

# Tree Survey and Impact Assessment

*for land at  
East Claydon Greener Grid Park*

Client  
Statkraft UK Ltd

April 2025

**2291-KC-XX-YTREE-TreeSurvey-and-ImpactAssessment-RevA**

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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
RevO	Final	Combined Tree Survey and Impact Assessment	JK / 04 April 2025
RevA	Final	Updated Impact Assessment	JK / 23 April 2025

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## **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.
- 1.3 The area subject of this survey consists of a broad expanse of agricultural land situated north of East Claydon Road, East Claydon.
- 1.4 The site is bounded on all sides by further agricultural land other than a cottage and sub-station that lie to the south of East Claydon Road.
- 1.5 The site is bisected broadly north-south by a former railway line. Along the former railway line is a broad band of trees, some of which have been planted.
- 1.6 East of the railway line the fields are pasture and these lead down to a small river at the eastern boundary. These fields are bisected by hedgerows of varying quality. The hedgerows contain some larger trees, notably ash and English oak.
- 1.7 West of the old railway line the fields are in arable production and again are divided by hedgerows containing ash and English oak.
- 1.8 The roadside boundary is also defined by hedgerow that contains predominantly ash with some oak.
- 1.9 Outside the northern boundary of the site is a small parcel of mixed broadleaf woodland.

- 1.10 At the time of the tree survey we checked the online portals, including Buckinghamshire 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 available online and showed that there are NO Tree Preservation Orders protecting trees upon the site.
  - **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 located within/adjacent to the site. Land adjoining the northern boundary of the site 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. On site investigations revealed one tree, remote from the proposals, that qualifies as a veteran tree.
- 1.11 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.
- 1.12 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.
- 1.13 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.
- 1.14 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 25 April 2024 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: West Walton Formation - Mudstone

2.4.2 Superficial deposits: Till, Mid Pleistocene - Diamicton.

- 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
Statkraft UK Ltd	STA008-PL-04B Rev 05	Proposed Block Layout Plan (Operational)
Statkraft UK Ltd	STA008-PL-04A Rev 05	Proposed Block Layout Plan (Construction)
Keen Consultants	2291-KC-XX-YTREE-TCP01Rev0	Tree Constraints Plan
Keen Consultants	2291-KC-XX-YTREE-TPP01RevB	Tree Protection Plan

- 4.2 Site proposals considered in this application are as set out in the description of development thus:

*Construction of a Greener Grid Park comprising energy storage and grid balancing equipment and associated infrastructure including access, drainage, landscaping and other incidental works.*

- 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	<i>BS5837:2012 Trees in relation to design, demolition and construction – Recommendations</i>
Trees and Design Action Group	<i>Trees in the townscape: A guide for decision makers</i>
Ministry of Housing, Communities and Local Government	<i>National Planning Policy Framework (NPPF) December 2024</i>



- 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 summary, the proposals seek to retain the majority of trees and hedges on the site and can be achieved without material harm to the retained trees. Extensive new tree and hedge planting is proposed to deliver a net gain of tree cover as a result of the proposals.

#### *Impact of application proposals*

- 4.6 The scheme has been designed mindful of the presence of trees and hedges. It has therefore sought to minimise impact to them whilst retaining space for extensive new tree planting.
- 4.7 Tree or hedge loss is minimal. The following impacts arise from the scheme:
- Breaks in hedges 67, 82 and 89 are necessary to permit the passage of the temporary construction access. The loss of hedgerow, given the overall length of hedgerow on site, are minor and can be dealt with by replanting once the temporary access is removed. Breaks in hedgerows are a commonplace situation in the agricultural landscape and these temporary breaks do not materially detract from the benefits those hedges provide.
  - Access tracks linking the eastern and western battery storage areas require the loss of a short section of tree belt 22. Including trees 36 and 37, and a section of hedge 11. These line the former railway line that passes between the two battery storage areas. The impact is minimal and does not materially detract from the tree-lined track that runs from East Claydon Road in the south to the site boundary to the north.
  - The layout of the eastern battery storage area is such that it requires the loss of most of hedge 56. Browsing of this hedgerow, by livestock, has removed much of the lower vegetation, leading to a bottomless hedge with limited benefits. Replacement of the hedge with a new diverse native hedge will offset the loss and result in a better long-term contribution to the hedgerow network than the existing.
  - Access to the compound area requires the loss of two stems from number 26, 29, 30 and a short section of hedgerow 11.

