The Sussex Tree Company

Arboricultural Method Statement For Libra BESS

(BS:5837)



SITE LOCATION:

Oakhurst
West Chiltington Road
Pulborough
West Sussex
RH20 2EE

Date of Issue:
June 2024

Arboricultural Method Statement (BS:5837)

for…

Your Home Plans Ltd

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1.0 Introduction / instruction

1.1 Context

1.1.1 This Arboricultural Method Statement (AMS) is written in conjunction with the document 'Arboricultural Impact Assessment' (AIA), and to comply with The Local Planning Authority's, (LPA), pre-commencement conditions, prior to works starting on the Site. The LPA for this Site is Horsham District Council. Details of the relevant trees / hedgerows for this Site are contained within the Tree Survey submitted as part of the AIA.

1.1.2 The LPA has stated, "*Pre-Commencement Condition: No development shall commence, including demolition pursuant to the permission granted, ground clearance, or bringing equipment, machinery or materials onto the site, until an Arboricultural Method Statement detailing all trees/hedgerows on site and adjacent to the site to be retained during construction works, and measures to provide for their protection throughout all construction works, has been submitted to and approved in writing by the Local Planning Authority. The development shall be implemented and thereafter carried out at all times strictly in accordance with the agreed details.*

Any trees or hedges on the site which die or become damaged during the construction process shall be replaced with trees or hedging plants of a type, size and in positions agreed by the Local Planning Authority.

Reason: As this matter is fundamental to ensure the successful and satisfactory protection of important trees and hedgerows on the site in accordance with Policy 33 of the Horsham District Planning Framework (2015)"

1.2 Introduction

1.2.1 The principal author of this AMS is Nicholas Eddison, *BA DipArb*, Senior Arboricultural Consultant at The Sussex Tree Company. Nicholas is a Technician member of the Arboricultural Association and is LANTRA certified to undertake Professional Tree Inspections.

1.3 Instruction

1.3.1 The Sussex Tree Company were instructed by Your Home Plans Ltd, ('the client'), to produce a detailed AMS following guidance set out in the British Standard document number 5837 "Trees in relation to design, demolition and construction – recommendations" (2012).

1.4 Scope of works

1.4.1 In order to safeguard retained trees on-site during development works it is necessary to implement a tree protection strategy. The objective of the following detailed AMS is to provide mitigation and / or protection methodology for retained trees throughout the demolition and construction phases of the Proposed Development, including the above

ground and below ground parts of the trees as well as their rooting medium. This report is concerned with the protection of all retained trees and hedgerows at the Site.

1.5 Reference Documents

1.5.1 As background information, the following documentation has been referenced:

Table 1: Document and Plans Referenced or Provided

Document Description	Reference Number	Prepared By	Date
Approved Block Plan	OAK-23 / 01 REVB	Your Home Plans Ltd	12/03/2024
Block Plan	OAK-24 / B01 REVA	Your Home Plans Ltd	26/03/2024
Garage	OAK-24 / AG101 REVA	Your Home Plans Ltd	02/04/2024
Screenshot of LPAs planning constraints map	n/a	n/a	05/2024
Oakhurst Arboricultural Impact Assessment	n/a	The Sussex Tree Company	05/2024
Oakhurst – Tree Constraints Plan	STC-OH-TCP-01Rev. 1	The Sussex Tree Company	05/2024
Oakhurst – Tree Protection Plan	STC-OH-TPP-01Rev. 1	The Sussex Tree Company	05/2024

1.5.2 The report offers strategies, with accompanying methodologies, for the protection of trees and hedgerows that are retained during the demolition and construction phases of the proposed development and suggests appropriate mitigation for any trees to be removed.

1.6 Report limitations

1.6.1 The contents are intended for the sole use of the applicant, their authorised agents and planners from the LPA (Horsham District Council) in respect of the Proposed Development 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.

