								Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems										
75	Mixed broadleaf hedgerow	8av	3av				15av									0	-	E	B2	>20	Established but outgrown section of hedgerow. Mixed species including field maple, holly, hawthorn and elm. Elm dying and likely to continue dying in future years.		1.80	10
76	Mixed broadleaf hedgerow	7av	2av				20av									0	-	E	C2	>10	Fragment of hedgerow that remains against Norwood Lane. Species include holly, hawthorn, elder and elm.		2.40	18
77	Mixed broadleaf hedgerow	1.5av	1av				10av									0	-	E	B2	>20	Established and maintained hedgerow along Camer Road. Predominantly elm with some holly, hawthorn and field maple.		1.20	5
78	Ash	9	3	2	2	3	35e									2	2N	Y	C1	>10	Small tree growing within hedgerow. Showing early signs of Ash Dieback.		4.20	55
79	Leyland cypress hedge	7av	3av				30av									0	-	S	C2	>10	Established hedgerow to southeast of Camer Road. Has been reduced in height in recent times.		3.60	41
80	Group of beech	15av	9av				50av									0	-	S	B2	>20	Cluster of trees at junction of Camer Park Road.		6.00	113
81	Mixed broadleaf tree belt	10av	4av				25av									0	-	S	B2	>20	Established band of trees to south of Camer Road. Mixed species including elm, holly, hawthorn and ash.		3.00	28
82	Field maple	15	9	7	6	8	75e									6	6N	M	A2	>40	Stands at edge of woodland to south of Camer Road. Large example of species.		9.00	255
83	Group of cherry and ash	14av	6av				30av									0	-	S	C2	>10	Collection of etiolated stems growing just to north of hedgerow. Includes occasional field maple.		3.60	41
84	English oak	18	10	9	9	9	85e									10	10N	E	A2	>40	Stands at northern end of woodland belt and south of Camer Road.		10.20	327
85	English oak	17	10	9	9	10	95e									2	2N	E	A1	>40	Prominent tree growing within hedge. Main stem and much of crown smothered in ivy.		11.40	408