

Arboricultural report in support of a planning application, (BS:5837):

- Tree Survey
- Arboricultural Impact Assessment
- Tree Constraints Plan
- Tree Retention and Protection Plan

SITE LOCATION:

The Brook
Cuttinglye Road
Crawley Down
West Sussex
RH10 4LR



Date of Issue:
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Arboricultural Impact Assessment (BS:5837)

1.0 Introduction / Background:

1.1 Introduction

- 1.1.1 The principal author of this Arboricultural Impact Assessment, (AIA), is Nicholas Eddison BA, DipArb, Principal Arboricultural Consultant at The Sussex Tree Company. Nicholas is a Technician member of the Arboricultural Association, an Assessor for the Arboricultural Association's Approved Contractor scheme and is LANTRA certified to undertake Professional Tree Inspections.

1.2 Instruction

- 1.2.1 We are instructed by Mr. and Mrs Roff, ('the Clients'), and Scandia-Hus to undertake an arboricultural report in support of a planning application, following guidance set out in the British Standard document number 5837 "Trees in relation to design, demolition and construction – recommendations" (2012), and publish our findings in a report document, for a fee.
- 1.2.2 This report is an Arboricultural Impact Assessment, ('AIA'); a second report, an 'outline' Arboricultural Method Statement, ('AMS'), accompanies and is included in this report, (at the end, section no. 11). This AIA report will provide any interested parties with a comprehensive assessment of the potential impacts on the retained trees at the Site. It is accepted that chief among the interested parties for this report is the arboricultural officer(s) of the Local Planning Authority, ('LPA'), Mid Sussex District Council.

1.3 Scope of the project.

- 1.3.1 The development site, ('the Site'), is located within the boundaries of the existing property at The Brook, Cuttinglye Road, Crawley Down, RH10 4LR, which is presently owned by the Clients and is presently unoccupied. The design plan proposes to demolish the existing dwelling, a detached house which has historically been extended on a number of occasions and construct a new dwelling, the majority of which is based on the footprint of the existing dwelling & associated hard standing which presently surrounds the existing dwelling. The new dwelling will be designed and installed by Scandia-Hus. The outline of the footprint of the new dwelling is shown as a red line shape on the Tree Constraints Plan, ('TCP'), at Appendix 2. Disruption to the surrounding landscape, which is chiefly woodland, is to be kept to a minimum. In terms of this AIA report, there are minimal impacts exerted on the design plan by the existing treescape and no impact from Root Protection Areas, ('RPAs').
- 1.3.2 The scope of this project is fivefold:
- I. Undertake a survey of trees on the Site and within influencing distance of the Site to fulfil the requirements of BS5837:2012 *Trees in Relation to Design*,

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Demolition and Construction: Recommendations.

- II. Provide a Tree Constraints Plan, ('TCP'), for the Site including root protection areas and canopy spreads.
- III. Provide an AIA, in relation to the design proposal, providing comment in relation to the building orientation. The AIA will assess the trees in relation to the proposals, and the potential impacts the trees will have.
- IV. Provide an outline AMS which will provide guidance on methodologies to ensure the implementation of the design plan does not negatively impact any trees, or if there is impact, ensure it is rational, minimised and is sufficiently mitigated.
- V. Provide a Tree Retention and Protection Plan, ('TRPP'), for the Site, showing the location of any tree protection apparatus.

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1.4 Reference Documents

1.4.1 As background information, the following documentation has been referenced.

Table 1: Document and Plans Provided / Referenced

Document Description	Reference Number	Prepared By	Date
Existing Topographical Survey	PS/039/01	Perceptum Surveys	02/2025
Existing Site Plan	ROFF-541714-SCA-XX-PL-001	Scandia-Hus	09/2025
Proposed Site Plan	ROFF-541714-SCA-XX-PL-010	Scandia-Hus	09/2025
The Brooks – MAGIC Map Screenshot	n/a	The Sussex Tree Company	07/2025
The Brooks – Tree Constraints Plan	STC-TCP-TB-02	The Sussex Tree Company	09/2025
The Brooks – Tree Retention and Protection Plan	STC-TRPP-TB-02	The Sussex Tree Company	09/2025

1.1.5 The report publishes: research methodology, findings and recommendations in relation to all existing trees and groups of trees which may be impacted by the proposed development; quantifies these trees / groups of trees according to their estimated life expectancy and quality; details whether any are to be removed in order to facilitate the development; offers mitigation strategies, with accompanying methodologies, for the protection of trees / groups of trees that are to be retained; and

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suggests appropriate mitigation for any trees / groups of trees to be removed. More detailed protection methodologies and mitigation strategies can be presented as a separate, detailed AMS report document, if required by the LPA. This can be ordered as a part of a planning condition accompanying the granting of planning permission.

1.5 Report limitations

- 1.5.1 The contents are intended for the sole use of the Client(s), authorised agents of the client(s) and planners from the LPA in respect of this development project only. No liability is accepted for their use by any other parties to advance an argument or claim (including legal or financial) without prior consent.

(1.5 – ‘Report Limitations’ continues, and sections 1.5.2. – 1.5.13 can be found in Appendix 5)

1.6 Access conditions

- 1.6.1 Access to all parts of the property was unimpeded. Access to 3rd party or public land was not required to complete the tree survey.

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2.0 Planning Policy and Legislation

2.1.1 *National Planning Policy Framework (NPPF)*: When determining planning applications, local planning authorities, ('LPAs'), should aim to conserve and enhance biodiversity. If significant harm resulting from a development cannot be avoided, (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused. Opportunities to incorporate biodiversity in and around developments should be encouraged (Paragraph 118).

2.1.2 When determining planning applications, LPAs aim to apply the following principles:

*Planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, **unless the need for, and benefits of, the development in that location clearly outweigh the loss (paragraph 118).***

2.1.3 There are no tree removals required to implement the design plan for this proposed project and therefore no loss of irreplaceable habitats, aged or veteran trees. Any impacts to trees located at the proposed development Site are minimal and are limited to minor crown lifting work which effectively will have no detrimental impact on those trees. Because of this, the principles for refusal within the NPPF would not be considered applicable.

2.2 Statutory Tree Protections

2.2.1 The LPA has been contacted to establish whether any trees contained within the survey are protected by either a Tree Preservation Order (TPO) or are located within a local Conservation Area.

2.2.2 The LPA's online TPO map was accessed; a search for The Brook, Cuttinglye Road, Crawley Down, RH10 4LR revealed there are no TPOs active and in force for the entire Site, and it is not located within a Conservation Area, ('CA'), (see the screenshot of the LPAs TPO map, Appendix 4).

2.2.3 MAGIC Map, (**M**ulti-**A**gency **G**eographic **I**nformation for the **C**ountryside), was accessed; a search for The Brook, Cuttinglye Road, Crawley Down, RH10 4LR revealed that sections of the property is designated Ancient Woodland, (England). These sections do not encompass any of the active development Site, but sections of the access roadway and the Tree Survey Area are within the designation. See Appendix 4 for a screenshot of the MAGIC Map for more detail.

2.2.4 It should be considered that any proposed tree works detailed in the tree schedule are also implemented as part of the planning decision consent.

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2.3 Felling Licence

- 2.3.1 Tree felling is also restricted under the Forestry Act 1967. Under this act, there is an exemption from the need for a felling licence when referring *“to the felling of fruit trees or trees standing or growing on land comprised in an orchard, garden, churchyard or public open space.”*
- 2.3.2 As there are no trees requiring removal to deliver the design proposal, felling licence restrictions do not apply. In any event, felling licence exemptions apply because the trees at the Site are located in a garden.

2.4 Trees and Wildlife

- 2.4.1 The Wildlife and Countryside Act 1981, (as amended), the Countryside and Rights of Way Act 2000 and the Conservation of Species and Habitat Regulations 2010, (as amended) provide statutory protection of birds, bats and other species that can inhabit trees.
- 2.4.2 Great care is required to avoid disturbance to those species and consideration should be given to the timing of tree works in order to avoid disturbance. Where the presence of such species is suspected and proposed works to the tree may affect any protected species, (or their habitats), the project ecologist or Natural England should be contacted for advice.

3.0 Site Assessment

3.1 Site Visit

- 3.1.1 A Site visit was carried out by Nicholas Eddison *BA (Hons) DipArb*, on 9th July 2025, who surveyed all the significant trees and groups of trees throughout the Site, (and other relevant areas), from ground level including those with a diameter at breast height, ('DBH'), of more than 15cm, (where possible, DBH is taken at 1.3m above ground level; where this is not possible, this is indicated in the survey sheet data). The owners of the site were informed of his presence on site and prior to undertaking the inspection of the trees.

3.2 Site Description

- 3.2.1 The Site is located entirely within the existing property at a search for The Brook, Cuttinglye Road, Crawley Down, RH10 4LR. This property is residential and there is presently an existing, detached dwelling surrounded by gardens and woodland. There are a number of outbuildings at the property including a garage / sheds / garden buildings / a derelict stable and a caravan. There is also a recognisable, but unmaintained horse paddock at the property. The existing dwelling contains an historic well. It is set back from the roadway of Cuttinglye Road by approximately

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120m and is accessed by an internal, double-access roadway which is constructed from either road scalpings or pea shingle laid over hardcore and MOT compactable aggregate. The majority of the property is covered by woodland and the majority of this woodland is designated as Ancient Woodland, (see MAGIC Map screenshot, Appendix 4). However, the existing dwelling, its garages and outbuildings, (except the stables), and the designated development Site are not within this designated woodland, though sections of the eastern access roadway are. The existing dwelling at the Site has been extended a number of times over the years and the dwelling and extensions are no longer fit for purpose, hence the proposal to demolish the existing structures and replace them with a more suitable dwelling, as per the Scandia-Hus design plan.

3.2.2 Site topography:

- The Site is predominantly flat; the property slopes away to the East, but the designated Site is unaffected by this.
- The Site is roughly rectangular-shaped. The northern boundary is approximately 46m in length; the eastern boundary is approximately 79m in length; the southern boundary is approximately 43m in length; and the western boundary is approximately 73m in length.
- The Site is surrounded by other parts of the property on all sides; there are other residential properties to the north, east and west of this property, and further Ancient Woodland to the south
- There is a parking area to the immediate north of the existing dwelling which is in part surfaced in concrete and pea-shingle. There is a driveway connecting the existing dwelling with Cuttinglye Road to the north, which is U-shaped and has double access. This is surfaced in road scalpings on the northern sections & pea-shingle on the southern sections, closest to the existing dwelling. Below the surfacing is either compacted hardcore or MOT.
- Additional to the footprint of the existing dwelling, there are areas of pre-existing hard surfacing throughout the Site; these are the existing outbuildings and garages, areas of concrete immediately surrounding these, the driveway and other pathways, a raised stone veranda attached onto the southern aspect of the existing dwelling and areas of patio paving to the east of the existing dwelling.

3.2.3 The site's underlying geology is predominantly Sandstone and mudstone:

Superficial deposits: No superficial deposits recorded

Bedrock geology: Upper Tunbridge Wells Sand - Mudstone. Sedimentary bedrock formed between 139.4 and 133.9 million years ago during the Cretaceous period.

4.0 Planning Proposal

- 4.1.1 The planning proposal is to demolish the existing dwelling at The Brook, including extensions, and then construct a new dwelling designed by Scandia-Hus with the overwhelming majority on the same footprint that was occupied by the existing dwelling & associated existing hardstanding.

5.0 Arboricultural Assessment

5.1 Method of Data Collection

- 5.1.1 The trees on the site were originally surveyed without reference to the site layout as detailed in Clause 4.4.1.1 of BS5837:2012. However, for the purposes of this arboricultural assessment, the design proposal for the site has been considered.
- 5.1.2 The survey recorded trees either as individual specimens or as groups of trees, where these trees were aerodynamically, culturally or visually important as groups of trees. The tree numbers associated with each tree are cross-referenced within the schedule and plans at Appendix 1 and 2 respectively. The complete method of data collection for the tree survey is provided at Appendix 6.

5.2 Summary of Data

- 5.2.1 The overall survey includes records of 83nos. individual trees and 2 nos. groups of trees. There are 49 trees classified as category A; there are 26 trees and 2 groups of trees classified as category B; there are 5 trees classified as category C; and there are 2 trees which are Unclassified, ('U'). None of the trees, groups of trees or hedgerows RPAs' directly impact the design proposal, because the proposal is to demolish the existing dwelling & construct a new dwelling chiefly within the footprint of the existing building & associated hard landscaping. There are no encroachments into the Root Protection Area's, ('RPAs'), of any retained trees required in order to deliver the design plan. The RPAs of 12 trees at present are impacted by the existing dwelling, (and therefore, potentially, the new dwelling), however this impact is classified as 'indirect', because the rooting structures of these trees are presently accommodating or avoiding the existing building and its foundational structures, so therefore would not be directly impacted by the replacement of these structures, (and the construction of the proposed new dwelling does not require excavating or encroaching further into these RPAs). There are no trees or groups of trees scheduled for removal.
- 5.2.2 T1 & T2, (Oak, *Quercus robur* – category B), are semi-mature specimens located within the Ancient Woodland designation close to a derelict shed constructed of asbestos material. T1 and T2 are satisfactory example of the species. T1 and T2 are scheduled for retention.
- 5.2.3 T3, (Holly, *Ilex aquifolium* – category B), is a semi-mature specimen located within the Ancient Woodland designation close to a derelict shed constructed of asbestos

material. T3 has co-dominant stems. T3 is a satisfactory example of the species. T3 is scheduled for retention.