(1.6 – 'Report Limitations' continues, and sections 1.6.2. – 1.6.19 can be found in Appendix 4)

1.7 Access conditions

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

2.0 General requirements

2.1 The AMS and tree protection plans shall remain on-site for the duration of demolition, construction and landscaping works and will be available to Site operatives at all times. All operatives at the Site shall be briefed about tree / hedgerow related factors as part of their Site induction.

2.2 Any variation from the methodology described in this method statement shall be discussed with the project arboriculturist and agreed with the LPA's arboricultural officer.

2.3 In order to assist with the implementation of the AMS and management of trees and hedgerows on the Site, the client is to appoint a suitably experienced and qualified project arboriculturalist prior to the commencement of any active works.

3.0 Phasing of works

3.1 To ensure trees are protected, the Proposed Development shall occur in the following order for arboricultural requirements:

Table 2: Phasing of works

Timescale	Task	Responsibility
Pre-development	Pre-commencement meeting.	To be arranged by the Site owner/operator, attended by the project arboriculturalist and LPA's tree officer (if required).
Pre-development	Carry out preparatory felling and pruning works.	To be arranged by the Site owner/operator, with arboricultural contractor.
Pre-development	Erection of tree protection fencing, as specified in the TPP.	To be arranged by the Site owner/operator, with sign off from project arboriculturalist.
Pre-development	Carry out supervisory visit (and report findings and recommendations if necessary / required).	To be arranged by the Site owner/operator and arboriculturalist.
During demolition / construction phases of development	Carry out supervisory visits as specified in the AMS, if required (and report findings and recommendations if necessary / required).	To be arranged by Site owner/operator, with project arboriculturalist.
Post development	Phased removal of protective barriers, (tree protection fencing).	To be arranged by the Site owner/operator, with sign off from project arboriculturalist.

Post development	Inspect retained trees and carry out remedial tree work (if necessary).	To be arranged by the Site owner/operator, with sign off from project arboriculturalist and operations undertaken by arboricultural contractor, if required.
Post development	Install new trees, if specified.	To be arranged by the Site owner/operator, with arboricultural contractor.

4.0 Initial Tree Works

4.1 The tree felling specified in the AIA (in sections 6.1.1 and 6.2) is to be carried out as the first stage of the development, prior to the installation of tree protection fencing. There are no requirements for access facilitation pruning identified in the AIA, however any requirements for access facilitation pruning which have not been anticipated are to be discussed at the pre-commencement meeting with the project arboriculturist and be agreed with the LPA's arboricultural officer, if attending. Should the LPA's officers not attend, and revisions are necessary, the project arboriculturalist will notify the LPA's officer in writing of those revisions.

4.2 Arboricultural contractors must carry out all tree works to standards set out in the British Standard document, BS3998: 2010 'Tree works – recommendations'.

5.0 Tree Protection Fencing

5.1 Local Site conditions may mean that the precise fencing location may need to be slightly adjusted on the Site but is not expected to differ greatly from that shown on the Tree Protection Plan, ('TPP'). The final fencing position should be agreed on by the LPA before the commencement of any Site works. Once agreed, tree protection fencing must be installed in the locations shown on the TPP, (shown as a thick, dashed, blue line). The areas within / beyond the tree protection fencing are designated as a construction exclusion zone, ('CEZ'), where no demolition or construction activities can occur.

5.2 The tree protection fencing must be regarded as impermeable. No incursions through it can be made for the entire duration of the demolition and construction phases of the development. If, at any time, an unplanned breach does occur, works on the Site must halt until the breach is sealed. The project arboriculturalist must be informed and given opportunity to inspect the reinstated tree protection fencing. If, for any reason, an incursion into the CEZ is deemed necessary by the Site owner/operator, it must be suitably explained, and the incursion planned. Any planned incursion into the CEZ must be attended by the project arboriculturalist, who can manage the incursion to ensure no harm occurs to the protected trees/hedgerows (above and below ground), and verify the tree protection fencing is resealed after the planned incursion. The LPA's officer must be informed of any planned incursion into the CEZ.