- 4.8 The temporary construction access is served from East Claydon Road. Whilst it requires the loss of a short section of hedge (as set out above) it is remote from the significant trees within the hedgeline. The section of hedge lost for the temporary access can be replaced once the access is no longer required. Visibility splays attributable to the access can be achieved without further hedge loss.
  
- 4.9 The permanent operational access makes use of the existing track along the former railway line. It is contained within the footprint of the existing track and therefore avoids any impact to the trees that line the track. Two passing bays are proposed along the eastern side of the maintenance access. They require the loss of stems from the belt of trees that runs alongside the track. That loss is barely perceptible against the backdrop of the retained tree belt and so results in no material tree loss nor impact to landscape character. To enable a revised entrance bellmouth, where the track meets the public road, it is necessary to remove three ash trees (number 10) that are suffering from Ash Dieback; their loss is inevitable due to the disease.
  
- 4.10 In total, 34 no. trees and 375 linear metres of hedge are proposed for removal to accommodate these proposals. That loss will be offset by new planting as set out in section 5 below.
  
- 4.11 The scheme is remote from the veteran tree (tree number 60) that lies toward the eastern boundary of the application site. This ensures that an area far in excess of the Natural England recommended buffer is preserved unaltered by the proposed scheme.
  
- 4.12 The remainder of the proposed scheme is remote from trees and can be delivered without impact to them.

#### *Impact of drainage and services*

- 4.13 Other than SUDS basins, the proposed drainage and services are not shown on the proposed layout however there is ample scope to locate them outside of root protection areas and require no specialist measures for their installation.
  
- 4.14 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.
  
- 4.15 No other installations, including mechanical and electrical equipment, are proposed in an area that would be of detriment to trees.

## 5.0 New and replacement tree planting

- 5.1 The development proposals bring forward opportunity to plant a net gain of trees throughout the development. New tree planting, as part of site-wide biodiversity enhancements greatly enhances tree cover as part of an environmentally sensitive scheme to integrate the proposals within the surrounding landscape.
- 5.2 The proposed landscape scheme indicates the following planting:
- 175no. specimen native trees
  - Circa 60,000m<sup>2</sup> of native tree and shrub mix
  - Circa 1700 linear metres of retained and enhanced hedgerow
  - Other ecologically centred landscape enhancements
- 5.3 Compared to the 375 linear metres of hedge and 34no. trees proposed for removal the net gain of tree cover is clear to see.
- 5.4 Retaining existing trees and introducing new trees ensures a resource of trees alongside the application proposals. In so doing the local 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.
- 5.5 Those multiple benefits of this new tree planting, as part of the site's green infrastructure, include contribution to local landscape, enhancement of sustainable drainage systems, and enhancement of biodiversity.

## 6.0 Protection of trees during construction

- 6.1 To ensure the retained trees are safeguarded a tree protection plan has been prepared to show the location of protective measures. These measures need to be implemented in advance of construction and maintained until such time as soft landscape proposals require their removal.

## 7.0 Summary of impact assessment

- 7.1 The proposed development results in the loss of very few trees and mostly short sections of hedgerow. The overall impact on existing tree and hedgerow cover is very slight. The losses will be barely perceptible against the backdrop of tree and hedge retention.
- 7.2 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.
- 7.3 New and replacement tree planting is provided as part of these development proposals. It includes:
- 175no. specimen native trees
  - Circa 60,000m<sup>2</sup> of native tree and shrub mix
  - Circa 1700 linear metres of retained and enhanced hedgerow
  - Other ecologically centred landscape enhancements
- 7.4 This planting delivers a net gain of tree cover across the site. This new cohort of trees provides a diverse portfolio of tree cover to ensure sustainability of green infrastructure in the future.
- 7.5 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 <sup>1</sup>*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, <sup>2</sup>*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 <sup>3</sup>*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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<sup>1</sup> *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

<sup>2</sup> *Veteran Trees: A guide to good management* edited by Helen Read and published by English Nature et al

<sup>3</sup> *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.

