

# **The Sussex Tree Company**

## **Arboricultural Method Statement (BS:5837)**

### **SITE LOCATION:**

Land at Caldyne Park  
Turners Hill Road  
Crawley Down  
West Sussex  
RH10 4NQ



### **Date of Issue:**

November 2025

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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 Land at Caldyne Park 'Arboricultural Impact Assessment' (AIA), (Revision 1), to assist with a full planning application, for the construction of a new dwelling within the boundaries of a former military fuel storage depot, 'Land at Caldyne Park, Turners Hill Road, Crawley Down, West Sussex, RH10 4NQ' ('the Site'). The Local Planning Authority, ('LPA'), for this Site is Mid-Sussex District Council. Details of the relevant trees for this Site are contained within the Tree Survey submitted as part of the AIA.
- 1.1.2 Due to the design plan of the proposed development requiring the installation of landscaping features within the Root Protection Areas, ('RPAs'), of retained trees, (& other trees not surveyed in the retained woodland areas of the Site), it is deemed necessary to submit a detailed AMS as part of the arboricultural reports for this application.
- 1.1.3 There are 2 previous planning permission applications made within recent history for developments at this Site; application no. DM/21/1345 was for a four-bedroom residential dwelling to be constructed on the Site. The application was made in March 2021 & withdrawn in August 2021. Application no. DM/24/2799 was for a four-bedroom residential dwelling to be constructed on the Site. The application was made in November 2024 & withdrawn in March 2025. These details can be found in the accompanying AIA report document at section 1.3, 'Planning History'. This AMS accompanies & supports a new, different application.

### 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. He is also an Assessor for the Arboricultural Association's Approved Contractor scheme.

### 1.3 Instruction

- 1.3.1 The Sussex Tree Company were instructed by Didacious Designs Ltd, also known as 'DD Architects', ('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). This AMS, in conjunction with the AIA,

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will demonstrate the proposed development's compliance with BS:5837 2012 – Trees in relation to design, demolition & construction – recommendations.

## 1.4 Scope of works

- 1.4.1 In order to safeguard retained trees on-site during development works it is necessary to implement tree protection strategies. The objective of the following detailed AMS is to detail these strategies, (as far as is possible at this stage of the development), provide protection methodology and/or mitigation 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, and specify what future measures may be required in to guarantee the well-being of the retained trees at the Site. This report is concerned with the protection of all retained trees at the Site.

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## 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    |
|-----------------------------------------------------------|------------------|-------------------------|---------|
| Existing Site Plan                                        | 1608 - SK02      | DD Architects           | 01/2025 |
| Proposed Site Plan                                        | 1608 - SK20      | DD Architects           | 01/2025 |
| Landscape Layout                                          | 0364-1000-P03    | Nicholas Dexter Ltd.    | 09/2025 |
| Land at Caldyne Park – Tree Constraints Plan              | STC-TCP-LCP-01   | The Sussex Tree Company | 11/2025 |
| Land at Caldyne Park – Tree Retention and Protection Plan | STC-TRPP-LCP-01  | The Sussex Tree Company | 11/2025 |

- 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.

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## 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 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)*

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## 1.7 Access conditions

- 1.7.1 Access to all parts of the property was unimpeded. Access to 3<sup>rd</sup> party or public land was not required.

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## 2.0 General requirements

- 2.1 The AMS and Tree Retention & Protection Plans, ('TRPP'), 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 related factors as part of their Site induction.
- 2.2 In order to assist with the implementation of the AMS and management of trees on the Site, the client is to appoint a suitably experienced and qualified project arboriculturalist prior to the commencement of any active works.
- 2.3 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.

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## 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 | Selection & appointment of a Project Arboriculturalist                                                                                                           | To be arranged by the Site owner/operator                                                                                  |
| Pre-development | Pre-commencement meeting, (including the identification of failed trees, standing deadwood & major deadwood in retained tree's crowns – which is to be removed). | To be arranged by the Site owner/operator, attended by the project arboriculturalist and LPA's tree officer (if required). |
| Pre-development | Carry out removal of failed trees, standing deadwood & major deadwood in retained tree's crowns & preparatory pruning works, (if required).                      | To be arranged by the Site owner/operator, with arboricultural contractor.                                                 |
| Pre-development | Carry out lifting & appropriate storage of juvenile trees impacted by the proposed development                                                                   | To be arranged by the Site owner/operator, with landscaping or arboricultural contractor.                                  |