5.3 The specification for tree protection fencing can be found in Appendix 1.

5.4 Signs indicating the purpose of the fencing must be fixed to it and remain in situ for the duration of the Proposed Development. Examples of compliant signage are displayed

in Appendix 2. These should be waterproof signage to ensure they are suitable for wet weather conditions.

6.0 Temporary Ground Protection

6.1 In order to undertake the planned demolition and construct the Proposed Development, there is no requirement for temporary ground protections.

7.0 Permanent Ground Protection

7.1 In order to undertake the planned demolition and construct the Proposed Development, there is no requirement for permanent ground protections.

8.0 Excavation methodologies within RPAs

8.1 Where the design proposals necessitate excavation of and re-grading of existing and proposed levels within the RPAs of retained trees, (such as for the demolition of existing hard surfacing within the RPAs of retained trees / hedgerows), one of two excavation methodologies must be implemented.

8.1.1 A 'Manual Excavation Method', using handheld tools. Workers will ensure there is no incursion into the RPA of retained trees – only excavations to the lowest levels of the pre-existing hard surfacing are permitted.

8.1.2 A 'Reach In, Drag Out Method', utilising appropriately sized machinery; the machines used must be positioned on the pre-existing hard surfacing or outside the RPA of retained trees/hedgerows and must only excavate to the lowest levels of the pre-existing hard surfacing. Surfacing debris loosened by excavation works must be dragged out of the RPAs across the pre-existing hard surfacing. At no time are any machines to be sited on unprotected, exposed area of RPAs of retained trees.

8.2 The appropriate methodology for the task required should be selected.

8.3 Should roots be exposed during these operations, those over 25mm diameter or those occurring in clumps must not be severed. Tree roots below such size can be cut cleanly using specialised hand tools only and to the minimum extent to allow provision, (if the design plans necessitate it),. Severing of tree roots must be undertaken by an arboricultural contractor with sufficient experience in root pruning.

8.4 A record of any roots over 25mm diameter or those occurring in clumps will be compiled by the Project Arboriculturalist. Assessments of the significance of loss of these roots will be made and reported to the LPA.

8.5 Any roots over 25mm diameter or those occurring in clumps will be preserved by being wrapped in hessian and kept moist until new surfacing is installed over them.

9.0 Storage of materials

9.1 No harmful chemicals, spoil or materials are to be stored within the CEZ.

9.2 Cement mixing must always occur outside the CEZ. If cement mixing occurs close to the CEZs, or there is the potential for cement washings to leech into RPAs of retained trees, adequate ground protection measures are to be used.

10.0 Temporary Construction Compound

10.1 The Temporary Construction Compound, if required, should be located outside of any retained trees/hedgerows RPAs. The storage and securement of materials is to be permitted only within the temporary compound.

10.2 The compound area shall be located so as to not incur damage or injury to the root systems or canopy of any retained trees or vegetation within or adjacent to the Site, in accordance with *BS 5837:2012 – 'Trees in Relation to Design, Demolition and Construction – Recommendations'.* All Site operations associated with the usage of the compound area shall be undertaken with due care and attention to negate damage of the surrounding environment.

10.3 All Site operations and construction procedures for the duration of the construction period shall seek to protect the existing site vegetation and root protection areas in accordance with *BS 5837:2012.*

11.0 Demolition of existing hard surfacing and landscaping features

11.1 Sections of the proposed demolition of existing hard surfacing required to implement the Design Proposal are within the RPA of retained tree T3.

11.2 The demolition of existing hard surfacing within the RPA of T3 must follow the methodologies as detailed in sections 8.1.1. to 8.5. of this report.

12.0 Installation of foundations for the Proposed Development

12.1 Sections of the proposed new foundations required to implement the Design Proposal are to be installed within the RPA of retained tree T3.