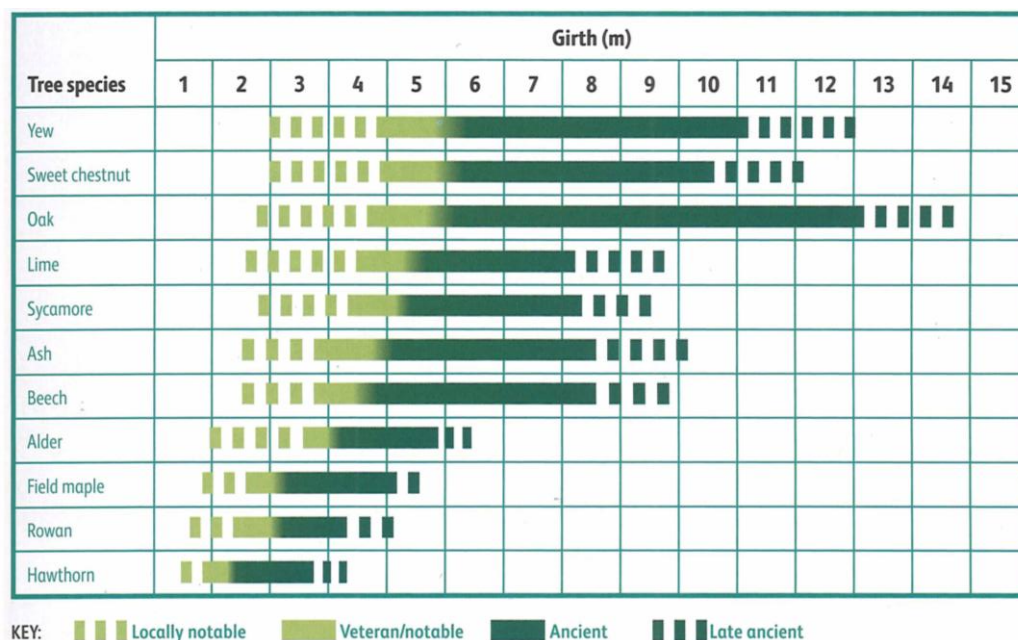


Figure 1- Chart of girth in relation to age and developmental classification of trees

# Appendix 3

## Schedule of Trees

*for land at  
East Claydon Greener Grid Park*

## 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	<i>Suffix 'e' denotes an estimated dimension.</i> <i>Suffix 'av' denotes an average dimension</i>
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 north of East Claydon Sub-station &amp; East Claydon Road, East Claydon

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	Tree Works to BS3998	Root protection radius (m)	Root protection area sq.m
							Single Stem	2-5 stems					More than 5 stems										
			N	E	S	W		Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems									
1	Ash	19	7	9	11	12	125e								5	5N	M	U	<10	Extensive stem decay due to <i>Inonotus hispidus</i> . Signs of Ash Dieback. Large broken section lodged within upper crown. Unsited to long term retention		15.00	707
2	English oak	16	5	7	9	10	95e								2	2W	E	A1	>40	Broad spreading tree growing close to river, Main stem covered in ivy.		11.40	408
3	Group of elm	11av	4av				25av								0	-	S	C2	>10	Collection of elm, Some of which are dead. Interspersed with occasional hawthorn.		3.00	28
4	Group of crack willow	17av	10av				55av								0	-	E	C2	>10	Group of stems growing beyond river. All attaining proportions where they are liable to failure.		6.60	137
5	Ash	12	4	5	6	6	30								3	3SW	S	C1	>10	Small tree growing on verge adjoining ditch. Showing early signs of Ash Dieback.		3.60	41
6	Mixed broadleaf hedge	2av	1av				10av								0	-	E	B2	>20	Established and maintained hedgerow to rear of verge. Mixed species including hawthorn, blackthorn, elm, field maple and hazel.		1.20	5
7	Ash	12	4	6	7	5	45e								3	3SE	S	C1	>10	Small tree growing in hedgerow. Showing signs of Ash Dieback. Unsited to long term retention.		5.40	92
8	Ash	10	3	4	4	5	50e								0	-	S	U	<10	Advanced Ash Dieback. Unsited to retention adjoining the highway.		6.00	113
9	Mixed broadleaf hedgerow	6av	2av				10av								0	-	S	C2	>10	Section of hedgerow adjoining farm entrance. Primarily elm. Most of which are dead. Includes some hawthorn.		1.20	5
10	Group of ash	14av	7av				40av								2	2E	E	C2	>10	Cluster of three stems adjoining farm track entrance. All showing signs of advanced Ash Dieback. Unsited to retention adjoining the highway.	Remove.	4.80	72
11	Mixed broadleaf hedgerow	2av	2av				10av								0	-	E	B2	>20	Established but outgrown hedgerow alongside former railway line. Mixed species including hawthorn and blackthorn.	Remove section as shown.	1.20	5