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|                                                        |                                                                                                                                      |                                                                                                                                                              |
|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pre-development                                        | Erection of tree protection fencing and installation of permanent ground protection, as specified in the AMS & TRPP.                 | 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 & temporary ground protection).                                      | 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                                       | Installation of juvenile trees previously lifted pre-demolition/construction into final planted locations                            | To be arranged by the Site owner/operator, with landscaping or arboricultural contractor.                                                                    |
| Post development                                       | Installation of new trees as per design plan                                                                                         | To be arranged by the Site owner/operator, with landscaping or arboricultural contractor.                                                                    |
| Post development                                       | Inspect juvenile trees either re-planted or newly installed                                                                          | To be arranged by Site owner/operator, with project arboriculturalist.                                                                                       |

## 4.0 Initial Tree Works

- 4.1 There are tree works required in order to 'make safe' the Site prior to any active demolition or construction works. There are a number of failed or windblown specimens; there are others which have been damaged or uprooted as a result of the impact from the failure of other trees. Also, there are a number of trees to be retained where there are either failed branches or where there is major deadwood within their crowns – these are hazardous & pose a significant risk to any potential Site users. Where these situations exert an influence, (in terms of 'target potential'), to Site users, it is recommended that the necessary remedial operations occur before any other operations, as part of the 'enabling works' for the proposed development.
- 4.2 The requirements for access facilitation pruning identified in the AIA, (to T1 – T6), must occur prior to the installation of tree protection fencing. Any further requirements for access facilitation pruning which have not been anticipated are to be identified and 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 arboriculturist will notify the LPA's officer in writing of those revisions.
- 4.3 No branches with a diameter greater than 25mm will be severed for access facilitation pruning.
- 4.4 Arboricultural contractors must carry out all tree works to standards set out in the British Standard document, BS3998: 2010 'Tree works – recommendations'.
- 4.5 It is recommended that for sections of the Site where the remit described in section 4.1 do not apply, (i.e., sections of the Site where there is no impact from any demolition or construction work – these being the wider woodland areas, including the areas designated as Ancient Woodland), a separate woodland management plan be created & its recommendations followed. This would not be relevant to this planning application but is regarded as good practice for custodians of woodlands, especially those designated as Ancient Woodland.

## 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 TRPP. 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 TRPP, (shown as a thick, dashed, orange 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, (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 deliver the design plan and construct the new dwelling, there is no requirement for temporary ground protections.

## **7.0 Permanent Ground Protection**

- 7.1 In order to deliver the design plan and construct the new dwelling, there is a requirement for permanent ground protection. Local Site conditions may mean that the precise location of the permanent ground protection may need to be slightly adjusted on the Site but is not expected to differ greatly from that shown on the TRPP. The final position should be agreed on by the LPA before the commencement of any Site works. Once agreed, permanent ground protection must be installed in the locations shown on the TRPP, (within areas shown as a thick, dashed, dark red line).
- 7.2 The specification for permanent ground protection can be found in Appendix 5.
- 7.3 Permanent ground protection is installed to protect the RPAs of retained trees from compaction & contamination during the demolition & construction phases of the proposed development & beyond into perpetuity. The design plan is to replace all the existing roadway with permanent ground protection & to ensure that permanent ground protection will be installed for the creation of the new driveway & internal roadways of the Site. Those areas where there are existing incursions will have the existing incursions either retained or replaced; where there is no existing incursion, the installation of permanent ground protection will

ensure the roots of retained trees are protected from compaction during these phases.

- 7.4 Where the design proposals necessitate the installation of permanent ground protection & excavations are required in order to install it, the methodologies detailed below in Section 8 must be followed.
- 7.5 Permanent ground protection must be in situ for the demolition & construction phases of the new dwelling.

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## 8.0 Excavation methodologies within RPAs

- 8.1 Where the design proposals necessitate excavation of areas within the RPAs of retained trees, this should occur after the installation of tree protection fencing, (which will exclude any areas within the CEZ from excavations).
- 8.2 Where the design proposals necessitate excavation of areas within the RPAs of retained trees, one of two excavation methodologies must be implemented.
  - 8.2.1 A **'Manual Excavation Method'**, using handheld tools. Workers will ensure there is no machine incursion into the RPA of retained trees. The only excavations permitted within RPAs of retained trees are those required to install the permanent ground protection, (demolition & construction phases for the new dwelling), or new landscaping features. These can occur only at locations specified by the design plan & as detailed in Sections 7 & 12.
  - 8.2.2 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 and must only excavate in locations required order to install the temporary ground protection, at the locations specified by the design plan. Surfacing debris loosened by excavation works must be lifted out or dragged out of the RPAs across the pre-existing surfacing layer, with the works closest to the centre of the RPA occurring first. At no time are any machines to be sited on unprotected, exposed area of RPAs of retained trees.
- 8.3 The appropriate methodology for the task required should be selected.
- 8.4 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.
- 8.5 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, (if it is decided no significant

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impact to the retained tree will occur if they are lost – preservation is the default position).