12.2 The foundation specifications within the Design Proposal are for a raft-type foundation which is to be approximately 600mm in thickness and it is to be installed at the level of the pre-existing hard surfacing, therefore there are no new incursions into the RPA of T3 because there will be no new excavations into the sub-surface below the level at which the pre-existing hard surfacing was installed.

12.3 Appropriate barriers are to be installed prior to the installation of the raft-type foundation to ensure there is no harmful leaching or leakage, (into the roots of T3), of corrosive chemicals from the cement or equivalent substances used in the constitution of the raft-type foundations.

12.4 Should any further encroachments into the RPAs of retained trees be required, the project arboriculturalist must be informed, who will inform the LPA. The AMS will be revised, detailing the revised positions of the tree protection fencing, the position and specification of ground protection measures and any further access facilitation pruning.

13.0 Landscape operations within the RPAs

13.1 No landscaping within the RPAs of retained trees is planned at this stage.

13.2 Minor surface reconfigurations are unlikely to have a negative effect on trees / hedgerows to be retained. However, to ensure foreseeable damage does not occur, hand-dig only methods will be adopted when working with the RPA of retained trees / hedgerows, should landscape / making good operations be required.

14.0 Below ground infrastructure within the RPAs

14.1 The location and direction of new services, if required, should be designed to allow services to be routed away from the RPAs of existing trees.

14.2 Where the proposed routing of services impinges upon a tree RPA of any existing tree /hedgerow to be retained, the routing should be undertaken as a minimum standard in accordance with NJUG Volume 4, issue 2: 'Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees'.

14.3 'No-dig' or 'Manual Excavation' methodologies are to be followed – carefully hand digging and routing the apparatus in the most direct way to and from the exterior of the RPA radius.

14.4 Services are to be routed together wherever possible to create the minimum impact upon the roots of the existing trees to be retained. Trench excavation across the tree Root Protection Area radius beside an existing tree should be avoided, whereby tree roots would become severed. Where services are to cross the edge of an existing RPA, they should be routed via a hand dug or 'no-dig' ducting sleeve, avoiding damage to roots.

15.0 Above ground protection of retained trees and existing habitats

15.1 The Contractor shall exercise due care when performing operations beneath the canopy of existing mature trees and vegetation designated for protection and avoid at all times damage to the roots, trunk and branches.

15.2 The Contractor shall train all members of the construction workforce operating within the proximity of valued habitats and make such persons aware that there shall not be, without having sought prior notification, the following operations undertaken within the protected areas:

- Dumping of spoil or rubbish, excavation or disturbance of topsoil, parking of vehicles or plant, storing of materials or placing of temporary accommodation within an area which is larger than the of the branch spread of the tree or within an area with a radius of half the tree's height, measured from the trunk, or within the specified Root Protection Areas;

- Severance of roots exceeding 25 mm in diameter. If unintentionally severed, notice shall be given, and specialist arboricultural advice sought;
- Changes to the level of the ground within the specified RPAs; and
- Vegetation clearance to site boundaries during the bird nesting season (nesting season: March-September inclusive). Any clearance must be undertaken outside nesting season or alternatively under a watching brief from a suitability qualified arboriculturalist / ecologist.

16.0 Arboricultural Supervision

16.1 Arboricultural supervision will be required for the following stages of development:

- Prior to commencement of works, the project arboriculturist is to review and, where necessary, provide input into the Construction Environmental Management Plan (CEMP), if there is one for this project. Where necessary, the AMS and TPP will be updated to accommodate the CEMP.

- A pre-commencement meeting is to be held between the contractors and the project arboriculturist, either in person or virtually. The LPA's 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:

  I. To clarify the tree protection methodology with the Site manager;
  II. To sign off that pre-commencement tree works are completed, as specified in the AIA, and to agree any requirements for access facilitation pruning which are not anticipated prior to the meeting; and
  III. To sign off that the tree protection barriers have been installed in the correct locations and to the agreed specification.