## Schedule of trees on land north of East Claydon Sub-station &amp; East Claydon Road, East Claydon

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	Tree Works to BS3998	Root protection radius (m)	Root protection area sq.m
							Single Stem	2-5 stems					More than 5 stems										
			N	E	S	W		Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems									
12	Ash	15	7	8	8	9	57								3	3SW	E	C1	>10	Larger component of tree belt but showing signs of Ash Dieback. Unsited to long term retention.		6.84	147
13	Ash	15	7	9	10	10	60								2	2SE	E	C1	>10	Larger component of tree belt but showing signs of Ash Dieback. Unsited to long term retention.		7.20	163
14	Mixed broadleaf tree belt	13av	4av				35av								0	-	S	B2	>20	Prominent band of trees growing to east of old railway line. Mixed species include hawthorn blackthorn, elder grey poplar, sycamore and English oak. Directly adjoining the old railway line it appears that trees have been planted rather than naturally established.		4.20	55
15	Ash	14	6	6	6	6	48								4	4S	E	C1	>10	Established tree growing on bank of old railway line. Showing signs of Ash Dieback.		5.76	104
16	Ash	12	5	5	4	3	40								2	2W	E	C1	>10	Established tree growing on bank of old railway line. Showing signs of Ash Dieback.		4.80	72
17	Ash	13	7	6	5	6	44								2	2W	E	C1	>10	Established tree growing on bank of old railway line. Showing signs of Ash Dieback.		5.28	88
18	Group of mixed broadleaves	7av	3av				15av								0	-	S	C2	>10	Collection of smaller trees underneath of overhead power lines. No tree of any particular merit. Mixed species including sycamore, hawthorn, ash and elder.	Remove section as shown.	1.80	10
19	Mixed broadleaf tree belt	13av	4av				35av								0	-	S	B2	>20	Prominent band of trees growing to east of old railway line. Mixed species include hawthorn blackthorn, elder grey poplar, sycamore and English oak. Directly adjoining the old railway line it appears that trees have been planted rather than naturally established.		4.20	55

## Schedule of trees on land north of East Claydon Sub-station &amp; East Claydon Road, East Claydon

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	Tree Works to BS3998	Root protection radius (m)	Root protection area sq.m
							Single Stem	2-5 stems					More than 5 stems										
			N	E	S	W		Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems									
20	English oak	17	7	6	7	7	76								2	2N	E	B1	>20	Established tree growing to the west of old railway line. Reasonable shape and form.		9.12	261
21	Group of mixed broadleaves	2av	1av				10av								0	-	S	C2	>10	Collection of smaller tress that are maintained to provide clearance to overhead wires. Species include hawthorn, field maple, alder and sycamore.		1.20	5
22	Mixed broadleaf tree belt	13av	4av				35av								0	-	S	B2	>20	Prominent band of trees growing to east of old railway line. Mixed species include hawthorn blackthorn, elder grey poplar, sycamore and English oak. Directly adjoining the old railway line it appears that trees have been planted rather than naturally established.	Remove section as shown.	4.20	55
23	European larch	6	2	2	2	1	23								1,2	1.2S	S	C1	>10	Small tree growing to best of railway line.		2.76	24
24	English oak	11	6	5	6	6	33								2	2S	S	B1	>20	Small tree growing to best of railway line.		3.96	49
25	English oak	9	6	2	5	3	29								2	2N	S	C2	>10	Small tree growing to best of railway line.		3.48	38
26	Row of beech	11av	6av				30av								2	2N	S	B2	>20	Row of established trees to west of drive. Appear to have been planted.	Remove 2 stem as shown.	3.60	41
27	English oak	12	5	5	5	4	45								2	2SW	S	B1	>20	Well formed tree growing to west of railway line.		5.40	92
28	English oak	17	9	8	8	8	80e								2	2S	M	A1	>40	Larger tree growing within hedgerow alongside ditch. Main stem covered in ivy.		9.60	290
29	Ash	14	6	6	6	6	46								3	3S	E	C1	>10	Established tree growing to west of railway line. Showing signs of Ash Dieback.	Remove.	5.52	96
30	Ash	16	7	7	7	6	47								4	4N	E	C1	>10	Established tree growing to west of railway line. Showing signs of Ash Dieback.	Remove.	5.64	100
31	Ash	7	6	7	6	7	49								3	3N	E	C1	>10	Established tree growing to west of railway line. Showing signs of Ash Dieback.		5.88	109
32	Southern beech	9	3	1	2	2	24								2	2N	S	C1	>10	Unusual species but suffering crown dieback.		2.88	26