- 8.6 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, existing incursions or on areas of permanent ground protection.
- 9.2 Cement mixing must always occur outside the CEZ & existing incursions or on areas of permanent ground protection. If cement mixing occurs close to the CEZs, existing incursions or on areas of permanent ground protection, or there is the potential for cement washings to leech into RPAs of retained trees, adequate ground protection measures are to be used to prevent this happening.

## 10.0 Temporary Construction Compound

- 10.1 The Temporary Construction Compound, if required, should be located outside of any retained trees 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 retained site vegetation and root protection areas in accordance with *BS 5837:2012*.

## 11.0 Demolition of existing hard surfacing and landscaping features

- 11.1 There is demolition required within the RPAs of T1 – T6 & T8; this demolition is minor and is limited to the removal of the top layer of surfacing only – no incursion below the top layer of surfacing is to occur.
- 11.2 Where the design proposals necessitate the removal of the top layer of surfacing within the RPAs of T1 – T6 & T8, one of the two methodologies detailed in Section 8 must be implemented.

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- 11.3 The operations to remove the existing surfacing within the RPAs of T1 – T6 & T8 will be supervised contemporaneously and in person by the Project Arboriculturalist. Should there be a requirement to sever ‘insignificant’ roots during this operation, this must be undertaken by an arboricultural contractor with sufficient experience in root pruning or the Project Arboriculturalist.
- 11.4 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, (if it is decided no significant impact to the retained tree will occur if they are lost – preservation is the default position).
- 11.5 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.
- 11.6 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.

## **12.0 Installation of new landscaping features within the RPAs of retained trees**

- 12.1 Sections of the proposed new landscaping features required to implement the design plan are to be installed within the RPA of retained trees T1 – T6 & T8 & more generally throughout the Site & its surrounding woodland areas.
- 12.2 These landscaping features are:
- The gateway, which is to be moved from its present position to an as yet undetermined position set back from the roadway of Wallage Lane, in order to comply with the relevant requirements of highway legislation – this impacts the RPAs of T1 – T3.
  - The replacement & new surfacing for the internal roadway connecting the new dwelling with the Site exit on Wallage Lane – this impacts the RPAs of T1 – T6.
  - New surfacing surrounding the proposed new dwelling, creating a driveway, parking areas, vehicle maneuvering areas & pedestrian walkways – this impacts the RPA of T6.
  - New walkways throughout areas where new plantings are to occur – this impacts the RPA of T8.
  - ‘No-dig’ steel edging which is to demarcate the edge of the new surfacing & walkways – these will have no impact as they are installed without the need for any excavations.
  - Steel construction continuous ‘Estate’ fencing, to be erected at various locations through the Site & surrounding woodlands, (as yet not determined) – this will have minimal impact & be supervised by the project

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arboriculturalist.

- Log stack walls – as these are to be laid directly onto the ground & are a maximum of 1m in height, these will not detrimentally impact the RPA of the retained tree where there is an impact, T8.
- New tree plantings, (native & fruit trees) – these do not impact the RPAs of any retained trees.
- Replacement planting of juvenile trees located within the designated construction area for the new dwelling, lifted & stored appropriately – these are not recorded on the tree survey as the trees are all less than 150mm DBH & therefore are not categorised in BS:5837.

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*Table 3: Landscaping features, impacts on the RPAs of retained trees & mitigation methodologies:*

| Landscaping feature                               | Tree(s) where RPA is/are impacted | Significance of impact | Mitigation methodology                                                                         |
|---------------------------------------------------|-----------------------------------|------------------------|------------------------------------------------------------------------------------------------|
| New gateway – installation                        | T1, T2, T3                        | Minor                  | Hand-dig operations, supervision by project arboriculturalist                                  |
| Existing internal Roadway – removal & replacement | T1, T2, T3, T4, T5, T6            | Minor                  | Hand-dig operations, supervision by project arboriculturalist                                  |
| New internal roadway installation                 | T6                                | Minor                  | New permanent ground protection, hand-dig operations, supervision by project arboriculturalist |
| New surfacing & pathways, (around new dwelling)   | T6 & T8                           | Minor                  | New permanent ground protection, hand-dig operations, supervision by project arboriculturalist |
| New edging for roadways & pathways                | T1, T2, T3, T4, T5, T6            | n/a                    | Not required                                                                                   |
| Log-stack walls                                   | T6                                | n/a                    | Not required                                                                                   |
| ‘Estate’ steel Fencing                            | Not determined                    | Minor                  | Hand-dig operations, supervision by project arboriculturalist                                  |
| New & replacement tree plantings                  | n/a                               | n/a                    | Not required                                                                                   |