16.2 If significant root growth is disturbed during construction activities which is 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 – rooting areas may be greater than the RPA.

16.3 If at any time during the construction phase, 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, its rooting medium or any other unforeseen circumstance.

17.0 Appendices:

Appendix 1: BS:5837 Recommended protective barrier (Fence A-Herras type fence).

Appendix 2: BS:5837 Recommended tree protection signage.

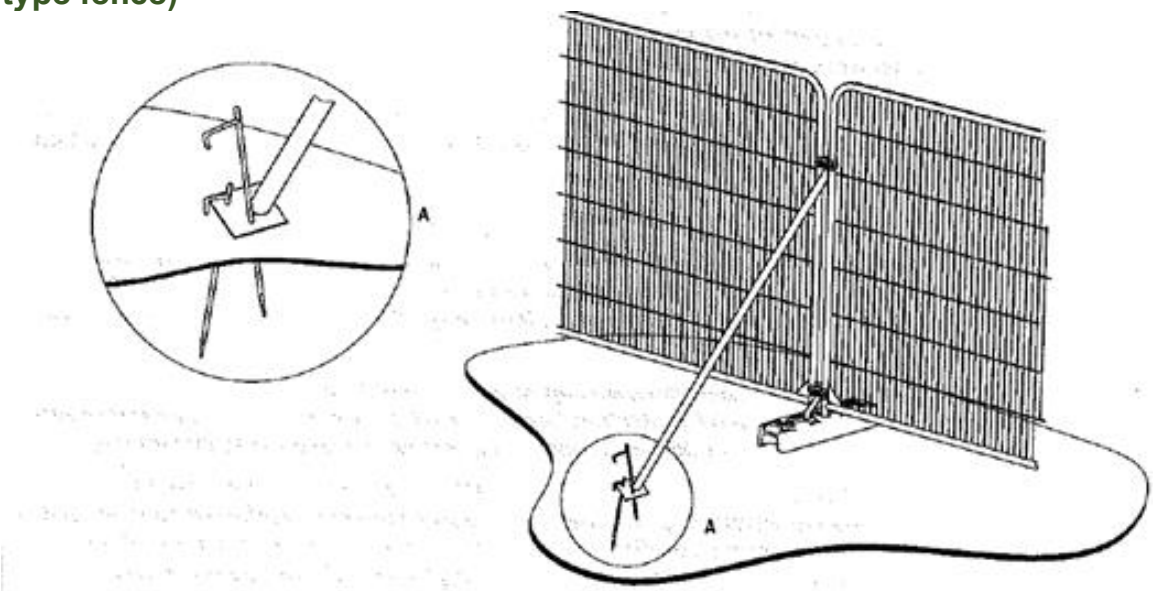
Appendix 3: Tree Protection Plan.

Appendix 4: Report Limitations (continued).