## Schedule of trees on land north of East Claydon Sub-station &amp; East Claydon Road, East Claydon

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	Tree Works to BS3998	Root protection radius (m)	Root protection area sq.m
							Single Stem	2-5 stems					More than 5 stems										
			N	E	S	W		Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems									
33	Southern beech	11	3	2	2	4	31								2	2N	S	C1	>10	Unusual species but suffering crown dieback.		3.72	43
34	English oak	11	4	2	3	3	30								2	2W	S	B1	>20	Reasonably well formed tree growing to west of railway line.		3.60	41
35	English oak	5	2	2	2	2	16								1.5	1.5S	Y	C1	>10	Small tree growing to west of railway line.		1.92	12
36	Southern beech	11	3	2	3	3	38								2	2SW	S	B1	>20	In better condition than other examples of this species.	Remove.	4.56	65
37	English oak	13	7	5	6	6	39								1.8	1.8W	S	B1	>20	Well formed tree growing to west of railway line.	Remove.	4.68	69
38	English oak	13	6	2	5	5	30								2	2W	S	B1	>20	Reasonably well formed tree growing to west of railway line.		3.60	41
39	Mixed broadleaf hedgerow	2av	1av				10av								0	-	E	B2	>20	Established hedgerow around boundary of field. Primarily hawthorn and blackthorn. Includes occasional larger ash and English oak. Ash is showing signs of Ash Dieback.		1.20	5
40	Mixed broadleaf hedgerow	5av	2av				15av								0	-	E	B2	>20	Established but outgrown hedgerow growing alongside ditch. Species include hawthorn, blackthorn, elm, field maple and English oak.		1.80	10
41	Ash	15	7	6	7	9		45e	45e	45e					2	2N	E	C1	>10	Multi stemmed tree growing to north off ditch. Showing signs of Ash Dieback.		9.35	275
42	English oak	14	6	6	7	5	40e								3	3S	S	B2	>20	Larger component of hedgerow. Growing to north of ditch.		4.80	72
43	English oak	11	5	4	5	5	70e								3	3S	E	B2	>20	Larger component of hedgerow. Growing to north of ditch.		8.40	222
44	English oak	15	7	7	8	7	80e								4	4S	E	B2	>20	Larger component of hedgerow. Growing to north of ditch. Main stem smothered in ivy.		9.60	290
45	Mixed broadleaf copse	15av	4av				35av								0	-	E	B2	>20	Established block of woodland to north of site. Mixed species including English oak, ash, cherry and occasional Scots pine and Norway spruce.		4.20	55

## Schedule of trees on land north of East Claydon Sub-station &amp; East Claydon Road, East Claydon

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	Tree Works to BS3998	Root protection radius (m)	Root protection area sq.m
							Single Stem	2-5 stems					More than 5 stems										
			N	E	S	W		Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems									
46	Ash	14	6	7	8	8	80e								3	3S	M	C2	>10	Contributes to woodland. Showing signs of Ash Dieback. Large cavity at circa 3-4 metres above ground level. Extensive hollowing. Potential ecological resource.		9.60	290
47	Mixed broadleaf hedgerow	6av	2av				15av								0	-	E	B2	>20	Established but outgrown hedgerow along southern edge of copse. Growing to north of ditch.		1.80	10
48	Ash	15	7	6	8	8	70e								3	3S	E	C2	>10	Contributes to woodland group. Advanced Ash Dieback.		8.40	222
49	Ash	13	7	7	7	7	65e								3	3S	E	C2	>10	Contributes to woodland group. Advanced Ash Dieback.		7.80	191
50	Mixed broadleaf hedgerow	1.8av	1av				10av								0	-	E	B2	>20	Well maintained hedgerow dividing fields. Predominantly hawthorn and blackthorn. Occasional elm and dogwood. Occasional gaps would benefit from restocking.		1.20	5
51	Ash	8	4	4	4	4		20e	15e						2	2S	S	C2	>10	Larger component of hedgerow showing signs of Ash Dieback.		3.00	28
52	Mixed broadleaf hedgerow	8av	3av				15av								0	-	E	B2	>20	Established, but outgrown, hedgerow between fields. Mixed species include hawthorn, blackthorn, elm and field maple.		1.80	10
53	English oak	18	8	9	10	12		82	98						3	3W	M	A1&3	>40	Larger component of hedgerow. Twin stemmed from ground level.		15.00	707
54	Mixed broadleaf hedgerow	6av	3av				30av								0	-	E	C2	>10	Established but derelict hedgerow with large gaps between. Plants within the hedgerow are of poor quality. Includes occasional ash that are showing advanced Ash Dieback. Would benefit from being brought back under management. This should be a gradual process to introduce new hedging plants within the row whilst retaining the ecological interest of the existing plants.		3.60	41