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- 12.2 The design specifications for the new surfacing have not been finalised at this stage of the proposed development, however, any surfacing laid within the RPAs of retained trees must be permeable, allowing the passage of both air & water freely to the roots of retained trees.
- 12.3 The installation methodology for new surfacing within the RPAs of retained trees must follow the principles outlined for the removal of surfacing, as detailed in Section 8, above, but in reverse.
- 12.4 A **'Manual Installation Method'**, using handheld tools. Workers will ensure there is no machine incursion into the RPA of retained trees. The only installations permitted within RPAs of retained trees are those required to install the new landscaping features.
- 12.5 A **'Reach In, Drive Out Method'**, utilising appropriately sized machinery; the machines used must be positioned outside the RPA of retained trees and must deposit base aggregate, (M.O.T.), initially from outside the RPA of retained trees. This material can then be lightly compact using a hand-operated 'whacker plate' only. Once this operation is finished, topping aggregate can be installed. Only when this operation has occurred can the machine then be sited on this newly installed hard surfacing. This can then be repeated until all areas indicated by the design plan have the new or replacement surfacing installed in/on them. At no time are any machines to be sited on unprotected, exposed area of RPAs of retained trees.
- 12.6 The appropriate methodology for the task required should be selected.
- 12.7 The operations to install the new landscaping features within the RPAs of retained trees will be supervised contemporaneously and in person by the Project Arboriculturalist.

## **13.0 Below ground infrastructure within the RPAs**

- 13.1 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.
- 13.2 Where the proposed routing of services impinges upon a tree RPA of any existing tree 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'.
- 13.3 '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.
- 13.4 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 RPA radius beside an existing tree should be avoided, whereby tree roots would

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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.

## 14.0 Above ground protection of retained trees and existing habitats

- 14.1 As per section 8 of the AIA, access facilitation pruning to the sections of canopies overhanging the internal roadway to a height of 5m AGL is recommended.
- 14.2 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.
- 14.3 The Contractor shall train all members of the construction workforce operating within the proximity of valued habitats & 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 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 RPAs of retained trees.
  - Severance of roots exceeding 25 mm in diameter: If unintentionally severed, notice shall be given, & specialist arboricultural advice sought.
  - Changes to the level of the ground within the specified RPAs; &
  - Vegetation clearance to Site boundaries during the bird nesting season (nesting season: March-September inclusive). If such clearance is required and cannot be delayed until nesting season has finished, it must occur under a watching brief from a suitability qualified arboriculturalist / ecologist.

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## 15.0 Arboricultural Supervision

- 15.1 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 TRPP 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 initial tree works are completed, as specified in the AIA and here in this AMS, and to agree any requirements for access

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facilitation pruning which are not anticipated prior to the meeting; &  
III. To sign off that the tree protection barriers have been installed in the correct locations and to the agreed specification.

- During the installation of landscaping features, where relevant, as detailed in Table 3, above, (section 12).
- Post-completion of the proposed development, to ensure that no harm has occurred to retained trees, that the tree protection fencing has been removed & that newly installed or replaced trees are suitably planted. Should any unintended harms have occurred to the trees, the project arboriculturalist will specify remedial actions, or mitigatory consequences.