- 5.2.4 T4 – T11, (Oak, *Quercus robur* – category A), are semi-mature specimens located within the Ancient Woodland designation. T4 trifurcates at approximately 1m AGL. T4 – T11 are remarkable examples of the species. T4 – T11 are scheduled for retention.
- 5.2.5 T12 and T13, (Scot's Pine – category A), are mature specimens located within the Ancient Woodland designation. T12 and T13 are remarkable examples of the species. T12 and T13 are scheduled for retention.
- 5.2.6 T14, T16 and T20, (Douglas Fir, *Pseudotsuga menziesii* – category A), are mature specimens located outside the Ancient Woodland designation. T14, T16 and T20 are remarkable examples of the species. T14, T16 and T20 are scheduled for retention.
- 5.2.7 T15, (Scot's Pine – category B), is a semi-mature specimen located outside the Ancient Woodland designation. T15 is a satisfactory example of the species. T15 is scheduled for retention.
- 5.2.8 T17 – T19, (Lawsons Cypress, *Chamaecyparis lawsoniana* – category B), are semi-mature specimens located outside the Ancient Woodland designation. T17 – T19 are satisfactory examples of the species. T17 – T19 are scheduled for retention.
- 5.2.9 T21, (Scot's Pine – category U), is a dead specimen located within the Ancient Woodland designation. T21 is a poor example of the species. T21 is scheduled for retention at present in relation to this proposed development but should be removed as part of good Arboricultural and health and safety practice.
- 5.2.10 T22, (Scot's Pine – category C), is a mature specimen located within the Ancient Woodland designation and is ivy-clad. T22 is an unsatisfactory example of the species. T22 is scheduled for retention.
- 5.2.11 T23 and T24, (Scot's Pine – category A), are mature specimens located within the Ancient Woodland designation, and are ivy-clad. T23 and T24 are remarkable examples of the species. T23 and T24 are scheduled for retention.
- 5.2.12 T25, (Douglas Fir, *Pseudotsuga menziesii* – category A), is a semi-mature specimen located outside the Ancient Woodland designation. T25 is a remarkable example of the species. T25 is scheduled for retention.
- 5.2.13 T26, T27 and T29, (Douglas Fir, *Pseudotsuga menziesii* – category A), are mature specimens located outside the Ancient Woodland designation. T26, T27 and T29 are remarkable examples of the species. T26, T27 and T29 are scheduled for retention.
- 5.2.14 T28 and T30, (Douglas Fir, *Pseudotsuga menziesii* – category B), are semi-mature specimens located outside the Ancient Woodland designation. Both are somewhat suppressed by adjacent trees, and T30 is ivy-clad. T28 and T30 are satisfactory examples of the species. T28 and T30 are scheduled for retention.

- 5.2.15 T31, (Scot's Pine, *Pinus sylvestris* – category U), is a dead specimen located outside the Ancient Woodland designation. T31 is a poor example of the species. T31 is scheduled for retention at present in relation to this proposed development but should be removed as part of good Arboricultural and health and safety practice.
- 5.2.16 T32, (Scot's Pine, *Pinus sylvestris* – category C), is a semi-mature specimen located outside the Ancient Woodland designation. T32 has sparse foliage due to suppression from adjacent trees. T32 is an unremarkable example of the species. T32 is scheduled for retention.
- 5.2.17 T33, T36 and T37, (Scot's Pine, *Pinus sylvestris* – category B), are semi-mature specimens located outside the Ancient Woodland designation. T36 and T37 have unbalanced crowns, due to suppression from adjacent trees. T33, T36 and T37 are satisfactory examples of the species. T33, T36 and T37, are scheduled for retention.
- 5.2.18 T34 and T35, (Scot's Pine, *Pinus sylvestris* – category A), are mature specimens located outside the Ancient Woodland designation. T34 and T35 are remarkable example of the species. T34 and T35 are scheduled for retention.
- 5.2.19 T38 and T39, (Beech, *Fagus sylvatica* – category A), are semi-mature specimens located outside the Ancient Woodland designation. T38 and T39 are remarkable example of the species. T34 and T35 are scheduled for retention.
- 5.2.20 T40, (Western Red Cedar, *Thuja plicata* – category A), is a semi-mature specimen located outside the Ancient Woodland designation. T40 is a satisfactory example of the species. T40 is scheduled for retention.
- 5.2.21 T41 and T42, (Beech, *Fagus sylvatica* – category B), are semi-mature specimens located outside the Ancient Woodland designation. T42 bifurcates at approximately 4m AGL; it has a weak union and included bark within the union. T41 and T42 are satisfactory examples of the species. T41 and T42 are scheduled for retention.
- 5.2.22 T43, (Silver Birch, *Betula pendula* – category C), is a semi-mature specimen located within the Ancient Woodland designation. T43 has a basal cavity & leans at approximately 10° off vertical. T43 is an unremarkable example of the species. T43 is scheduled for retention.
- 5.2.23 T44, (Silver Birch, *Betula pendula* – category B), is a semi-mature specimen located within the Ancient Woodland designation. T44 is a satisfactory example of the species. T44 is scheduled for retention.
- 5.2.24 T45 – T47 & T50, (Oak, *Quercus robur* – category A), are semi-mature specimens located within the Ancient Woodland designation. T45 trifurcates at approximately 1.5m AGL & T50 is multi-stemmed from ground level, (4 stems). T45 – T47 & T50 are remarkable examples of the species. T45 – T47 & T50 are scheduled for retention.
- 5.2.25 T48, (Oak, *Quercus robur* – category B), is a semi-mature specimen located within the Ancient Woodland designation. T48 trifurcates at approximately 1m AGL. T48 is a

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satisfactory example of the species. T48 is scheduled for retention.

- 5.2.26 T49, (Silver Birch, *Betula pendula* – category C), is a mature specimen located within the Ancient Woodland designation. T49 has significant basal decay & leans by approximately 10° off vertical. T49 is an unremarkable example of the species. T49 is scheduled for retention.
- 5.2.27 T51, (Scot's Pine, *Pinus sylvestris* – category A), is a semi-mature specimen located outside the Ancient Woodland designation. T51 is a remarkable example of the species. T51 is scheduled for retention.
- 5.2.28 T52, (Silver Birch, *Betula pendula* – category B), is a semi-mature specimen somewhat suppressed by adjacent trees & located outside the Ancient Woodland designation. T52 is a satisfactory example of the species. T52 is scheduled for retention.
- 5.2.29 T53, (Douglas Fir, *Pseudotsuga menziesii* – category A), is a mature specimen located outside the Ancient Woodland designation. T53 is a remarkable example of the species. T53 is scheduled for retention.
- 5.2.30 T54, (Douglas Fir, *Pseudotsuga menziesii* – category B), is a semi-mature specimen somewhat suppressed by adjacent trees & located outside the Ancient Woodland designation. T54 is a satisfactory example of the species. T54 is scheduled for retention.
- 5.2.31 T55 & T56, (Scot's Pine, *Pinus sylvestris* – category B), are semi-mature specimens located outside the Ancient Woodland designation. Both are ivy-clad & T56 bifurcates at approximately 3m AGL. T55 & T56 are satisfactory examples of the species. T55 & T56 are scheduled for retention.
- 5.2.32 T57, (Western Red Cedar, *Thuja plicata* – category A), is an over-mature specimen located outside the Ancient Woodland designation. T57 is a remarkable example of the species. T57 is scheduled for retention.
- 5.2.33 T58, T60 & T61, (Oak, *Quercus robur* – category B), are semi-mature specimens T58 is located outside the Ancient Woodland designation but T60 & T61 are located within the Ancient Woodland designation. T58 is heavily ivy-clad, T60 bifurcates at approximately 1m AGL & T61 trifurcates at GL – one of its stems is dead. T58, T60 & T61 are satisfactory examples of the species. T58, T60 & T61 are scheduled for retention.
- 5.2.34 T59, (Beech, *Fagus sylvatica* – category A), is a semi-mature specimen located outside the Ancient Woodland designation. T59 is multi-stemmed from approximately 1m AGL, (6 stems). T59 is a satisfactory example of the species. T59 is scheduled for retention.
- 5.2.35 T62 & T63, (Oak, *Quercus robur* – category A), is a semi-mature specimen located within the Ancient Woodland designation. T62 & T63 are remarkable example of the species. T62 & T63 are scheduled for retention.

- 5.2.36 T64, (Beech, *Fagus sylvatica* – category A), is a mature specimen located within the Ancient Woodland designation. T64 is a remarkable example of the species. T64 is scheduled for retention.
- 5.2.37 T65, (Holly, *Ilex aquifolium* – category A), is a semi-mature specimen located outside the Ancient Woodland designation. T65 is a remarkable example of the species. T65 is scheduled for retention.
- 5.2.38 T66 & T67, (Yew, *Taxus baccata* – category A), are semi-mature specimens; T66 is located outside the Ancient Woodland designation but T68 is located within the Ancient Woodland designation. T66 & T68 are remarkable examples of the species. T66 & T68 are scheduled for retention.
- 5.2.39 T69 – T72, (Scot's Pine, *Pinus sylvestris* – category A), are semi-mature specimens located outside the Ancient Woodland designation. T69 – T72 are remarkable example of the species. T69 – T72 are scheduled for retention.
- 5.2.40 T68, (Oak, *Quercus robur* – category B), is a mature specimen located within the Ancient Woodland designation. There are 2 areas of exposed heartwood at T68's basal region, (with lignified wood observed). T68 is a satisfactory example of the species. T68 is scheduled for retention.
- 5.2.41 T73, (Oak, *Quercus robur* – category A), is a semi-mature specimen located outside the Ancient Woodland designation & is somewhat suppressed by adjacent trees. T73 is a remarkable example of the species. T73 is scheduled for retention.
- 5.2.42 T74, (Holly, *Ilex aquifolium* – category A), is an over-mature specimen that bifurcates at approximately 1m AGL, (with co-dominant stems), and is located outside the Ancient Woodland designation. T74 is a remarkable example of the species. T74 is scheduled for retention.
- 5.2.43 T75, (Leyland Cypress, X *Cupressocyparis leylandii* – category A), is a semi-mature specimen located outside the Ancient Woodland designation. T75 is a remarkable example of the species. T75 is scheduled for retention.
- 5.2.44 G2, (Leyland Cypress, X *Cupressocyparis leylandii* – category B), is a group of 5 trees, 2 are small & suppressed & 3 are larger specimens. G2 is located outside the Ancient Woodland designation. G2 are satisfactory examples of the species. G2 is scheduled for retention.
- 5.2.45 T76, (Maple, *Acer* spp. – category A), is a mature specimen located outside the Ancient Woodland designation. T76 is a remarkable example of the species. T76 is scheduled for retention.
- 5.2.46 T77, (Lawson Cypress, *Cupressocyparis lawsoniana* – category C), is a semi-mature specimen which shows signs of dysfunction. T77 is located outside the Ancient Woodland designation. T77 is an unremarkable example of the species. T77 is scheduled for retention.

5.2.47 T78, (Lawson Cypress, *Cupressocyparis lawsoniana* – category B), is a semi-mature specimen located outside the Ancient Woodland designation. T78 is a satisfactory example of the species. T78 is scheduled for retention.

5.2.48 T79 – T81, ((Oak, *Quercus robur* – category A), are semi-mature specimens located outside the Ancient Woodland designation. T79 bifurcates at GL, T80 & T81 are ivy-clad. T79 – T81 are remarkable example of the species. T79 – T81 are scheduled for retention.

5.2.49 T82, (Silver Birch, *Betula pendula* – category B), is a semi-mature specimen located outside the Ancient Woodland designation. T82 is a satisfactory example of the species. T82 is scheduled for retention.

5.2.50 T83, (Scot's Pine, *Pinus sylvestris* – category A), is a mature specimen located outside the Ancient Woodland designation. T83 is remarkable example of the species. T83 is scheduled for retention.

5.2.51 The location of the trees & groups of trees and their associated constraints including canopy spread and root protection areas are illustrated on the Tree Constraints Plan at Appendix 2.

Table 2: Summary of Trees Surveyed

Retention Category	Individual Trees	Groups	Hedges	Totals
Category A (Trees of high quality with an estimated life expectancy of at least 40 years).	50	0	0	50
Category B (Trees of moderate quality with an estimated life expectancy of at least 20 years)	26	2	0	28
Category C (Trees of low quality with an estimated life expectancy of at least 10 years, or young trees with a stem diameter below 150mm).	5	0	0	5
Category U (Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years).	2	0	0	2
Totals	83	2	0	85

5.2.4 It should be noted that Table 1 of BS5837:2012 only gives recommendations in relation to remaining years. A tree may be considered to have a longer remaining life, however,

and still be considered to be of a lower category given its maturity, condition or overall impact to the application site.

- 5.2.5 In line with BS5837:2012, category A and B trees / groups of trees are considered as providing a substantial contribution to a site. Therefore, Category A and B trees should be retained and incorporated into the proposed development where possible and feasible.
- 5.2.6 Generally, category C and U trees / groups of trees are considered to be of low quality or are young specimens, which can be readily replaced, therefore, should not be considered a constraint to future development.
- 5.2.7 Retention of trees is considered desirable, wherever possible, as it ensures continuity of tree cover and provides a mature landscape to the proposed development.