## Schedule of trees on land north of East Claydon Sub-station &amp; East Claydon Road, East Claydon

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							Single Stem	2-5 stems					More than 5 stems										
			N	E	S	W		Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia										No. stems
55	Group of mixed broadleaves	15av	8av				65av								0	-	E	B2	>20	Scattered clusters of trees alongside river corridor predominantly crack willow with some English oak, goat willow, hawthorn and blackthorn.		7.80	191
56	Mixed broadleaf hedgerow	2av	1.5av				15av								0	-	E	B2	>20	Established but sparse hedgerow. Browsing has removed much of the lower vegetation. Would benefit from being brought back under management.	Remove section as shown.	1.80	10
57	Mixed broadleaf hedgerow	8av	3av				15av								0	-	E	B2	>20	Established but outgrown hedgerow. Includes occasional taller elm. Would benefit from being brought back under management.		1.80	10
58	Group of ash	14av	7av				50av								0	-	E	C2	>10	Larger components of hedgerow. Were previously laid as part of the hedge. Now showing signs of Ash Dieback.		6.00	113
59	Mixed broadleaf hedgerow	3av	2av				15av								0	-	E	B2	>20	Established but outgrown hedgerow. Extensive browsing at lower level. Would benefit from being brought back under management. Mixed species including hawthorn, elm and blackthorn.		1.80	10
60	English oak	16	7	7	11	9	174								2	2S	M	A1&3	>40	Veteran tree with numerous cavities, splits and decay features that are useful ecological resources. Lower stem hollowed with apertures around base. Old fungal fruit bodies of Ganoderma species of decay fungi. Cavities at greater height. One appears to be used by nesting birds.		15.00	707
61	English oak	16	7	6	7	9	100e								3	3S	E	A1	>40	Larger component of hedgerow. Main stem smothered in ivy.		12.00	452
62	Mixed broadleaf hedgerow	7av	3av				15av								0	-	E	B2	>20	Established but outgrown hedgerow. Sparse from the base. Extensive browsing at lower level. Would benefit from being brought back under management. Mixed species including hawthorn, elm and blackthorn.		1.80	10

## Schedule of trees on land north of East Claydon Sub-station &amp; East Claydon Road, East Claydon

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	Tree Works to BS3998	Root protection radius (m)	Root protection area sq.m
							Single Stem	2-5 stems					More than 5 stems										
			N	E	S	W		Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems									
63	Ash	11	7	5	7	6	95e								3	3N	M	C1&3	>10	Extensive crown dieback. Hollowing of main stem. Ash Dieback. Of broad squat form and could be retained within the hedgerow as an ecological resource.		11.40	408
64	Ash	18	9	8	7	7	88								3	3W	M	C1	>10	Larger tree growing within hedgerow. Extensive dieback due to lack of vitality and Ash Dieback. Hollowing at base and at circa 3m above ground level.		10.56	350
65	Ash	12	5	6	6	6	75e								3	3S	M	C1	>10	Larger component of hedgerow. Extensive crown dieback. Numerous splits and hollows that are useful ecological resources.		9.00	255
66	Ash	15	7	7	7	7	95e								3	3W	M	C1	>10	Larger component of hedgerow. Past crown dieback. Current evidence of Ash Dieback. Main stem covered in ivy. Some hollows and cavities associated with past branch loss. These form usual ecological resources.		11.40	408
67	Mixed broadleaf hedge	2av	1av				10av								0	-	E	B2	>20	Established hedgerow between fields. Predominantly hawthorn and elm with some blackthorn.	Remove section as shown.	1.20	5
68	Ash	15	8	8	6	7	75e								3	3W	M	C1	>10	Larger component of hedgerow. Some hollowing associated with past stem loss. Ash Dieback.		9.00	255
69	Ash	15	7	7	6	7	65e								3	3S	E	C1	>10	Larger component of hedgerow. Advanced Ash Dieback.		7.80	191
70	Ash	9	5	4	4	3	28								2	2NW	S	C1	>10	Larger component of hedgerow. Ash Dieback.		3.36	35
71	Ash	9	4	3	3	2	40e								2	2W	S	C1	>10	Larger component of hedgerow. Ash Dieback		4.80	72
72	Mixed broadleaf hedge	1.2av	1av				10av								0	-	E	B2	>20	Established hedgerow between fields. Predominantly hawthorn and elm with some blackthorn.		1.20	5
73	Ash	9	4	4	3	3	35e								2	2W	S	C1	>10	Larger component of hedgerow. Ash Dieback.		4.20	55