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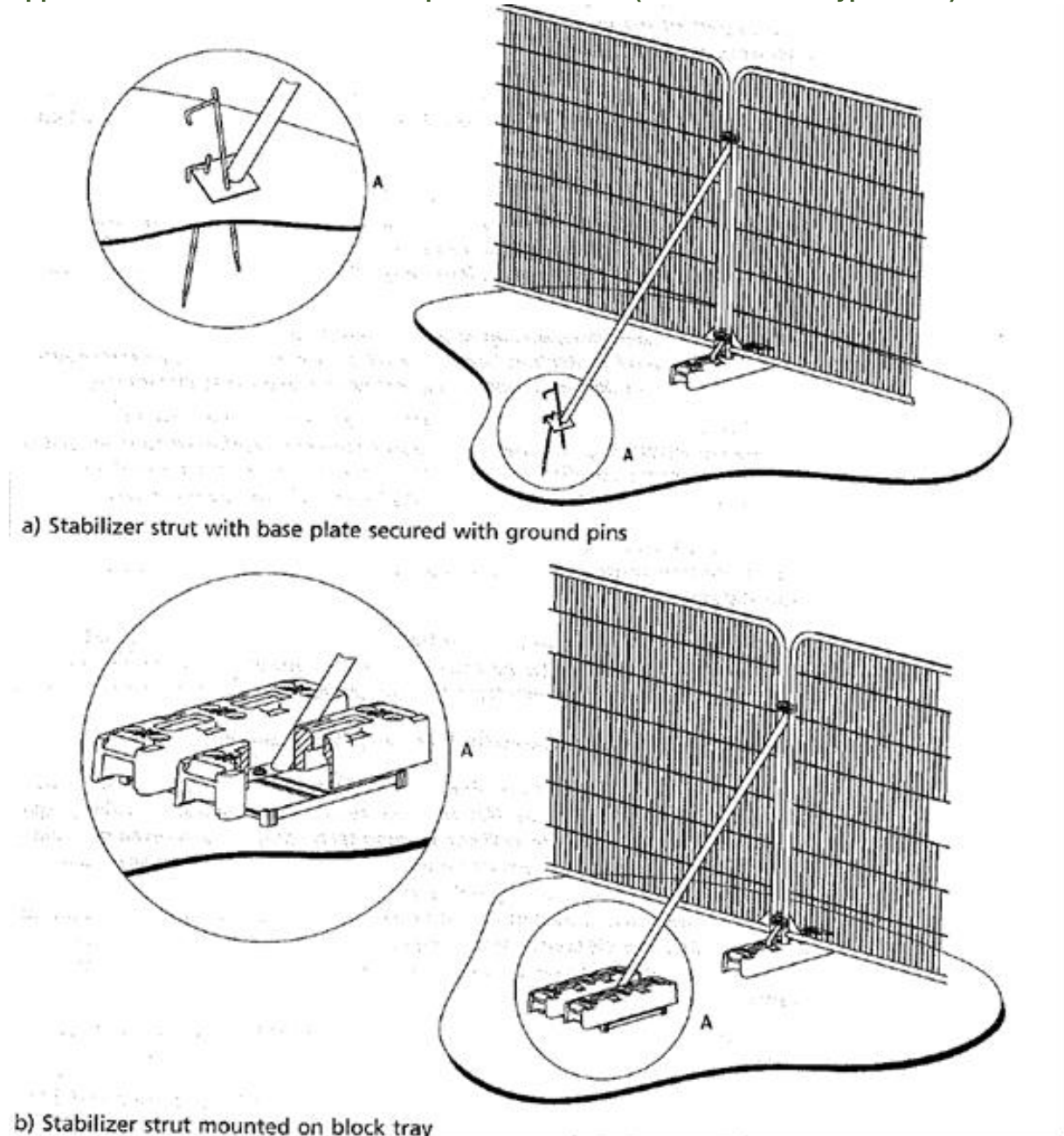
- 15.2 If significant root growth is disturbed during construction activities which is not within the scope of this report, the work must cease until the project arboriculturist is consulted. Roots greater than 25mm in diameter or dense / matted fibrous roots are considered significant root growth. It 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.
- 15.3 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.

## 16.0 Appendices:

- Appendix 1: BS:5837 Recommended protective barrier (Fence A-Herras type fence).
- Appendix 2: BS:5837 Recommended tree protection signage.
- Appendix 3: Tree Retention & Protection Plan.
- Appendix 4: Specifications for landscaping features: 'Estate' fencing; steel edging; log-stack walls
- Appendix 5: Specifications for permanent ground protection
- Appendix 6: Report Limitations (continued).
- Appendix 7: Glossary of terms / key to interpreting arboricultural data.
- Appendix 8: Summary of the author's qualifications and experience.