6.0 Impact Appraisal

6.1 Overview

- 6.1.1 BS 5837:2012 provides a methodology for determining the above and below ground constraints presented by trees on and adjacent to the site. The RPA and canopy spreads of all trees and groups are shown in Appendix 1, (Tree Survey Schedule), and Appendix 2, (Tree Constraints Plan).
- 6.1.2 The Arboricultural Impact Assessment considers the development proposals and how they relate to the trees on the site. Any tree and design conflicts are highlighted, and possible remedial action suggested if appropriate. The proposed design is shown on the Tree Constraints Plan and Tree Removal and Protection Plan, (Appendix 2).

6.2 Tree Removal

- 6.2.1 The current outline design plan does not require the removal of any trees or groups of trees.

7.0 Below Ground Constraints

7.1 Root Protection Area

- 7.1.1 The below ground constraints are generally summarised as the root protection areas (RPAs). The RPA is an area equivalent to a circle with a radius of 12 times the diameter of the trees measured at 1.5 metres for single-stemmed trees. For trees with more than one stem, one of the two calculation methods should be used where there are either 2 - 5 stems or 5 or more stems. In all cases, the stem diameter(s) should be measured in accordance with Annex C, and the RPA should be guided from Annex D of BS5837:2012.

- 7.1.2 The RPA is an area in which no groundwork should be undertaken *without due care* in relation to the retained tree(s) and this is to avoid direct damage to the underground sections of the tree, (its roots), soil compaction, changes in levels or soil contamination which could alter the trees condition and / or stability. The shape of the RPA and its exact location will depend upon arboricultural considerations and ground conditions.
- 7.1.3 The RPA for the trees, groups of trees and hedgerows have been calculated as prescribed by BS5837:2012 and are shown as circles or polygons on the Tree Constraints Plan at Appendix 2. These plans illustrate the relationship between the RPAs associated with the trees and the proposed development.
- 7.1.4 In addition to the illustration of RPAs on the plans at Appendix 2, the numerical RPA values are provided within the Tree Schedule at Appendix 1. Within the schedule both RPA radius in metres from the main stem and total area for the RPA as square metres are shown.
- 7.1.5 The entire area of the proposed development is within the footprint of the existing dwelling and its immediate hard standing surrounds.

7.2 Existing RPA Incursions

- 7.2.1 There are a number of trees or groups of trees where the associated RPAs impact the design plan. These are T29, T53, T54, T57, T58, T59, T65, T79, T80, T81, T82 & T83. However, there are existing incursions into the RPA of all these retained trees. These are:
- The internal roadways of the Site, which are constituted of pea-shingle over compacted M.O.T. aggregate
 - Parts of the built structure & hard landscaping features of the residential dwelling and surrounding gardens.
 - Parts of the built structure of the outbuildings and their surrounding hard landscaping features
 - Hard landscaping surrounding the existing dwelling.
- 7.2.2 There are existing incursions into the RPAs of multiple other trees listed on the tree survey, which do not impact the design plan. As there is no impact on the design plan these are not listed here. The existing incursions are:
- The internal roadways of the Site, which are constituted of pea-shingle over compacted M.O.T. aggregate
 - Parts of the built structure of the outbuildings and their surrounding hard landscaping features.
 - Hard landscaping surrounding the existing dwelling.

7.3 New RPA Incursions required to implement the design proposal

- 7.3.1 In order to implement the design proposal no new incursions are required into the RPAs of any retained tree or groups of trees.

7.4 Proposed demolition works & level changes within the RPAs

- 7.4.1 In order to implement the design proposals, demolition works are required to remove the built structures of the existing dwelling and sections of the immediately adjacent hard standing.
- 7.4.2 For all demolition / construction works, any plant and machinery, if used, will be either be sited on existing hard standing or outside the RPA of the retained tree, group of trees or hedgerow. Any machines or plant which are sited on areas where pre-existing incursions exist within the RPA of any tree, group of trees or hedgerow must be of appropriate size and design so that no new incursions are accidentally created or damage occurs to the pre-existing hard surfacing because of the weight and dimensions of the machine, (thereby creating a potential compaction/contamination hazard).
- 7.4.3 There are no proposed level changes within the RPAs of any retained trees, groups of trees or hedgerows.
- 7.4.4 Any spoil created by excavation works will not be stored within the RPA of any retained trees or groups of trees. Ideally, spoil will be removed from the site contemporaneously as created.

7.5 Proposed construction of the new dwelling.

- 7.5.1 The construction of the proposed new dwelling does not impact on the RPAs of any retained trees or groups of trees.
- 7.5.2 Tree protection fencing will be erected beyond the extremities of RPAs of retained trees or groups of trees, (those parts which are unprotected by existing hard standing).
- 7.5.8 Tree protection fencing creates an impermeable barrier for the duration of the demolition and construction phases of the development. The areas inside the tree protection fencing are known as the Construction Exclusion Zones, (CEZs) No incursions into the CEZs are permitted.
- 7.5.9 Tree protection fencing must be erected prior to the commencement of active demolition and construction works and remain in situ until completion of the proposed development project.
- 7.5.10 Locations of tree protection fencing can be found on the Tree Retention and Protection

Plan at Appendix 2.

- 7.5.11 Specifications for the design of tree protection fencing and precautionary signage to be attached to this fencing can be found in Appendix 3.

7.6 Construction scaffolding

- 7.6.1 In order to implement the design proposal there is no requirement for new incursions into the RPAs of any retained tree or group of trees to facilitate the installation of scaffolding.

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7.7 Infrastructure

- 7.7.1 Due to the details provided for this application there is insufficient information relating to below ground infrastructure available at present to comment. If services need to enter RPAs the use of hand digging as detailed in the National Joint Utilities Group publication 'Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees' (NJUG 10, Volume 4, 2007) will be undertaken to minimise the impact on the tree roots.

8.0 Above Ground Constraints

- 8.1.1 The above ground constraints predominantly refer to the impact of the canopy of any retained tree on the Site either by size and form, shadowing and nuisance factors. As a result, it is sometimes required that a canopy protection zone is established to ensure it is not harmed during construction.
- 8.1.2 At present, there are above ground constraints which might impact the implementation of the design proposals – the canopy of T57, T59, T65, T79, T80 and T81 could impact both the construction and demolition phases of the development, due to the low height of the crowns of these trees. In order to remove this constraint, it will be necessary to lift selected branches of these trees to a height where there is no longer an impact on any delivery or construction vehicles which may be travelling underneath them, approximately 5m from ground level. Any crown lifting works must be compliant with BS:3998: 2010 – Tree work: recommendations.
- 8.1.3 Where the current and / or ultimate height of a Category A, B or C tree will cause an obstruction to the proposed development, this must be considered as a constraint. This is usually considered in terms of issues relating to shade and light. There are above ground constraints posed by the retained trees on the proposed development in this regard, but these are not considered significant because, in terms of shading, these trees already have an impact on the existing dwelling. As the new dwelling is to

be sited chiefly in the same location, these are not new constraints, and the Clients therefore will be used to and expecting these constraints.

8.2 Impact on Amenity

- 8.2.1 As there are no trees to be removed in order to implement the design proposal, there is no impact on amenity by the proposed development.

8.3 Future Growth

- 8.3.1 The future growth of the trees may have an impact on proposed new developments. Trees which are not fully mature, and which are in close proximity to new structures may become a nuisance to occupiers as they grow to their full extent, and therefore a pressure to limit such growth either through felling or pruning may develop.
- 8.3.2 As the new dwelling is to be sited in chiefly the same location, these are not new constraints, and the Clients therefore will be used to and expecting these constraints, from those trees which are close to the existing dwelling.

8.4 Leaves, Fruit and Honeydew

- 8.4.1 The leaves of retained trees will have little or no impact on the site or its users above and beyond the present impact they currently have. As the area is wooded, there is likely to be measures incorporated into the design plan to reduce / remove potential leaf blockages from guttering and drainage facilities.
- 8.4.2 Honeydew is most likely to be a significant problem from Lime and maple trees, (though not Japanese Maples) – there is one Male close to the proposed dwelling, but it does not overhang the proposed development location, this constraint is not considered to be significant or notable.

9.0 Conclusions

- 9.1.1 This tree assessment and AIA is prepared in relation to the full planning application and includes 84 trees and 2 groups of trees T1 – T83 and G1 & G2.
- 9.1.2 Wherever possible trees / hedgerows should be retained. In terms of the current site layout plan, there is conflict with four trees – these may need access facilitation pruning.
- 9.1.3 In order to implement the design proposal there is no requirement to fell / remove any trees.
- 9.1.4 In order to implement the design proposals there are no new incursions into the RPAs of any retained tree, group of trees or hedgerows.

- 9.1.5 In order to implement the design proposal there may be a requirement to instigate a crown lifting programme to sections of six trees, T57, T59, T65, T79, T80 & T81, utilising a 'tip' pruning methodology; this is not considered to be overly detrimental to the trees and is not considered to be a sufficient constraint as to jeopardise the viability of the design proposal. From a tree management perspective, it can be argued that the tips of the branches of which impact the design proposal should have been lifted in any event, as they encroach significantly & negatively into the space of the existing dwelling. If the dwelling had been maintained, this work would normally be considered routine maintenance.

10.0 Recommendations

- 10.1 The installation of tree protective fencing must occur prior to commencement of operations, in the location(s) shown on the TRPP.
- 10.2 Any unplanned incursions into the RPAs of retained trees must be immediately reported to the Project Arboriculturalist, who will attend the site to assess the potential impact of the unplanned incursion and decide whether to notify the Local Authority's specialist / Arboriculturalist.
- 10.3 No plant or machinery is to be used within 5m of any retained tree's root / stem junction.
- 10.4 The successful retention of those trees that remain on the Site is dependent upon the quality and maintenance of any protection system that is put in place. The accompanying, outline AMS, (below), demonstrates how the necessary tree protection strategies will be implemented and proposed mitigations will be effective.
- 10.5 An indicative draft Tree Retention and Protection Plan ('TRPP', at Appendix 2) is provided; however, this is subject to alteration following a final decision notice.
- 10.6 It is critical that all protective fencing is installed and erected, and the Construction Exclusion Zone, (CEZ), enforced prior to the commencement of any works on the Site. Following installation of tree protection, a Site meeting with the LPA's Tree Officer may be considered necessary to ensure satisfaction of all parties prior to any on-Site works commencing.
- 10.7 It is recommended that a suitable competent arboriculturist undertakes the site supervision and monitoring works – and be recognised as the Project Arboriculturalist.
- 10.8 In order for tree and root protection measures to work effectively all personnel associated with any demolition and construction processes must be familiar with the Tree Protection and Retention Plan.

11.0 Outline Arboricultural Method Statement

11.1 Scope of works

11.1.1 Installation of Tree Protection Fencing –

- I. Tree Protection Fencing is to be installed along the turquoise dashed line, as shown in the Tree Retention and Protection Plan, (see Appendix 2).
- II. Tree Protection Fencing is to be installed before any materials or machinery are brought onto the site, and before any demolition, excavation and development occurs. Once installed tree protection fencing is not to be removed or altered without prior recommendation by the project arboriculturist and, where necessary, approval from the local planning authority.
- III. Tree Protection Fencing is to be fit for the purpose of excluding demolition & construction activity and appropriate to the degree and proximity of work taking place around the retained tree/s / groups of trees. Barriers are to be maintained to ensure that they remain rigid and complete – for compliant specification of tree protection fencing, see Appendix 3.
- IV. Signs indicating the purpose of the fencing must be fixed to it and remain in situ for the duration of the proposed development.
- V. The areas within or beyond the tree protection fencing are designated as a Construction Exclusion Zone, (CEZ), where all demolition and construction activity is excluded, including storage of materials harmful chemicals, spoil or aggregates.

11.2 Phasing of works

11.2.1 Trees works associated with this mitigation project shall occur in the following order:

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Table 4: Phasing of works

Timescale	Task	Responsibility
Pre-development	Carry out access facilitation pruning to T57, T59, T65, T79, T80 and T81	To be arranged by the developer with a suitable arboricultural contractor, compliant with BS:3998
Pre-development	Erection of protective barriers as agreed and approved	To be arranged by developer, with sign off from project arboriculturalist
Pre-development	Carry out supervisory visit or remote inspection, (and report findings and recommendations if necessary / required)	To be arranged by developer, with sign off from project arboriculturalist – <u>LPA arboricultural officer must be given opportunity to attend.</u>
During demolition and construction phases of development	Carry out supervisory visits or remote inspections as agreed, (and report findings and recommendations if necessary / required)	To be arranged by developer, with project arboriculturalist
Post development	Phased removal of protective barriers	To be arranged by developer, with sign off from project arboriculturalist
Post development	Inspect retained / replanted trees and carry out remedial tree work, (if necessary)	To be arranged by developer, with sign off from project arboriculturalist and operations undertaken by arboricultural contractor, if required.