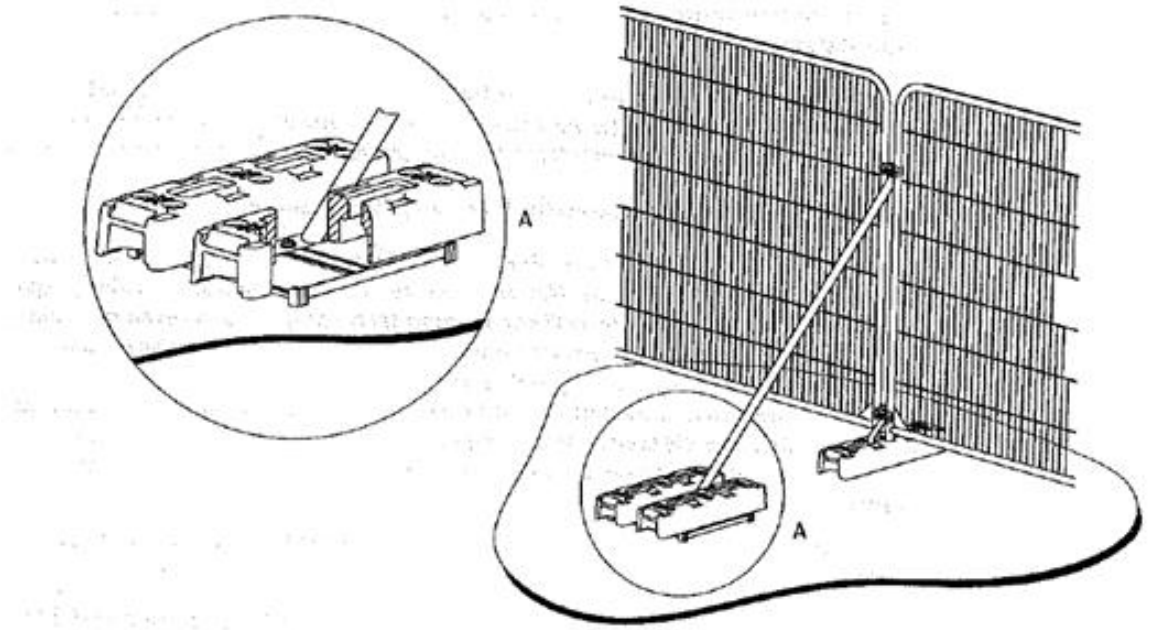
Appendix 5: Glossary of terms / key to interpreting arboricultural data.

Appendix 6: Summary of the author's qualifications and experience.

Appendix 1: BS5837 Recommended protective barrier (Fence A-Herras type fence)