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



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

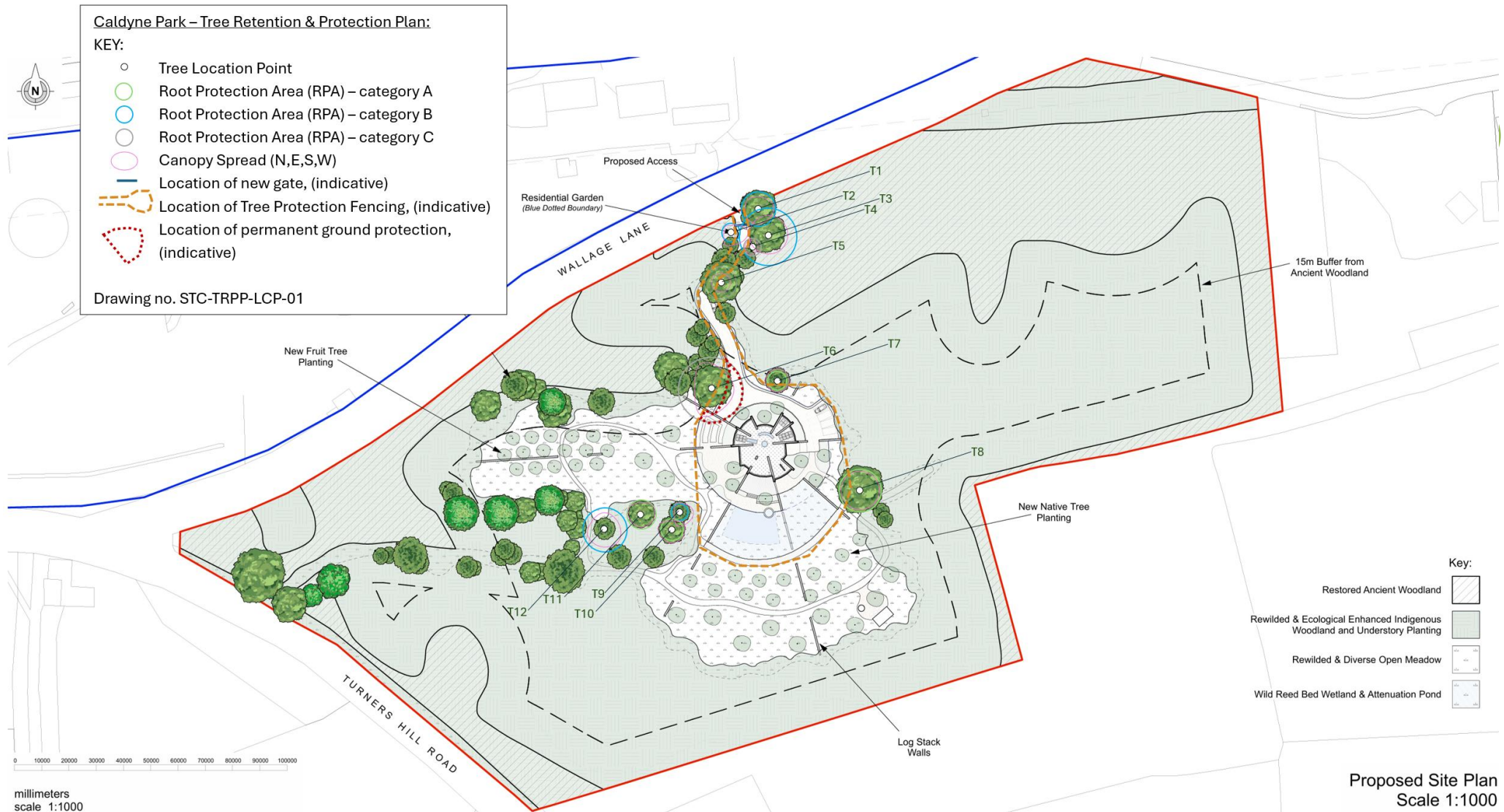


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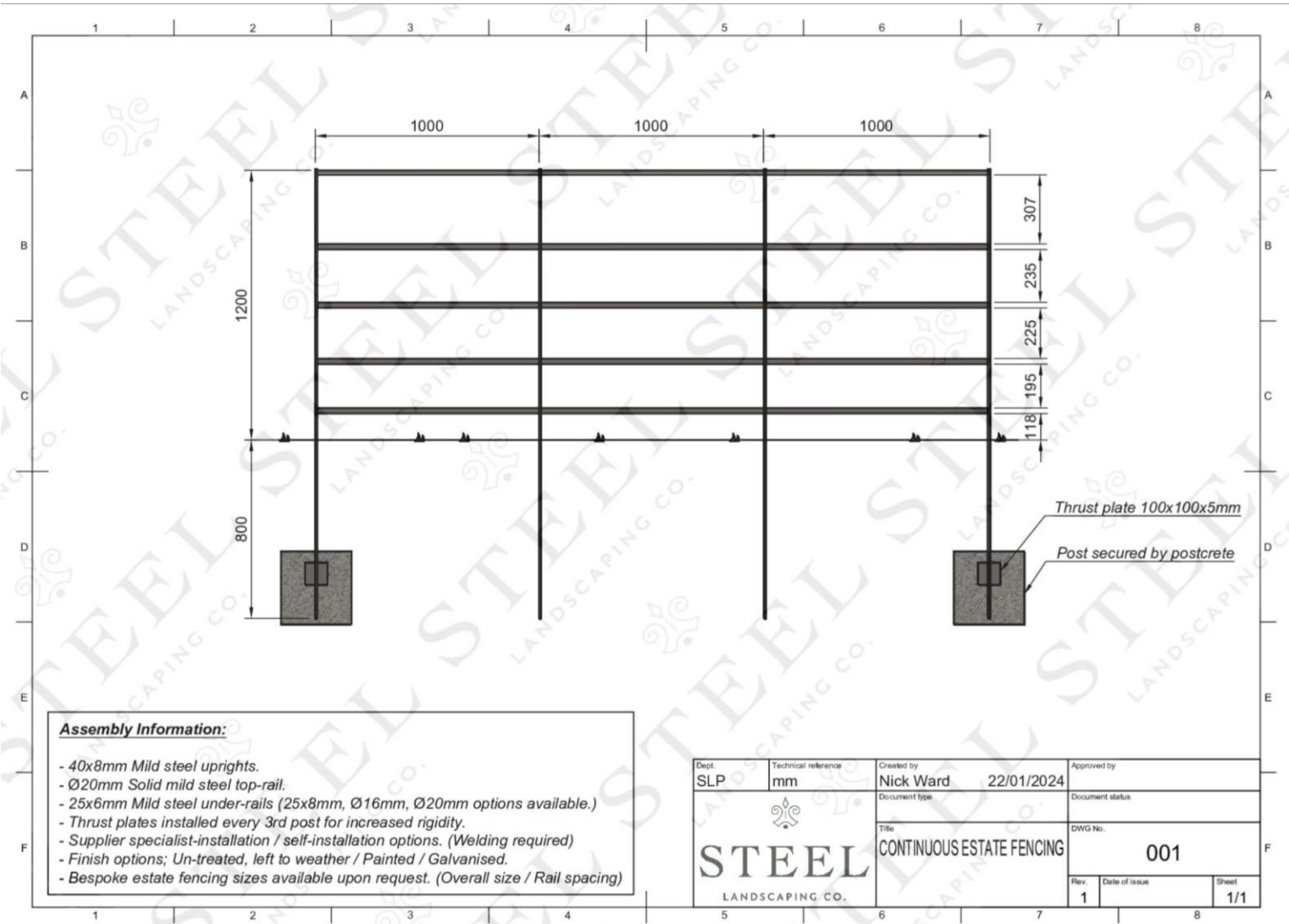
## Appendix 3: Tree Protection Plan:



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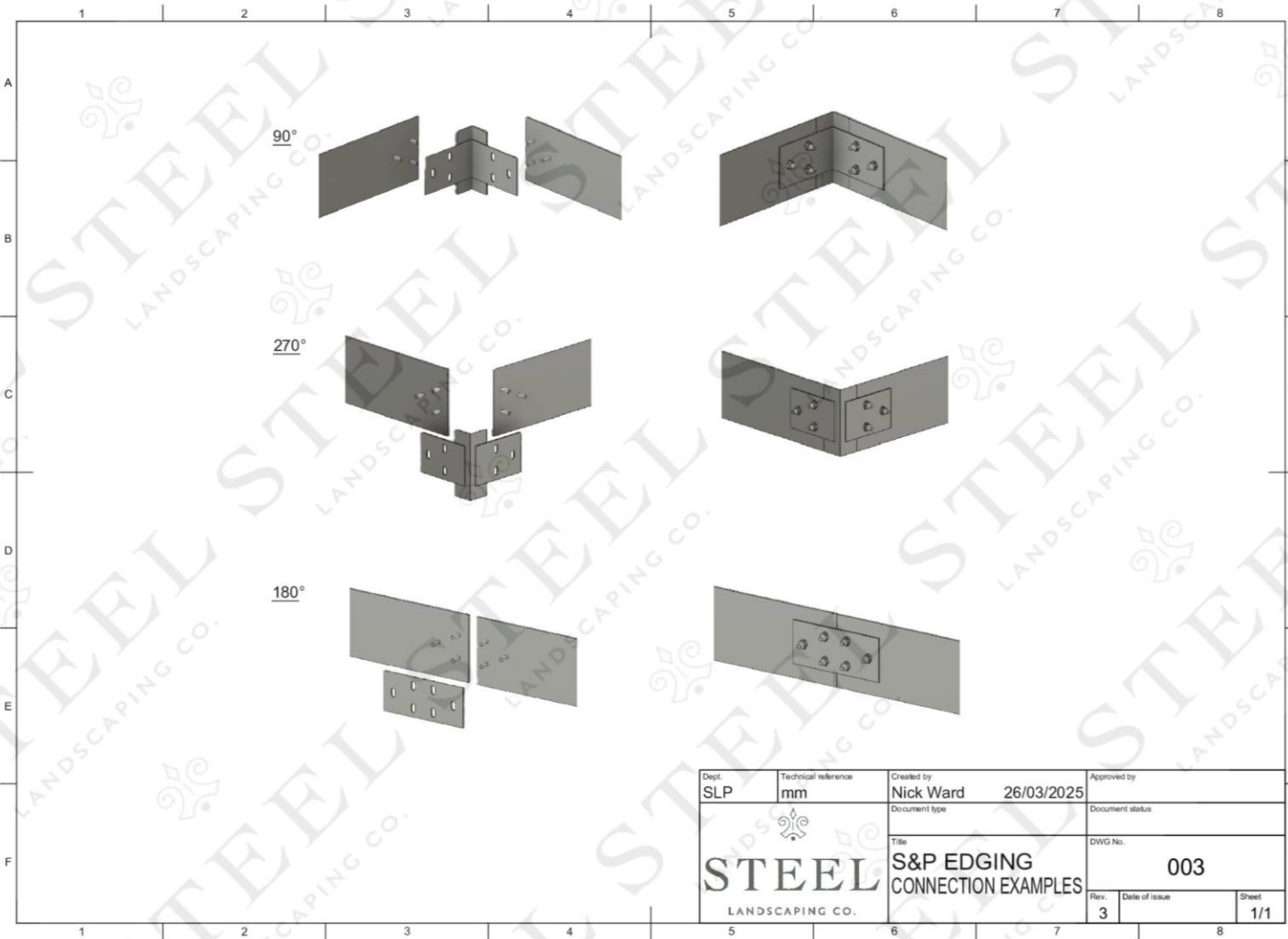
## Appendix 4: Detailed specifications for landscaping features: a. 'Estate' fencing