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							Single Stem	2-5 stems					More than 5 stems										
			N	E	S	W		Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems									
74	Ash	8	3	4	4	3						6	15	2	2SE	E	C1	>10	Larger component of hedgerow.		2.79	24	
75	Mixed broadleaf hedgerow	2av	2av				10av								0	-	E	B2	>20	Established but outgrown hedgerow alongside field. Predominantly blackthorn with some hawthorn and elm.		1.20	5
76	Mixed broadleaf hedgerow	1.8av	1av				10av								0	-	E	B2	>20	Established and well maintained hedgerow extending west of site.		1.20	5
77	Mixed broadleaf hedgerow	2av	1av				10av								0	-	E	B2	>20	Established and well maintained hedgerow around garden. Mixed species include Pyracantha, beech, hawthorn.		1.20	5
78	Group of mixed trees	11av	6av				45av								2	2E	S	B2	>20	Collection of small trees growing within adjoining garden. Species include yew, Norway maple, Scots pine, birch, Cypress and English oak.		5.40	92
79	Mixed broadleaf hedgerow	1.8av	1av				10av								0	-	E	B2	>20	Established hedgerow at edge of field. Predominately elm with some blackthorn and hawthorn.		1.20	5
80	Row of ash	10av	6av				45av								2	2E	S	C2	>10	Row of trees within hedgerow. All smothered in ivy. All showing signs of Ash Dieback.		5.40	92
81	Group of conifers	11av	3av				25av								0	-	S	C2	>10	Small pocket of conifers growing beyond boundary. Predominantly Scot pine with some Norway spruce. Includes occasional hawthorn, blackthorn and sycamore and some elm.		3.00	28
82	Mixed broadleaf hedgerow	2av	1av				10av								0	-	E	B2	>20	Established hedgerow at edge of field. Predominately elm with some blackthorn and hawthorn.	Remove section as shown.	1.20	5
83	Ash	17	6	7	8	9	75e								2	2W	E	C1	>10	Larger component of hedgerow. Some past storm damage. Extensive Ash dieback.		9.00	255
84	English oak	15	7	7	10	9	75e								3	3W	E	A1	>40	Visually significant broad spreading tree growing within hedgerow. Main stem smothered in ivy.		9.00	255
85	English oak	14	6	6	6	4	65e								2	2N	E	B1	>20	Larger component of hedgerow.		7.80	191