a) Stabilizer strut with base plate secured with ground pins

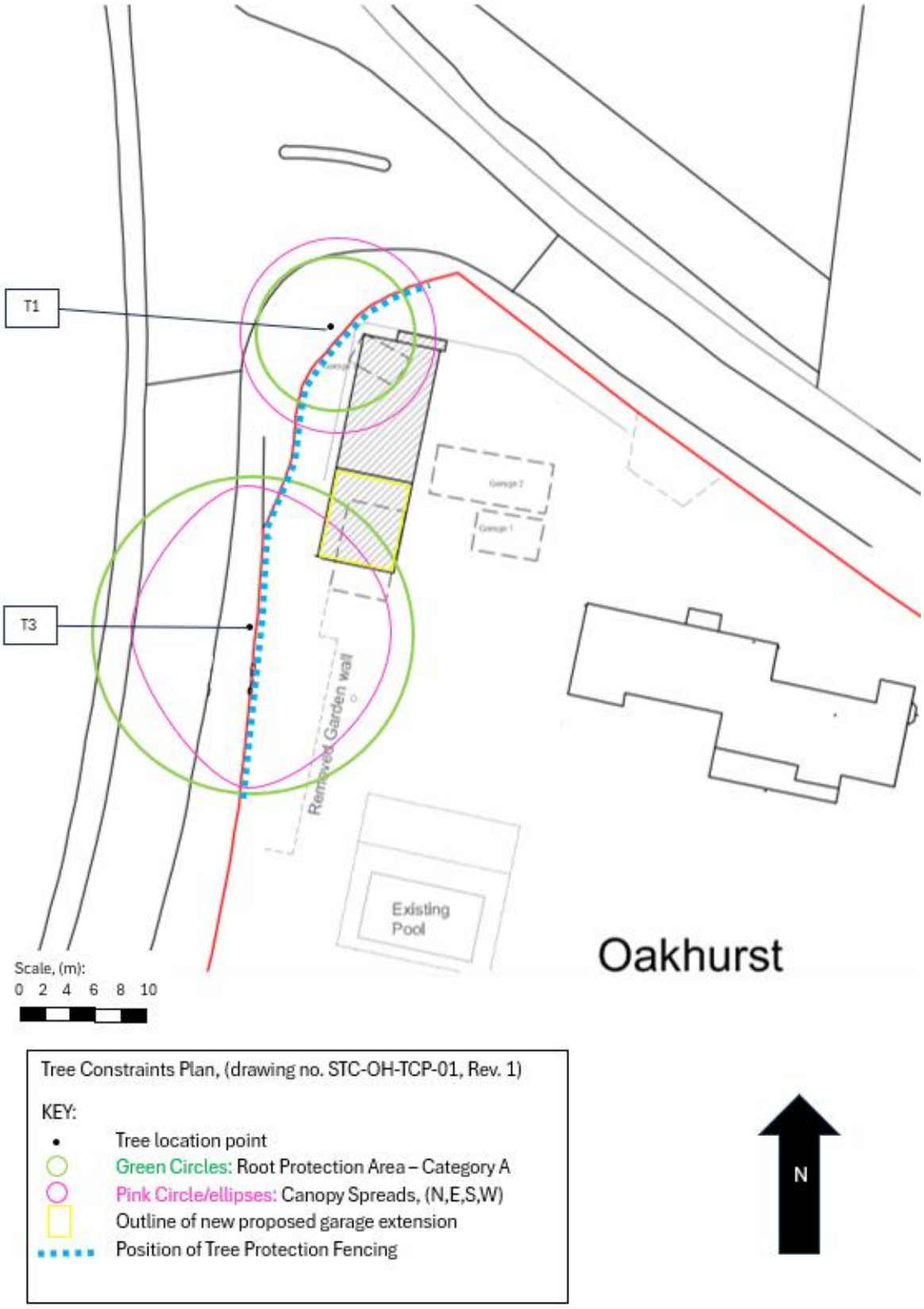


b) Stabilizer strut mounted on block tray

Appendix 2: BS5837 Recommended tree protection signage (to be installed on tree protection fencing):



Appendix 3: Tree Protection Plan:



Appendix 4: Report Limitations, (1.6.2 – 1.6.19)

1.6.2 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.

1.6.3 This is an arboricultural report and as such no reliance should be given to comments relating to buildings, engineering or soil.

1.6.4 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.

1.6.5 This is a report which accompanies a planning application and provides no detail specifically in relation to the health and safety of the trees.

1.6.6 This report does not comment on the effects of surveyed trees in relation to any issues of subsidence or heave.

1.6.7 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.

1.6.8 Formal assessment of topography, drainage, service conduits, soil conditions and the like are outside the scope of this report. Topographical surveying for the development project has not been undertaken, as far as the author is aware. Proposed new extension plans were provided to STC by Your Home Plans Ltd – these are architectural drawings, not topographical plans.

1.6.9 Other specialist arboricultural surveys (e.g., root collar examination or sonic tomography) have not been made and are beyond the scope of this report.

1.6.10 Specific laboratory investigations of soil properties (plasticity index, moisture content, suction pressure) have not been made and are beyond the scope of this report.

1.6.11 Where further inspections of particular trees, (or features), 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 ***only*** are valid for 12 months from the time of re-inspection. Any inspections are chargeable.

1.6.12 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.

1.6.13 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; or heavy, settled snowfall. Any re-inspections are chargeable.

1.6.14 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 as a result 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 author has established there are no TPOs in force and the property is not located within a CA.

1.6.15 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.

1.6.16 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 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.

1.6.17 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.

1.6.18 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.

1.6.19 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 5: Glossary

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 refence 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, there 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.

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 6: Summary of author's qualifications and experience

The author, Nick 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 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.

City and Guilds: Signing and Guarding, (Chapter 8)

Highways England Passport Holder

ii. Practical/relevant experience

Assessor for the Arboricultural Association's Approved Contractor scheme
10 years as a practicing Arboricultural Consultant
4 years at director level as an Arboricultural Manager
Over 25 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.
Review board member for the Arboricultural Association's Guidance Notes: Tree Climbing and Aerial Rescue; Use of Tools in a Tree
Member of Trees and Design Action Group, (TDAG)
Technician Grade member of The Arboricultural Association

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:

- 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 2019.

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