11.3 Arboricultural supervision

11.3.1 A pre-commencement meeting, (either in person or remotely, via suitable digital media), is to be held between the contractors and the project arboriculturalist. The LPAs arboricultural officer is to be given reasonable notice of the pre-commencement meeting so they may also attend. The purpose of the pre-commencement meeting shall be:

- To clarify the tree protection methodology with the site manager.
- To sign off that the tree protection barriers have been installed in the correct locations and to the agreed specification.

- 11.3.2 If significant root growth is disturbed during demolition / construction activities that are not within the scope of this report, the work must cease until the project arboriculturist is consulted. Roots greater than 25mm in diameter or dense / matted fibrous roots are considered significant root growth. It must be remembered that whilst RPAs are part of industry best practice, tree root growth is influenced by a number of factors and may not conform to expected ideals.
- 11.3.3 No machinery, materials or temporary site buildings are to be stored within the RPAs of any retained trees or hedgerows, unless it is on the pre-existing hard surfacing.
- 11.3.4 No corrosive materials or chemicals which dissolve in water are to be stored within the RPAs of any retained trees.
- 11.3.6 If at any time during the demolition / construction process, damage is inadvertently caused to a tree, the project arboriculturist must be notified to assess the likely implications and to prescribe potential remedial measures. Damage can be in the form of chemical or fuel spillage, mechanical damage to either the above ground parts of the tree or the roots, fire or any other unforeseen circumstance

12.0 References

- 11.1.1 British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendation'.
- 11.1.2 British Standard 3998:2010 'Tree work – Recommendations'.
- 11.1.3 BS8545:2014 Trees: 'From nursery to independence in the landscape – Recommendations'.
- 11.1.4 The Forestry Act 1967.
- 11.1.5 The Town and Country Planning Act 1990.
- 11.1.6 The Town and Country Planning (Tree Preservation) (England) Regulations 2012.
- 11.17 APN 12, Through the Trees to Development, Arboricultural Advisory and Information Service. Derek Patch and Ben Holding.

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12.0 Appendices:

- Appendix 1: Schedules
- Appendix 2: Plans
- Appendix 3: Tree Protection
- Appendix 4: Screenshots relevant to the proposed development
- Appendix 5: Report Limitations
- Appendix 6: Arboricultural Survey: methodologies
- Appendix 7: Summary of author's qualifications and experience

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Appendix 1: Schedules

Schedule 1: Cascade chart for tree quality assessment:

Table 1 - Cascade Chart for Tree Quality Assessment

Table 1 - Cascade Chart for Tree Quality Assessment				
Category and Definition	Criteria (including subcategories where appropriate)			Identification on Plan
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	- Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning); - Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline; and/or - Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <i>NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7</i>			Dark Red 
Trees to be considered for retention				
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that Are essential components of groups or formal or semiformal arboricultural features (e.g. the dominant and/or principal trees within an avenue).	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features.	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g., veteran trees or wood-pasture).	Light Green 
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation.	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.	Trees with material conservation or other cultural value.	Mid Blue 
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value.	Grey 

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Schedule 2: BS:5837 Tree Survey:

Client Name: Mr & Mrs Roff
Site: The Brook, Cuttinglye Road, Crawley Down, RH10 4LR
Tags: n / a
Ref: Full planning application

Consultant: N. Eddison
Survey Date: 09/07/2025

Tree No.	Species	Common name	Height (m)	DBH (mm)	Crown Spread (North)	Crown Spread (East)	Crown Spread (South)	Crown Spread (West)	Crown Height AGL	Root Protection Area Radius (m)	Root Protection Area (m ²)	Age	Bat habitat potential	Condition	Risk	Category	Remedial Recommendations	Notes
T1	<i>Quercus robur</i>	Oak	17	439	2	6	6	4	17	5.27	87.18	Semi-mature	Low	Fair	Low	B2	NWR	Immediately adjacent to & touching asbestos shed
T2	<i>Quercus robur</i>	Oak	17	445	2	4	4	2	8	5.34	89.58	Semi-mature	Low	Fair	Low	B2	NWR	
T3	<i>Ilex aquifolium</i>	Holly	10	398	3	3	3	3	1.5	4.78	71.66	Semi-mature	Low	Good	Low	B2	NWR	Co-dominant stems
T4	<i>Quercus robur</i>	Oak	18	644	8	8	8	8	8	7.73	187.62	Mature	Medium	Good	Low	A2	NWR	Trifurcates at approx 1m AGL
T5	<i>Quercus robur</i>	Oak	17	418	6	6	6	6	12	5.02	79.04	Semi-mature	Low	Good	Low	A2	NWR	
T6	<i>Quercus robur</i>	Oak	18	595	8	8	8	8	14	7.14	160.16	Semi-mature	Low	Good	Low	A2	NWR	
T7	<i>Quercus robur</i>	Oak	18	475	6	6	6	6	10	5.70	102.07	Semi-mature	Low	Good	Low	A2	NWR	
T8	<i>Quercus robur</i>	Oak	15	282	2	2	2	2	15	3.38	35.98	Semi-mature	Low	Good	Low	A2	NWR	
T9	<i>Quercus robur</i>	Oak	20	574	8	8	8	8	14	6.89	149.05	Semi-mature	Low	Good	Low	A2	NWR	
T10	<i>Quercus robur</i>	Oak	17	416	4	3	7	5	16	4.99	78.29	Semi-mature	Low	Good	Low	A2	NWR	
T11	<i>Quercus robur</i>	Oak	20	542	6	8	8	6	12	6.50	132.90	Semi-mature	Low	Good	Low	A2	NWR	
T12	<i>Pinus sylvestris</i>	Scot's Pine	20	489	6	6	6	1	20	5.87	108.18	Mature	Low	Good	Low	A2	NWR	
T13	<i>Pinus sylvestris</i>	Scot's Pine	20	597	6	1	6	6	17	7.16	161.24	Mature	Low	Good	Low	A2	NWR	
T14	<i>Pseudotsuga menziesii</i>	Douglas Fir	25	757	6	4	4	4	19	9.08	259.24	Mature	Low	Good	Low	A2	NWR	

The Brook, Cuttinglye Road, Crawley Down, RH10 4LR

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Tree No.	Species	Common name	Height (m)	DBH (mm)	Crown Spread (North)	Crown Spread (East)	Crown Spread (South)	Crown Spread (West)	Crown Height AGL	Root Protection Area Radius (m)	Root Protection Area (m²)	Age	Bat habitat potential	Condition	Risk	Category	Remedial Recommendations	Notes
T15	<i>Pinus sylvestris</i>	Scot's Pine	15	365	0	5	3	3	12	4.38	60.27	Semi-mature	Low	Fair	Low	B2	NWR	Somewhat suppressed by adjacent trees
T16	<i>Pseudotsuga menziesii</i>	Douglas Fir	26	776	8	8	8	8	18	9.31	272.42	Mature	Low	Good	Low	A2	NWR	
T17	<i>Chamaecyparis lawsoniana</i>	Lawson Cypress	13	315	3	3	3	3	2	3.78	44.89	Semi-mature	Low	Fair	Low	B2	NWR	
T18	<i>Chamaecyparis lawsoniana</i>	Lawson Cypress	13	321	4	4	4	4	0	3.85	46.61	Semi-mature	Low	Fair	Low	B2	NWR	
T19	<i>Chamaecyparis lawsoniana</i>	Lawson Cypress	13	320	4	4	4	4	0	3.84	46.32	Semi-mature	Low	Fair	Medium	B2	NWR	Trifurcates at approx 1.5m AGL
T20	<i>Pseudotsuga menziesii</i>	Douglas Fir	35	895	6	6	4	4	2	10.74	362.38	Mature	Low	Good	Low	A2	NWR	
T21	<i>Pinus sylvestris</i>	Scot's Pine	18	488	6	4	0	0	6	5.86	107.73	Dead Specimen	Medium	Dead	High	Unclassified	Fell to as near to ground level as is possible	Dead, ivy-clad
T22	<i>Pinus sylvestris</i>	Scot's Pine	18	465	2	3	2	1	19	5.58	97.82	Mature	Medium	Poor	Medium	C2	Sever and remove a 300mm section of ivy from around the tree's entire circumference at base	Ivy-clad
T23	<i>Pinus sylvestris</i>	Scot's Pine	20	560	7	8	6	8	18	6.72	141.87	Mature	Low	Good	Low	A2	Sever and remove a 300mm section of ivy from around the tree's entire circumference at base	Ivy-clad
T24	<i>Quercus robur</i>	Oak	20	987	8	8	8	8	16	11.84	440.70	Mature	Medium	Good	Low	A2	Sever and remove a 300mm section of ivy from around the tree's entire circumference at base	Bifurcates at approx 1m AGL; ivy-clad
T25	<i>Pseudotsuga menziesii</i>	Douglas Fir	20	517	6	6	6	6	2	6.20	120.92	Semi-mature	Low	Good	Low	A2	NWR	
T26	<i>Pseudotsuga menziesii</i>	Douglas Fir	26	667	7	7	7	7	11	8.00	201.26	Mature	Low	Good	Low	A2	NWR	

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Tree No.	Species	Common name	Height (m)	DBH (mm)	Crown Spread (North)	Crown Spread (East)	Crown Spread (South)	Crown Spread (West)	Crown Height AGL	Root Protection Area Radius (m)	Root Protection Area (m²)	Age	Bat habitat potential	Condition	Risk	Category	Remedial Recommendations	Notes
T27	<i>Pseudotsuga menziesii</i>	Douglas Fir	26	720	7	7	7	7	12	8.64	234.52	Mature	Low	Good	Low	A2	NWR	
T28	<i>Pseudotsuga menziesii</i>	Douglas Fir	15	454	5	2	5	2	4	5.45	93.24	Semi-mature	Low	Good	Low	B2	NWR	
T29	<i>Pseudotsuga menziesii</i>	Douglas Fir	26	1008	8	8	6	8	1	12.10	459.66	Mature	Low	Good	Low	A2	NWR	Somewhat suppressed by adjacent trees
T30	<i>Pseudotsuga menziesii</i>	Douglas Fir	35	612	7	8	4	0	2.5	7.34	169.44	Semi-mature	Low	Fair	Low	B2	Sever and remove a 300mm section of ivy from around the tree's entire circumference at base	Suppressed by adjacent tree; leans away from neighbour from approx 10m up; ivy-clad
T31	<i>Pinus sylvestris</i>	Scot's Pine	15	236	1	0	0	0	11	2.83	25.20	Dead Specimen	High	Dead	Medium	Unclassified	Fell to as near to ground level as is possible	
T32	<i>Pinus sylvestris</i>	Scot's Pine	15	314	4	2	0	0	10	3.77	44.60	Semi-mature	Low	Poor	Medium	C2	NWR	Sparse foliage due to suppression from adjacent trees
T33	<i>Pinus sylvestris</i>	Scot's Pine	15	377	2	2	2	2	9	4.52	64.30	Semi-mature	Low	Fair	Low	B2	NWR	
T34	<i>Pinus sylvestris</i>	Scot's Pine	25	513	3	3	5	3	19	6.16	119.05	Mature	Low	Good	Low	A2	NWR	
T35	<i>Pinus sylvestris</i>	Scot's Pine	25	537	5	3	5	5	19	6.44	130.46	Mature	Low	Good	Low	A2	NWR	
T36	<i>Pinus sylvestris</i>	Scot's Pine	15	385	3	0	3	3	19	4.62	67.06	Semi-mature	Low	Good	Low	B2	NWR	Unbalanced crown due to suppression from adjacent trees
T37	<i>Pinus sylvestris</i>	Scot's Pine	15	348	0	0	3	2	18	4.18	54.79	Semi-mature	Low	Fair	Low	B2	NWR	Unbalanced crown due to suppression from adjacent trees
T38	<i>Fagus sylvatica</i>	Beech	17	568	8	8	8	8	2	6.82	145.95	Semi-mature	Low	Good	Low	A2	NWR	
T39	<i>Fagus sylvatica</i>	Beech	15	489	8	8	7	5	3	5.87	108.18	Semi-mature	Low	Good	Low	A2	NWR	
T40	<i>Thuja plicata</i>	Western Red Cedar	17	378	4	4	4	4	0	4.54	64.64	Semi-mature	Low	Good	Low	A2	NWR	