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## b. Edging:



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## c. Log-stack walls:

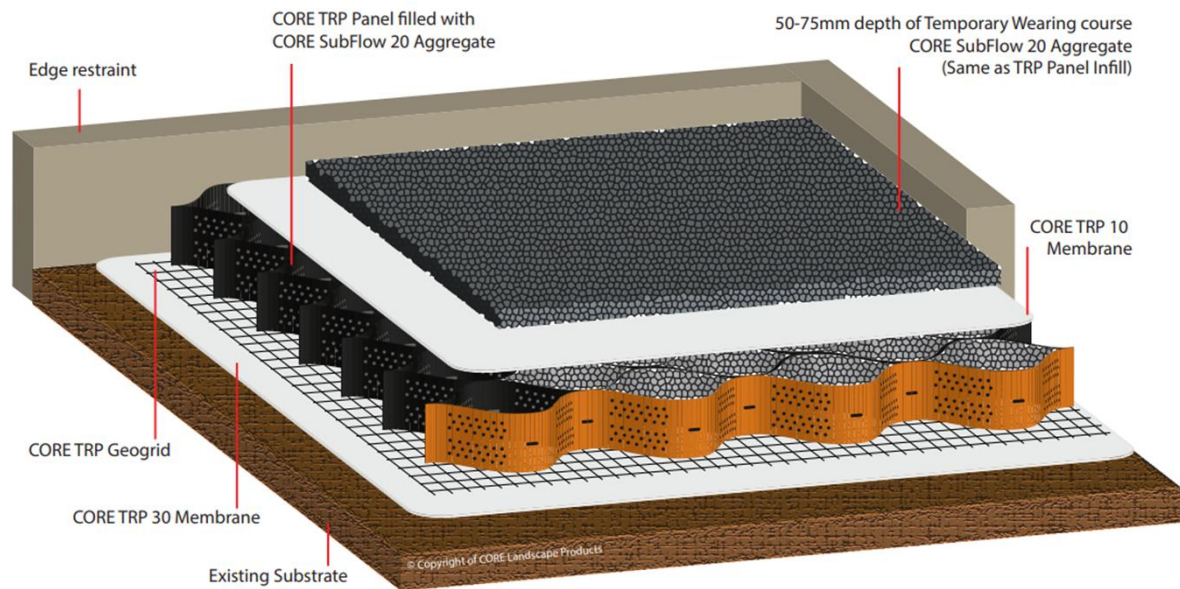


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## Appendix 5: Detailed specifications for permanent ground protection:



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## Appendix 6: 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.
- 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 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 checking information was accessed and it shows that there are statutory protections to trees at the Site; it is covered by a TPO and it is subject to Conservation Area status.
- 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

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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 3<sup>rd</sup>-party not directly involved with the development project unless permission is sought and obtained from The Sussex Tree Company.

## Appendix 6: 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 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](https://en.wikipedia.org/wiki/Ganoderma_applanatum)

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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](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.

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 8: 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 for Assessor for the Approved Contractor Scheme, (Amenity)

Assessor for the Level 4 qualification at Tree Life AC

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)

Highways England Passport Holder

## ii. Practical/relevant experience

Assessor for the Arboricultural Association's Approved Contractor scheme

10 years as a practicing Arboricultural Consultant

4.5 years at director level as an Arboricultural Director

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.

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:

- Taught sessions for Thorough Inspection of LOLER equipment, (Arboriculture)
- 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;

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- 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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## The Sussex Tree Company:

We are providers of specialist services to the Arboricultural and Development industries in the UK:

**Arboricultural Consultancy:** all requirements are serviced.

**Business-to-business advice and assistance for the arboricultural industry:**

- For achieving compliance and award of Arboricultural Association approved contractor status
- For developing efficient and ergonomic business systems
- For developing efficient and intuitive financial reporting and management systems

All of the 3 service offerings improve businesses and generate increased growth in revenues, profits and in professionalism.

**Development and Construction:** we are a 'single-point of contact' for all tree-related requirements; from design/pre-planning to post-handover.

Visit our website at [www.thesussextreecompany.co.uk](http://www.thesussextreecompany.co.uk) for a comprehensive overview.

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