## Schedule of trees on land north of East Claydon Sub-station &amp; East Claydon Road, East Claydon

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	Tree Works to BS3998	Root protection radius (m)	Root protection area sq.m
							Single Stem	2-5 stems					More than 5 stems										
			N	E	S	W		Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems									
86	Ash	9	4	4	4	4	30e								2	2N	S	C1	>10	Small tree growing within hedgerow.		3.60	41
87	Ash	12	6	7	7	8	85e								4	4N	E	C1	>10	Has lost its central leader in the past. Main stem smothered in ivy. Extensive Ash Dieback.		10.20	327
88	English oak	11	5	5	5	6	60e								2	2W	E	B1	>20	Larger tree within hedgerow. Squat form. Main stem smothered in ivy.		7.20	163
89	Mixed broadleaf hedge	2av	1av				10av								0	-	E	B2	>20	Established hedgerow alongside road. Mixture of hawthorn, blackthorn, field maple and elm.	Remove section as shown.	1.20	5
90	Ash	15	7	5	7	6	75e								2	2W	E	C1	>10	Extensive decay in upper stem. Ash Dieback. Unsited to long term retention adjoining the highway.		9.00	255
91	English oak	17	10	8	9	11	110e								2	2SW	M	A1&3	>40	Visually significant tree alongside road. Some deadwood within crown. Ivy smothered.		13.20	547
92	Ash	14	7	6	6	6	75e								2	2W	E	C1	>10	Has lost its central leader in the past. Extensive Ash Dieback. Main stem covered in ivy. Unsited to retention alongside the highway.		9.00	255
93	English oak	13	6	6	7	7	80e								2	2S	E	A1&3	>40	Broad spreading tree in hedgerow adjoining highway. Some decay and splits associated with past branch loss.		9.60	290
94	Ash	13	6	3	6	7	44								2	2S	S	C1	>10	Larger component of hedgerow. Advanced Ash Dieback.		5.28	88
95	English oak	15	7	8	7	6	85e								2	2N	M	A1&3	>40	Squat tree growing within hedgerow. Some decay and splits associated with past branch loss. Main stem partially smothered in ivy.		10.20	327
96	Ash	14	5	6	5	5	45e								2	2S	S	C1	>10	Larger component of hedgerow but showing advanced Ash Dieback. Main stem covered in ivy.		5.40	92
97	Mixed broadleaf hedgerow	8av	4av				20av								0	-	E	B2	>20	Established but outgrown hedgerow alongside road. Mixed species including hawthorn, blackthorn, field maple, goat willow and elm.		2.40	18

## Schedule of trees on land north of East Claydon Sub-station &amp; East Claydon Road, East Claydon

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	Tree Works to BS3998	Root protection radius (m)	Root protection area sq.m
							Single Stem	2-5 stems					More than 5 stems										
			N	E	S	W		Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems									
98	Group of ash	12av	6av				40av								0	-	S	C2	>10	Group of trees within hedgerow. All showing signs of Ash Dieback.		4.80	72
99	Mixed broadleaf hedgerow	1.5av	1av				10av								0	-	E	C2	>10	Sparse section of hedgerow that is mainly dominated by bramble. Contains occasional hawthorn and blackthorn.		1.20	5
100	Mixed broadleaf hedgerow	6av	3av				15av								0	-	E	B2	>20	Established but outgrown hedgerow. Predominantly hawthorn and blackthorn.		1.80	10
101	Mixed broadleaf hedgerow	3av	2av				10av								0	-	E	B2	>20	Established but outgrown hedgerow at edge of field. Contains occasional larger ash and English oak.		1.20	5
102	Group of hybrid poplar	9av	3av				25av								0	-	S	C2	>10	Group of young trees growing in verge adjoining road.		3.00	28
103	Mixed broadleaf hedge	2av	1av				10av								0	-	E	B2	>20	Established hedgerow between fields. Extensive browsing has removed much of lower foliage. Species include elm, hawthorn and blackthorn.		1.20	5
104	Ash	16	10	9	10	9	80e								3	3N	E	C1	>10	Larger component of hedgerow. Advanced Ash Dieback. Main stem partially smothered in dead ivy.		9.60	290
105	Elm	13	6	7	5	4	31								2	2NE	S	C1	>10	Has outgrown from hedgerow and sheltered by the adjoining ash. Attaining a size where it many succumbed to Dutch Elm Disease.		3.72	43
106	Ash	16	7	8	7	3	65e								3	3SE	E	C1	>10	Larger component of hedgerow. Advanced Ash Dieback. Unsited to long term retention.		7.80	191
107	English oak	16	8	7	6	6	80e								3	3S	M	B3	>20	Lacking vitality but larger component of hedgerow. Some splits and cavities associated with past branch loss. Hollowing of lower stem. Can be retained for its ecological value.		9.60	290

Schedule of trees on land north of East Claydon Sub-station & East Claydon Road, East Claydon

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	Tree Works to BS3998	Root protection radius (m)	Root protection area sq.m
							Single Stem	2-5 stems					More than 5 stems										
			N	E	S	W		Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia	No. stems									
108	English oak	17	9	9	8	7	90e								3	3S	M	A1&3	>40	Larger component of hedgerow. Broad spreading form. Main stem partially smothered in ivy. Some splits and cavities associated with past branch loss.		10.80	366
109	English oak	16	8	9	9	9	89								3	3W	M	A1&3	>40	Larger component of hedgerow. Broad form. Some splits and cavities associated with past branch loss.		10.68	358