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Tree No.	Species	Common name	Height (m)	DBH (mm)	Crown Spread (North)	Crown Spread (East)	Crown Spread (South)	Crown Spread (West)	Crown Height AGL	Root Protection Area Radius (m)	Root Protection Area (m²)	Age	Bat habitat potential	Condition	Risk	Category	Remedial Recommendations	Notes
T41	<i>Fagus sylvatica</i>	Beech	15	400	2	4	9	4	5	4.80	72.38	Semi-mature	Low	Good	Low	B2	NWR	Unbalanced crown due to suppression from adjacent trees
G1	<i>Chamaecyparis lawsoniana</i>	Lawson Cypress	17	450	3	3	3	3	4	5.40	91.61	Semi-mature	Low	Fair	Low	B2	NWR	All specimens are ivy-clad
T42	<i>Fagus sylvatica</i>	Beech	17	544	6	6	6	6	8	6.53	133.88	Semi-mature	Low	Fair	Low	B2	NWR	Bifurcates at approx 4m AGL; weak union with included bark
T43	<i>Betula pendula</i>	Silver Birch	14	245	2	2	2	2	3	2.94	27.15	Semi-mature	Low	Poor	Medium	C2	NWR	Basal cavity; leans at approx 10° off vertical due to suppression from adjacent tree
T44	<i>Betula pendula</i>	Silver Birch	14	474	4	4	4	4	6	5.69	101.64	Mature	Low	Fair	Low	B2	NWR	
T45	<i>Quercus robur</i>	Oak	18	733	7	7	7	3	3	8.80	243.06	Semi-mature	Low	Good	Low	A2	NWR	Trifurcates at approx 1.5m AGL
T46	<i>Quercus robur</i>	Oak	18	601	4	7	8	2	10	7.21	163.40	Semi-mature	Low	Good	Low	A2	NWR	
T47	<i>Quercus robur</i>	Oak	18	532	7	7	7	6	2	6.38	128.04	Semi-mature	Low	Good	Low	A2	NWR	
T48	<i>Quercus robur</i>	Oak	17	769	10	10	10	10	10	9.23	267.53	Semi-mature	Medium	Fair	Low	B2	NWR	Trifurcates at approx 1m AGL; large wound evident on western stem
T49	<i>Betula pendula</i>	Silver Birch	16	492	4	4	0	1	3	5.90	109.51	Mature	Low	Poor	Medium	C2	Sever and remove a 300mm section of ivy from around the tree's entire circumference at base; consider felling	Significant basal decay observed on opposite side to significant lean (approx 10° off vertical).
T50	<i>Quercus robur</i>	Oak	15	600	6	4	4	4	5	7.20	162.86	Semi-mature	Low	Good	Low	A2	NWR	Multi-stemmed from GL, (4)
T51	<i>Pinus sylvestris</i>	Scot's Pine	12	237	2	2	2	1	5	2.84	25.41	Semi-mature	Low	Good	Low	A2	NWR	
T52	<i>Betula pendula</i>	Silver Birch	16	432	3	3	3	3	5	5.18	84.43	Semi-mature	Low	Good	Low	B2	NWR	Somewhat suppressed by adjacent trees
T53	<i>Pseudotsuga menziesii</i>	Douglas Fir	18	690	5	6	4	5	9	8.28	215.38	Mature	Low	Good	Low	A2	Sever and remove a 300mm section of ivy from around the tree's entire circumference at base	
T54	<i>Pseudotsuga menziesii</i>	Douglas Fir	15	475	6	6	2	4	4	5.70	102.07	Semi-mature	Low	Good	Low	B2	Sever and remove a 300mm section of ivy from around the tree's entire circumference at base	Somewhat suppressed by adjacent tree

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Tree No.	Species	Common name	Height (m)	DBH (mm)	Crown Spread (North)	Crown Spread (East)	Crown Spread (South)	Crown Spread (West)	Crown Height AGL	Root Protection Area Radius (m)	Root Protection Area (m²)	Age	Bat habitat potential	Condition	Risk	Category	Remedial Recommendations	Notes
T55	<i>Pinus sylvestris</i>	Scot's Pine	20	441	2	2	2	2	12	5.29	87.98	Semi-mature	Low	Fair	Low	B2	Sever and remove a 300mm section of ivy from around the tree's entire circumference at base	Ivy-clad
T56	<i>Pinus sylvestris</i>	Scot's Pine	20	704	3	3	3	3	11	8.45	224.21	Semi-mature	Low	Fair	Low	B2	Sever and remove a 300mm section of ivy from around the tree's entire circumference at base	Ivy-clad; bifurcates at approx 3m AGL
T57	<i>Thuja plicata</i>	Western Red Cedar	25	1429	6	6	6	6	0	17.15	923.80	Over-mature	Low	Good	Low	A2	NWR	
T58	<i>Quercus robur</i>	Oak	18	750	3	6	8	6	2	9.00	254.47	Mature	Low	Fair	Medium	B2	Sever and remove a 300mm section of ivy from around the tree's entire circumference at base	Heavily ivy-clad
T59	<i>Fagus sylvatica</i>	Beech	8	681	6	2	6	6	1	8.17	209.80	Semi-mature	Low	Good	Low	A2	NWR	Multi-stemmed from approx 1m AGL, (6)
T60	<i>Quercus robur</i>	Oak	20	520	6	5	2	6	6	6.24	122.33	Semi-mature	Low	Fair	Low	B2	NWR	Bifurcates at approx 1m AGL
T61	<i>Quercus robur</i>	Oak	20	636	6	6	6	6	8	7.63	182.99	Semi-mature	Low	Fair	Low	B2	NWR	Trifurcates at GL, 1 stem is dead
T62	<i>Quercus robur</i>	Oak	20	751	6	6	8	8	18	9.01	255.15	Semi-mature	Low	Good	Low	A2	NWR	
T63	<i>Quercus robur</i>	Oak	20	700	8	8	8	8	10	8.40	221.67	Semi-mature	Low	Good	Low	A2	NWR	
T64	<i>Fagus sylvatica</i>	Beech	20	678	8	8	8	8	2	8.14	207.96	Mature	Low	Good	Low	A2	NWR	
T65	<i>Ilex aquifolium</i>	Holly	6	361	4	4	4	4	1	4.33	58.96	Semi-mature	Low	Good	Low	A2	NWR	
T66	<i>Taxus baccata</i>	Yew	5	277	4	4	4	4	1.5	3.32	34.71	Semi-mature	Low	Good	Low	A2	NWR	
T67	<i>Taxus baccata</i>	Yew	12	358	6	6	6	6	1	4.30	57.98	Semi-mature	Low	Good	Low	A2	NWR	
T68	<i>Quercus robur</i>	Oak	18	797	10	7	7	7	2	9.56	287.36	Mature	Medium	Fair	Low	B2	NWR	2 areas of heartwood exposed at basal region, lignified wood observed

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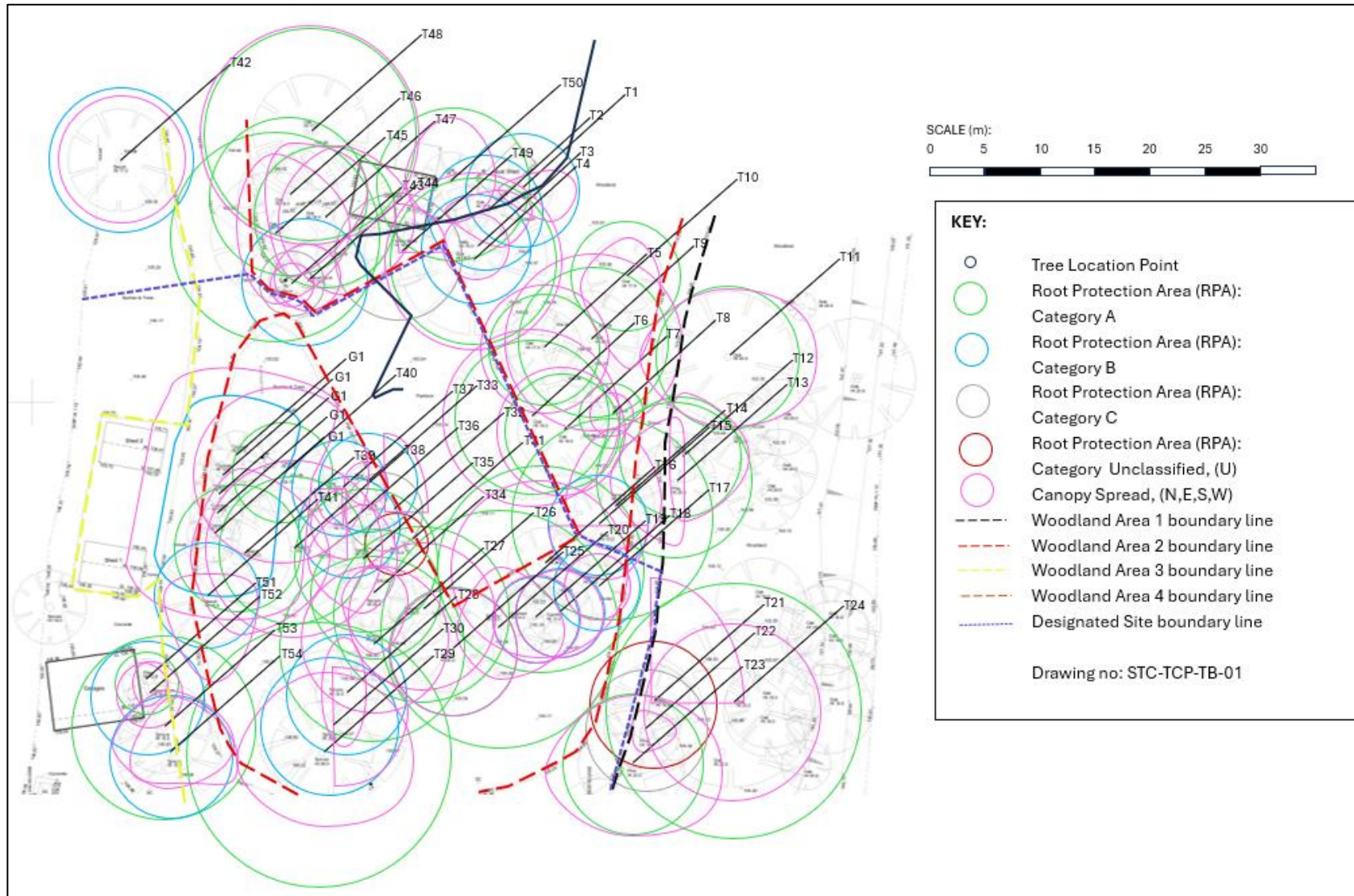
Tree No.	Species	Common name	Height (m)	DBH (mm)	Crown Spread (North)	Crown Spread (East)	Crown Spread (South)	Crown Spread (West)	Crown Height AGL	Root Protection Area Radius (m)	Root Protection Area (m²)	Age	Bat habitat potential	Condition	Risk	Category	Remedial Recommendations	Notes
T69	<i>Pinus sylvestris</i>	Scot's Pine	18	415	3	4	4	3	10	4.98	77.91	Semi-mature	Low	Good	Low	A2	NWR	
T70	<i>Pinus sylvestris</i>	Scot's Pine	18	531	3	3	4	5	18	6.37	127.56	Semi-mature	Low	Good	Low	A2	NWR	
T71	<i>Pinus sylvestris</i>	Scot's Pine	18	538	2	5	5	5	18	6.46	130.94	Semi-mature	Low	Good	Low	A2	NWR	
T72	<i>Pinus sylvestris</i>	Scot's Pine	18	503	5	5	5	5	18	6.04	114.46	Semi-mature	Low	Good	Low	A2	NWR	
T73	<i>Quercus robur</i>	Oak	18	654	4	5	6	6	1	7.85	193.49	Semi-mature	Low	Good	Low	A2	NWR	Somewhat suppressed by adjacent trees
T74	<i>Ilex aquifolium</i>	Holly	15	814	5	5	5	5	1	9.77	299.75	Over-mature	Medium	Good	Low	A2	NWR	Bifurcates at approx 1m AGL, co-dominant stems
T75	<i>X Cupressocyparis leylandii</i>	Leyland Cypress	15	374	2	2	2	2	1.5	4.49	63.28	Semi-mature	Low	Good	Low	A2	NWR	
G2	<i>X Cupressocyparis leylandii</i>	Leyland Cypress	17	557	4	4	4	4	2	6.68	140.35	Semi-mature	Low	Fair	Low	B2	NWR	Group of 5 trees, 2 are small & suppressed, 3 are larger
T76	<i>Acer</i> spp.	Maple	8	356	6	6	6	6	1	4.27	57.33	Mature	Low	Good	Low	A2	NWR	
T77	<i>Chamaecyparis lawsoniana</i>	Lawson Cypress	20	630	3	3	3	3	1	7.56	179.55	Semi-mature	Medium	Fair	Low	C2	NWR	Shows signs of dysfunction
T78	<i>Chamaecyparis lawsoniana</i>	Lawson Cypress	14	336	3	3	3	3	1	4.03	51.07	Semi-mature	Low	Fair	Low	B2	NWR	
T79	<i>Quercus robur</i>	Oak	16	671	8	8	8	8	3	8.05	203.68	Semi-mature	Medium	Fair	Low	A2	NWR	Bifurcates at GL
T80	<i>Quercus robur</i>	Oak	18	550	6	6	6	6	2	6.60	136.85	Semi-mature	Low	Fair	Low	A2	Sever and remove a 300mm section of ivy from around the tree's entire circumference at base	Ivy-clad
T81	<i>Quercus robur</i>	Oak	18 (E)	570	6	6	6	6	2	6.84	146.98	Semi-mature	Low	Fair	Low	A2	Sever and remove a 300mm section of ivy from around the tree's entire circumference at base	Ivy-clad

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Tree No.	Species	Common name	Height (m)	DBH (mm)	Crown Spread (North)	Crown Spread (East)	Crown Spread (South)	Crown Spread (West)	Crown Height AGL	Root Protection Area Radius (m)	Root Protection Area (m²)	Age	Bat habitat potential	Condition	Risk	Category	Remedial Recommendations	Notes
T82	<i>Betula pendula</i>	Silver Birch	18 (E)	552	4	4	4	4	4	6.62	137.84	Mature	Medium	Fair	Low	B2	NWR	
T83	<i>Pinus sylvestris</i>	Scot's Pine	23 (E)	564	5	5	5	5	17	6.77	143.90	Mature	Low	Good	Low	A2	NWR	

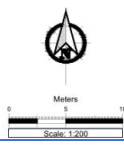
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Appendix 2: Plans – Tree Constraints Plan:



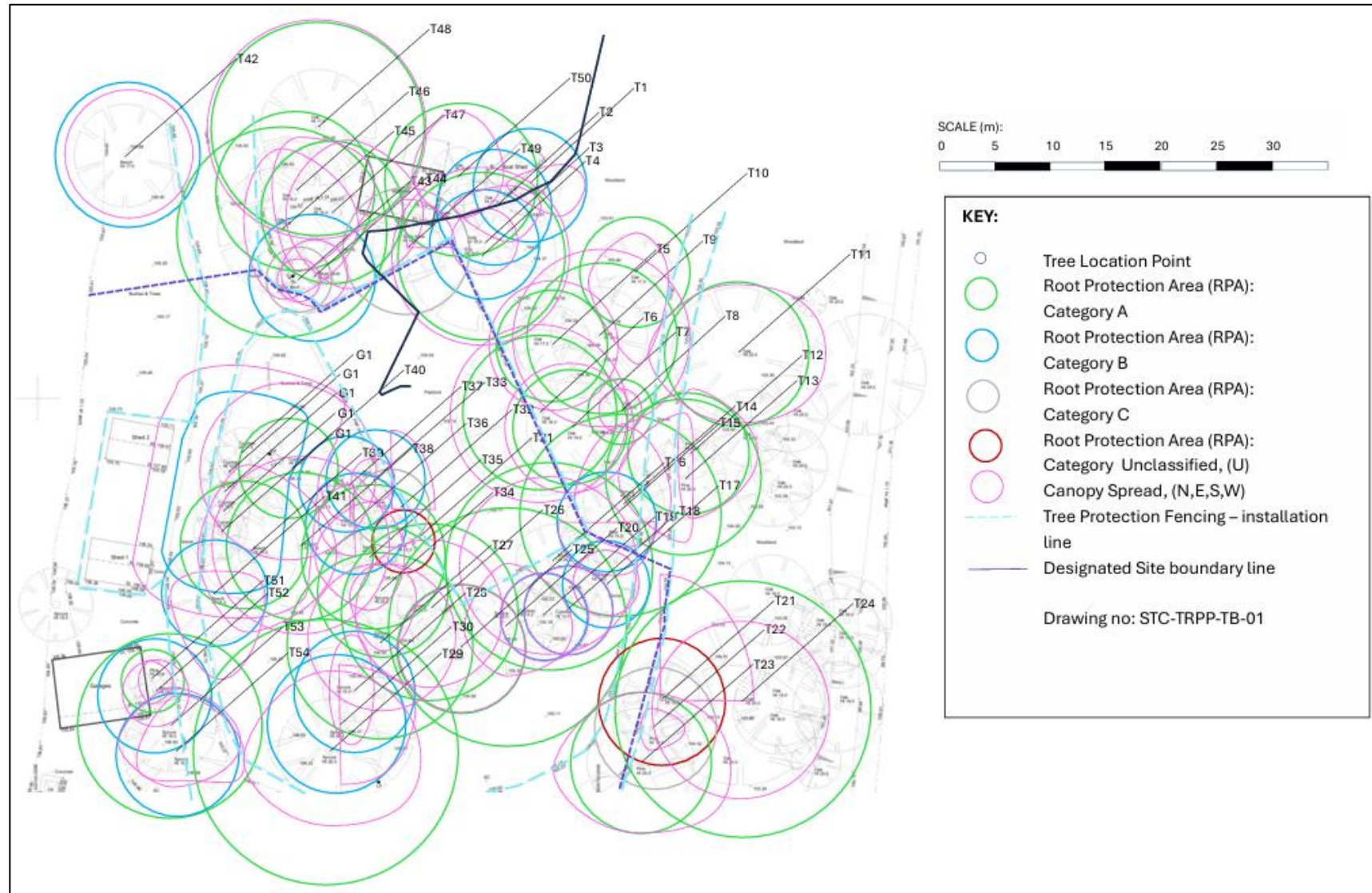
A close-up photograph of several vibrant green leaves, likely from a tree or shrub, filling the background. The leaves are in sharp focus, showing detailed vein patterns. The lighting is bright and natural, creating a fresh and organic feel.

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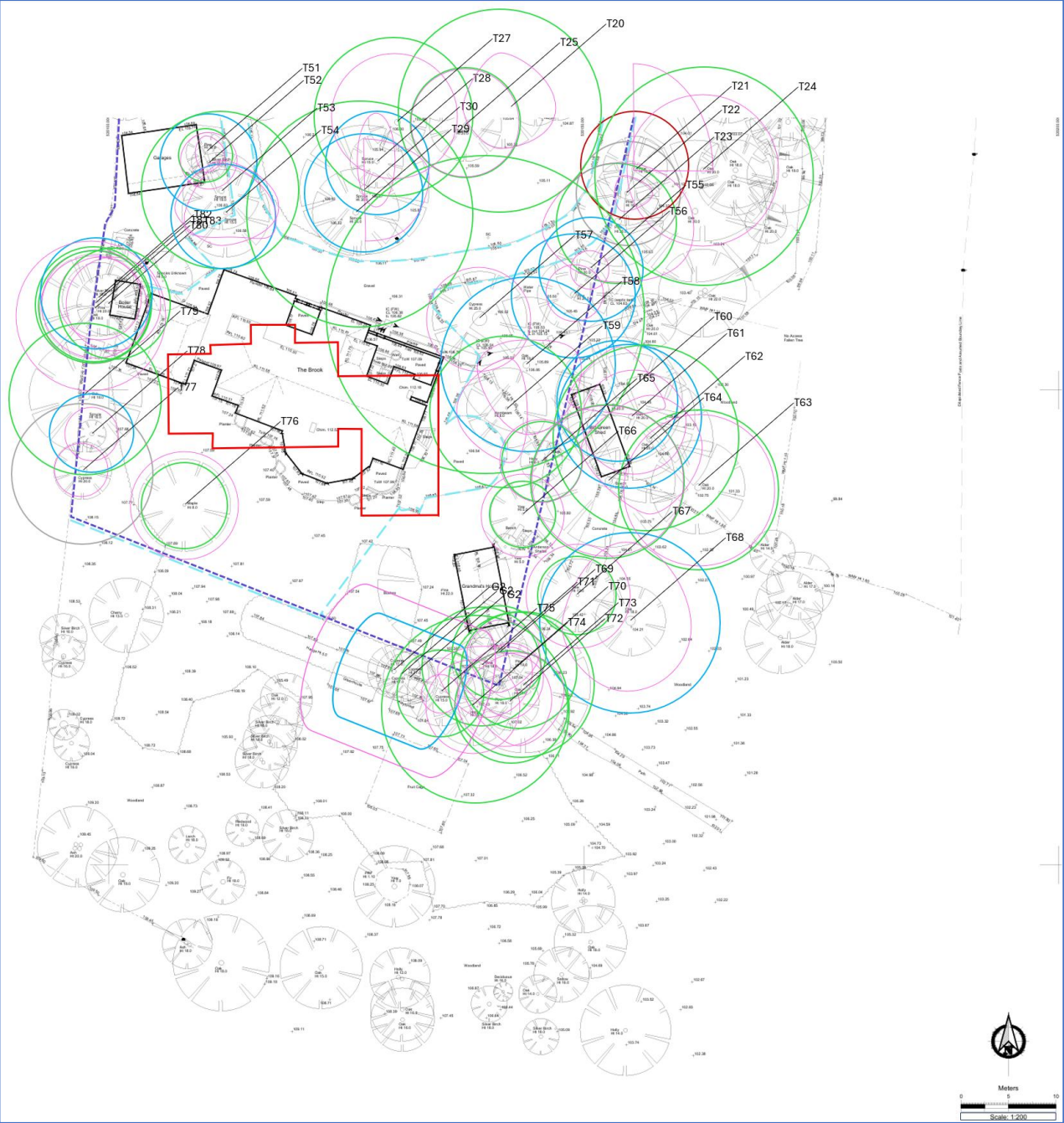


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Appendix 2: Plans – Tree Retention and Protection Plan:



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Appendix 2: Plans – Topographical Plan, (existing dwelling):



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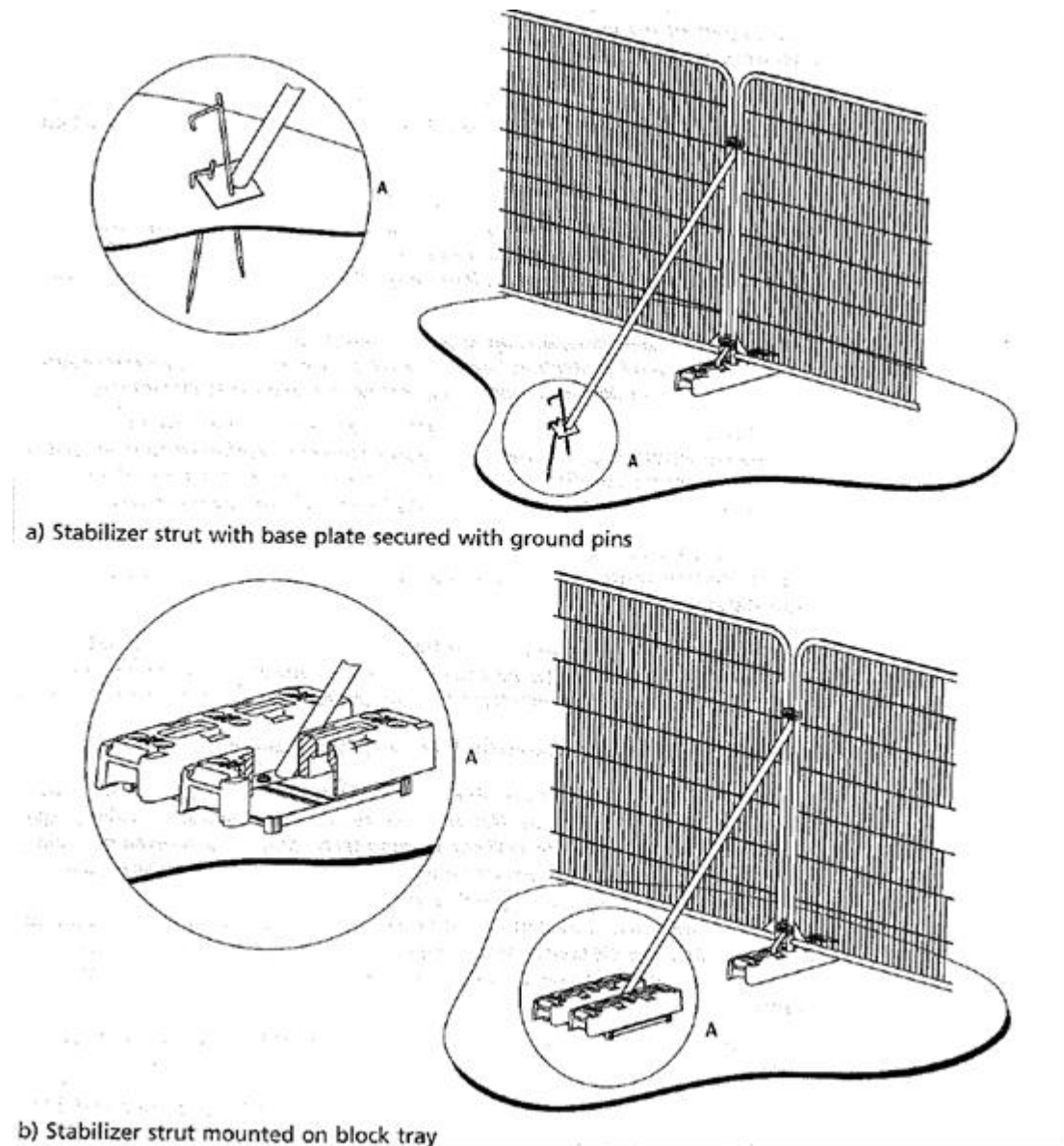


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Appendix 3 Tree Protection:

Tree Protection Fencing – specifications:

BS5837 Recommended protective barrier (Fence A-Herras type fence)



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Tree Protection Fencing – signage:

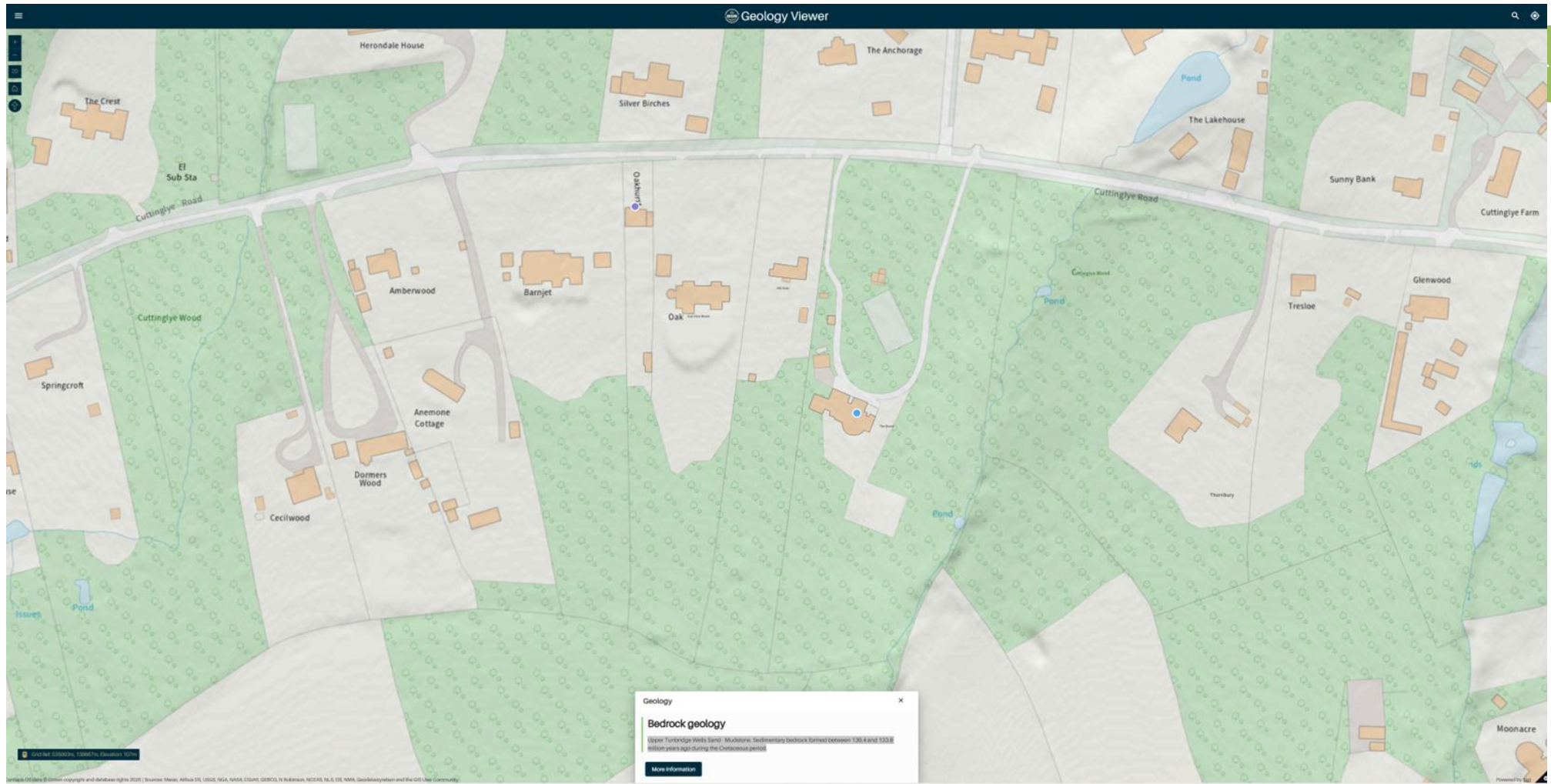


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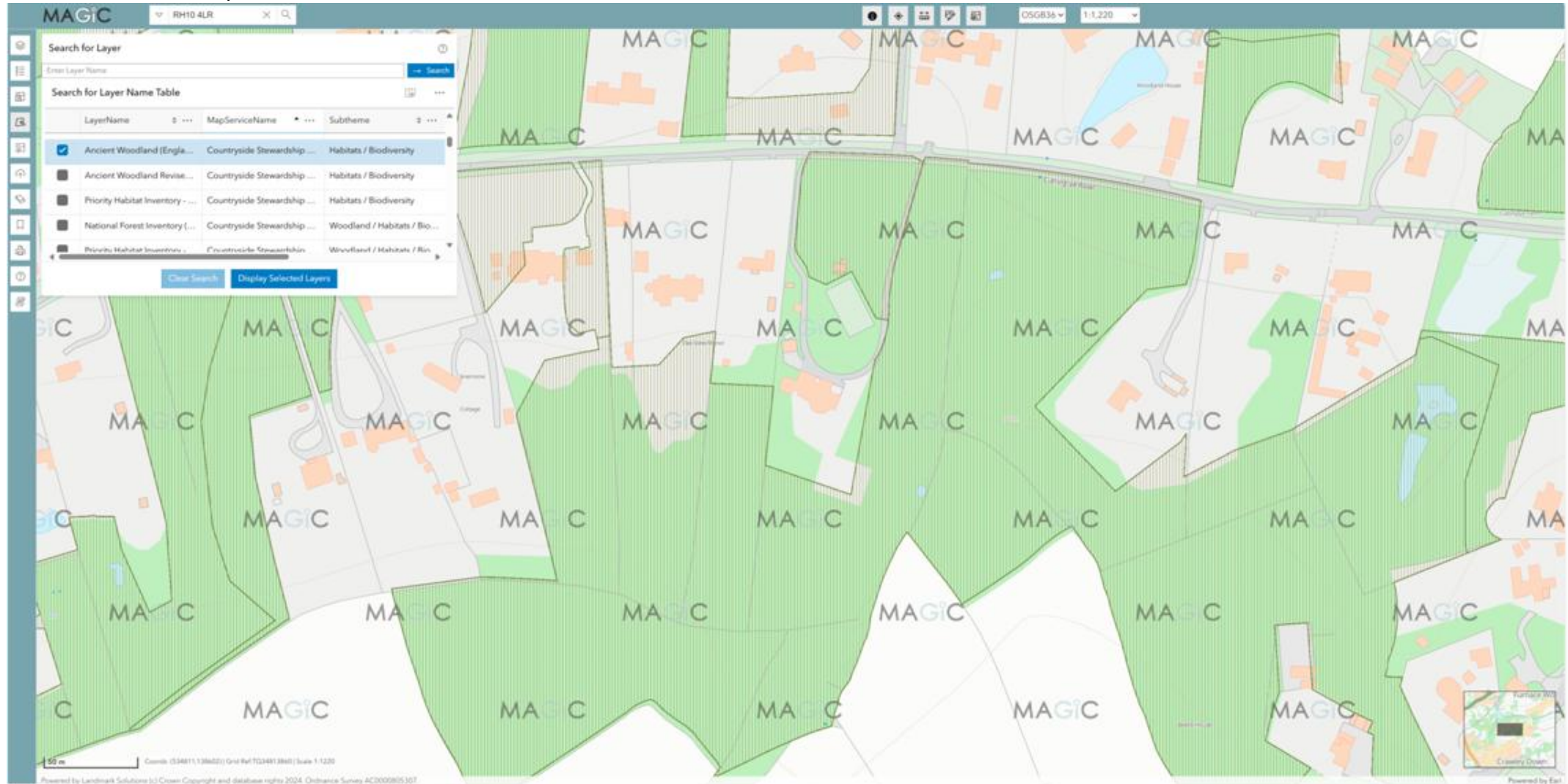
Appendix 4: Screenshots relevant to the proposed development: BGS Underlying Geology:



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MAGIC Map Screenshot:



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LPA's online TPO checker Screenshot:

The Brook – Mid Sussex District Council TPO Checker Map Screenshot – July 2025



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Appendix 5: Report Limitations, (1.5.2 – 1.5.19)

- 1.5.2 The observations, assessments and analyses made are valid from the time of inspection. These, and any recommendations made, are subjected to the timescales detailed elsewhere in this report, applicable from time of surveying.
- 1.5.3 This is an arboricultural report and as such no reliance should be given to comments relating to buildings, engineering or soil.
- 1.5.4 This is not an arboricultural health and safety survey, a more detailed survey of internal decay detection etc. can be supplied but would be subject to a further fee.
- 1.5.5 This is a report which accompanies a planning application and provides no detail specifically in relation to the health and safety of the trees.
- 1.5.6 This report does not comment on the effects of surveyed trees in relation to any issues of subsidence or heave.
- 1.5.7 The analysis of the tree's / trees' status and assessments of condition, (in this report), are valid for 12 months from the date of site-survey. Any appraisals, and conclusions based thereon, will be invalidated and need reviewing in the event of material change/s to the site or site usage which result in any impact to the trees, (including their rooting zones), from the time of site-surveying, however minor. Consultation with The Sussex Tree Company, (STC), will be necessary, for clarification purposes, if there is any doubt as to whether any such changes materially affect the trees.
- 1.5.8 Formal assessment of topography, drainage, service conduits, soil conditions and the like are outside the scope of this report. If topographical surveying for the development project has been undertaken, the results of this have not been shared with STC. Existing Topographical Surveys & Proposed Site Plans were provided to STC by the Clients / Clients representatives.
- 1.5.9 Other specialist arboricultural surveys (e.g., root collar examination or sonic tomography) have not been made and are beyond the scope of this report.
- 1.5.10 Specific laboratory investigations of soil properties (plasticity index, moisture content, suction pressure) have not been made and are beyond the scope of this report.
- 1.5.11 Where further inspections of particular trees, (or features of trees), are made as recommendations in this report, an additional or updated report must be submitted following these inspections; either as a new report or part of a re-edit of the comprehensive report. The findings for the re-inspected trees are **only** valid for 12 months from the time of re-inspection. Any inspections are chargeable.
- 1.5.12 Trees are growing dynamic structures. Whilst reasonable effort is made to identify

defects within the trees inspected, no guarantee can be given as to the absolute safety or otherwise of any individual tree. No tree is ever absolutely safe due to the unpredictable laws and forces of nature. As a result of this, natural failure of intact trees will occur; extreme climatic conditions can cause damage to even apparently healthy trees.

- 1.5.13 Trees are living organisms and as such are subject to change through the natural occurrence of growth, maturation and senescence – as well as in response to naturally occurring events outside of human control and influence. When the inspected tree/s experience naturally occurring events materially affecting their status, the findings in this report will be invalidated; re-inspection may be necessary to meet the thresholds for duty-of-care liabilities. Such events can be, (but are not limited to): strong, storm winds; extremely heavy, sustained and unusual rainfall resulting in sustained waterlogging of rooting zones; significant periods of drought/low rainfall; or heavy, settled snowfall. Any re-inspections are chargeable.
- 1.5.14 This report will seek to clarify the existence or otherwise of statutory protections on trees for the site and publish findings. However, should any operational works be commissioned because of the survey it is incumbent on the contractor undertaking those works to seek clarification from the Local Planning Authority and give any notifications / seek any permissions should protections be in place and not covered by the granting of the proposed project's planning permissions. The LPA, (Mid Sussex District Council), has been contacted to determine whether any statutory protections to trees at the Site exist; their on-line TPO / Conservation Area checker map was accessed and it shows that there are no statutory protections to trees at the Site; it is not covered by a TPO and it is not subject to Conservation Area status, (see Appendix 4 for this screenshot). Parts of the property, (but not the section of the property designated 'the Site' are categorised as Ancient Woodland; for further detail on this see the screenshot of the MAGIC Map in Appendix 4.
- 1.5.15 Should any tree works be commissioned as a result of recommendations made in the Tree Survey the commissioned contractors should adhere to BS:3998 – 2010: Tree work; Recommendations.
- 1.5.16 On undertaking the recommended works, the arborist / tree surgeon must without delay report any defects that become apparent while climbing or working on the tree/s in question. Those defects must be reported immediately to the relevant project manager, landowner and/or the author of this report to enable the appropriate remedial action.
- 1.5.17 The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act 2000 provides statutory protection to birds' nests whilst under construction or in use, and any contents therein. Any species listed in the Conservation of Habitats and Species Regulations 2017, are also protected, (commonly known as 'European Protected Species' – 'EPS'). Some may create habitats within trees. This is particularly relevant to bats as trees and features of trees can provide roosts. All bats and their roosts are protected. Whilst this report does make an assessment to

the likelihood or otherwise of bat roosts, this is indicative and cannot be relied upon, as all observations are made from ground level. It is incumbent on any contractor undertaking operational works to ensure appropriate aerial checks are made for EPS before commencement of works with the potential to disturb or destroy a roost.

- 1.5.18 This is an arboricultural report and therefore does not rely on ecological or archaeological data. If either is commented upon within the report further professional advice should be sought
- 1.5.19 To achieve the study objectives stated in this report, STC were required to base our conclusions on the best information available during the period of the investigation and within the limits prescribed by our client in the agreement. No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. Thus, we cannot guarantee that the investigations completely defined the degree or extent of e.g., species abundances or habitat management efficacy described in the report.
- 1.5.20 All rights in this report are reserved for the commissioning client and The Sussex Tree Company. The report or its constituent contents may not be lent, sold, hired out or divulged to any 3rd party not directly involved with the development project unless permission is sought and obtained from The Sussex Tree Company.

Appendix 6: Arboricultural Survey – methodologies:

Arboricultural survey

- On-site analysis follows the VTA practice, developed by Prof. Dr. Claus Mattheck and published by Lonsdale, (VTA: 1999); all observations are made from ground level.
- Assessment uses the guidance for survey requirements and categorisation uses the Cascade Chart for Tree Quality Assessment, (Appendix 1), both taken from BS 5837: 2012. Recorded trees have been given a reference number which can be found within the Tree Survey, and on the supplied drawings.
- Assessment is based around the useful life expectancy of the tree(s) and their condition and their contribution to the amenity value of the environment – categorised using four letters, the values of which are described in Appendix 1, Schedule 1.
- Branch spread, in general, has been measured on four sides together correlating to the compass points: north; east; south; west. Stem diameters are measured at 1.5m above ground.
- Current tree heights have been measured using a HAGLOFF clinometer, except where trees are inaccessible, when measurements will have been estimated, and, if possible, using Pythagoras' theory of trigonometry.

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- Where, due to local constraints such as impenetrable vegetation or tree location in private property to which direct access to trees was not possible, field data will have been estimated and referenced in the data with shading, (grey) and an (E) beside the figure.

Ash die-back disease

- Following reports of ash dieback disease, first reported in 2012 and caused by the fungus *Hymenoscyphus fraxineus*, there is concern over the future health of ash trees in the UK. Any categorisation of ash trees within this survey are based around the condition at the time of surveying and life expectancy in a normal environment.
- Where ash trees are found to have the disease, they will fall into a C or U category, (dependent on contemporary research findings), and be reported to the Forestry Commission, as well as the client.
- More information can be found on the Forestry Commission's web page: <http://www.forestry.gov.uk/planthealth>

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Glossary / key to interpreting tree survey data sheet

- **Tree/group of trees number:** where trees have historic tree-tag numbers attached to their stems, the tag number is used for identification. Where there are not tags, a number is attributed to each tree or group of trees surveyed and corresponds to marked areas on the Tree Location Plan(s).
- **Species:** the botanical and common names for each tree or group of trees is provided.
- **Height:** an estimated height is given in metres; although a clinometer is used, these devices are not infallible. Precise ways to obtain tree height are by either climbing to the highest growth tip and measuring from there to ground level; or to using Pythagoras' theory of trigonometry to mathematically calculate height – however, the Haglöf clinometer STC LLP use estimates within tolerable levels of accuracy.
- **DBH range:** an estimation of the tree's diameter at breast height is given, measured in millimeters and in ranges of 75mm. The typical DBH reading is taken at around 4.5ft or 1.37m AGL – diameters are taken at 'breast height' to avoid potential inaccurate readings at ground level, where buttressing of roots is common for many species.
- **Age Class:** a subjective judgment on the extent of maturation of each tree or group of trees surveyed; each value is based on the report author's knowledge of the particular species of tree in question and is judged against the average length of life for the species in an 'ideal' or 'usual' surrounding environment. The categorisation used is:

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- Newly planted
 - Juvenile
 - Semi-mature
 - Mature
 - Over-mature
 - Veteran
 - Dead specimen
-
- **Bat Habitat Potential:** an assessment of the tree or its features and the likelihood whether these present a suitable potential habitat for bats or other EPS. The categorisation used is:
 - n/a
 - Low
 - Medium
 - High
-
- **Condition:** an appraisal of the tree or group of trees present overall structural status and physiological health, as well as any significant pre-existing external environmental impacts. The categorisation used is:
 - n/a
 - Dead
 - Poor
 - Fair
 - Good
-
- **Risk Rating:** an assessment of the observed hazards presented by the tree/group of trees and associated features, and the categorisation of the severity of risk these present to persons or property. The categorisation used is:
 - Low – potential risk to damage persons or property is within tolerable levels
harm is not likely to occur within the next 12-24 months
 - Medium – potential risk to damage persons or property is of a medium likelihood;
harm may occur within the next 6-12 months
 - High – potential risk to damage persons or property is of a high likelihood;
harm may occur within the next 3-6 months
 - Immediate – potential risk to damage persons or property is immediately likely;
harm may occur immanently
-
- **Remedial recommendations:** enacting the recommendations for work given will mitigate or remove any hazard observed and lower the tree/group of trees' risk rating to tolerable levels; this does not apply where the recommendation given is for further surveying, analysis or investigation – in such instances the report's recommended instructions must be followed and delivered, as if the risk rating for the tree/groups of trees were 'immediate'. Further recommendations made as a result of the re-surveying,

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assessment, analysis or investigation also must be followed and delivered to lower the tree/group of trees' risk rating to tolerable levels, (any associated timeframes will apply from the date of the re-surveying, assessment or investigation).

- **Abbreviations and glossary:** certain commonly used phrases have been abbreviated for ease of delivering this survey. These are listed below. Certain technical terms used in arboriculture may appear in this report and their precise meaning may not be familiar to 'lay-people', so the author has supplied brief explanations. These are listed in the glossary below:

Abbreviations:	NWR –	No works recommended
	GL –	Ground level
	AGL –	Above ground level
	DBH –	Diameter at breast height
	VTA –	Visual tree analysis
	DOC –	Duty of Care
	CODIT –	Compartmentalisation of dysfunction/damage in trees

Glossary:

Access Facilitation Pruning – *description of an arboricultural operational task* – A one-off tree pruning operation necessary to provide access for operations on site, which, when complete, are without significant adverse impact on tree physiology or amenity value.

Aerial investigation and report – *a description of arboricultural consultancy practice* – to undertake an investigation of aerial sections of a tree, not observable from ground level, using a systematic approach; to analyse structural integrity and any observable features – recommended when the VTA analysis from ground level is incomplete/inconclusive and the consultant has seen a feature/s which require further investigation to decide on a risk-rating and/or works priority.

Arboriculturalist – *description of professional status* – person who has gained expertise in the field of trees, (with particular reference to construction projects), through relevant education, training and experience.

Arboricultural Impact Assessment (AIA) – *arboricultural consultancy task for trees on development sites* – a study, undertaken by an arboriculturalist, to identify, evaluate and

possibly mitigate the extent of direct and indirect impacts on existing trees that may arise as a result of the implementation of any site layout proposal.

Arboricultural Method Statement – *arboricultural consultancy task for trees on development sites* – a document describing the methodology for the implementation of any aspect of development that has potential to result in loss of or damage to a retained or newly installed tree.

Bifurcated – *description of tree architecture* – when a tree has 2 distinct stems.

Cambium/cambial – *description of tree morphology* – the layer of cellular structure immediately behind the bark, where vascular tissues are created.

Cavity – *description of tree morphology* – a feature of a tree's architecture that is an incursion into the interior wood in some way, shape or form, usually formed as a result of a branch tearing away from the tree, pathogenic incursion or animal incursion, (or combination of all of these).

Canker – *description of tree morphology* – an area of bark/wood that exhibits dysfunctional growth patterns, often with localised degradation in structural integrity.

Construction Exclusion Zone – *arboricultural consultancy terminology* – an area based on the RPA where access is prohibited for the duration of the enabling and construction phases of a development project

Crown – *description of tree architecture* – the part of the tree distinct from the roots and stem(s), where most of the tree's leaves are, supported by primary, secondary, tertiary branches and twigs/shoots.

Drop-crotching – *description of arboricultural operational practice* – to prune a tree by selecting branches with terminal growth as the reduction's desired length from crown perimeter.

Epicormic – *description of tree morphology* – a type of branch/shoot growth emergent from adventitious buds or parenchyma tissue present within the layer of wood immediately below the tree's bark, (cambium). These branches attach to the tree's branches/stems in a way that is structurally much weaker than branch attachments made in the normal course of a tree's development.

Ganoderma applanatum – a tree pathogen – commonly known as the artist's bracket, artist's conk or bear bread. It is a wood-decay fungus that causes rot of the tree's heartwood. Its fruiting bodies are hard brackets that appear white at first and then later brown in colour.

https://en.wikipedia.org/wiki/Ganoderma_applanatum

Internal investigation and report – a description of arboricultural consultancy practice – to undertake an investigation of the trees

internal wood/wood structures using specialist equipment; either a Resistograph drill machine or a tomograph machine. These will give readings that when analysed that can be interpreted by the arboricultural consultant to make judgments about the integrity or otherwise of the tree's internal wood structures and deduce/extract from these the likelihood of failure and/or recommendations to mitigate risks.

Kretzschmaria deusta – a tree pathogen – commonly known as 'brittle cinder' is a fungus and plant pathogen. It is a 'soft rot', preferentially degrading the cellulose, then later both the cellulose and lignin that make up wood cells. It colonises the lower stem and/or roots of living trees through injuries or by root contact with infected trees. It can result in sudden breakage/complete failure from the root/stem junction in otherwise apparently healthy trees.

https://en.wikipedia.org/wiki/Kretzschmaria_deusta

Lesion – description of tree morphology – a small area of dysfunctional bark tissue.

Limb – description of tree morphology – branch.

Management recommendations – arboricultural consultancy task for trees surveyed – comments based on VTA observations, on the condition of the tree, group or woodland and recommendations for future works.

Monolith – description of arboricultural operational practice – to partially fell a tree, but leave a designated length, (above ground level), of stem standing; the remaining section is not considered a hazard and will become a site for wildlife habitation.

Re-trenchment pruning – description of arboricultural operational practice – crown reduction in late-mature and senescent trees to anticipate or keep pace with decline in the crown.

Root Protection Area, (RPA) – *arboricultural consultancy terminology* – a layout design tool showing the minimum area needed around a tree’s stem to protect its subterranean rooting structures so as to maintain the tree’s future viability, if left undisturbed.

Root/stem junction – *description of tree morphology* – where the root and the stem join.

Scaffold – *description of tree morphology* – a primary branch; one that grows directly from the stem and acts as a support for secondary branching

Self-set – *description of a tree’s origins* – when the tree has been naturally propagated, in other words, not planted by human agency.

Tree Constraints Plan – *a description of arboricultural consultancy task for trees on development sites* – a scale drawing showing the pre-existing trees, groups of trees and hedges, (and other landscape features), on the site of a proposed development as well as the footprint of the proposed development, thereby illustrating what, if any, constraints the tree-scape imposes.

Tree Protection Plan – *a description of arboricultural consultancy task for trees on development sites* – a scale drawing incorporating finalised design proposals for a development, showing locations and dimensions of retained trees, their RPAs and the location of tree and landscape protection measures; also, the locations of any new trees to be installed, (and any tree and landscape protection measures required for these).

Trifurcated – *description of tree architecture* – when a tree has 3 distinct stems

Union – *description of tree morphology* – a site within the tree’s architecture where 2 branches or stems, (or combination of both), originate

Veteran Tree – *arboricultural specific terminology* – a tree that, by recognised criteria, shows up to 4 features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned. These might be large girth, habitat features, signs of crown retrenchment and hollowing of the stem.

Arboricultural Impact Assessment (BS:5837)

Wound-wood/reaction wood – *description of tree physiology* – a type of wood grown by trees, distinct from wood grown in the usual course of development, and in reaction to a wounding event, as part of the CODIT defense strategy trees have. Wound-wood has greater strength properties than wood grown in the usual course of development.

Appendix 7: Summary of author's qualifications and experience

The author, Nicholas Eddison, has the following qualifications and experiences and has undertaken CPD as described, below:

i. Qualifications

BA (Honours): Politics, Philosophy and History, (Birkbeck College, University of London)

Level 4 Diploma in Arboriculture, (Merrist Wood)

LANTRA Professional Tree Inspection Certificate

Arboricultural Association Assessor for the Approved Contractor scheme

Arboricultural Association Certificate in Undertaking Aerial Tree Inspections

Named Manager in the Arboricultural Association's approved contractor scheme for a medium/large business

Arboricultural Association Certificate in Risk Assessment for Commercial Arboriculture

Arboricultural Association Certificate in Subsidence Reporting in relation to Trees

Certificate in Bat Awareness Training: compliant with BS: 8596: 2015 – Surveying for Bats in Trees and Woodland

Arboricultural Association Certificate in Assessing Tree Risk – Likelihood of Failure

Arboricultural Association Certificate in Assessment of Tree Forks

NPTC Level 2 Certificates in: Chainsaw Cross-Cutting and Maintenance; Felling and Processing Trees up to 380mm; Tree Climbing and Aerial Rescue; Use of chainsaw from a Rope and Harness

Level 2 Award in Basic Electrical Knowledge, (Arboriculture)
City and Guilds: Signing and Guarding, (Chapter 8)

ii. Practical/relevant experience

10 years as a practicing Arboricultural Consultant
5.5 years at director level as an Arboricultural Director
Assessor for the Arboricultural Association's Approved Contractor scheme.
Trainer of chainsaw maintenance and cross-cutting at Brinsbury College.
Over 30 years' experience as a practicing Climbing Arborist; in the domestic, commercial and civil arenas.
Over the preceding 10 years the author has undertaken and delivered multiple Tree Condition Survey Reports; BS:5837 Tree Surveys and Arboricultural Reports in support of planning applications; Aerial Inspection Reports; Subsidence Reports; Resistograph Internal Investigation Reports; Tree Hazard Assessment Report; also worked as Project Arboriculturalist for civil development projects.

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iii. Continuing professional development

The author periodically attends courses and lectures in order maintain his knowledge base and to further his learning and development. Examples of recently attended CPD events:

- Regular CPD sessions required for Assessors of the Arboricultural Association's Approved Contractor scheme.
- Arboricultural Association's seminar on the Approved Consultant scheme
- a training day for AutoCAD and the 'Keytree' application, from Keysoft solutions – September 2019;
- the most recent meeting of TDAG, (Trees in Design Action Group) – September 2019;
- a seminar in morphophysiology of trees at Barcham tree nursery – summer 2019;
- Arboricultural Association's Subsidence Reporting course – Spring 2019;
- Arboricultural Association's Aerial Tree Inspection course – Spring 2019; the
- Arboricultural Association's Business Masterclass – Winter 2019;
- and Claus Mattheck's farewell lecture at Loughborough University in the summer of 2018.

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