



**Tree Survey, Arboricultural Impact Assessment  
Preliminary Arboricultural Method Statement & Tree Protection Plan  
In Accordance with BS 5837:2012**

|                         |   |                                    |          |
|-------------------------|---|------------------------------------|----------|
| Proj. No<br><b>9372</b> | <b>Pratts Green Farmhouse, Maltings End, Kirtling, Suffolk, CB8 9HH</b> |                                    |          |
| Client:                 |   | Richard Lawton c/o Snell David Ltd |          |
| Date of Report:         | 10/03/2022  | Revision:                          | Original |

# **Tree Survey, Arboricultural Impact Assessment, Preliminary Arboricultural Method Statement & Tree Protection Plan – In Accordance with BS 5837:2012**

## **Summary**

The purpose of this report is to provide a preliminary consideration of the arboricultural implications created by the proposed development. In accordance with the feasibility and planning sections of BS5837:2012 “*Trees in relation to design, demolition and construction – Recommendations*”, trees deemed to be within the influencing distance of the projected construction have been evaluated for quality, longevity, and initial maintenance requirements. Where trees do not have to be removed for health and safety reasons, a detailed and objective assessment has been made of the consequences of the intended layout.

In this circumstance it is intended to demolish a section of the existing building and all of the garage which is located on the eastern aspect. Once the demolition has been completed the construction of a new extension will be undertaken. As a result, seventeen individual trees, one area of trees and two hedges were inspected. The arboricultural related implications of the proposal are as follows:

- 1 It is not necessary to fell any individual trees or landscape features in order to achieve the proposed layout. One tree does require minor surgery to permit construction space or access.
- 2 Four trees have been identified for removal irrespective of any development proposals.
- 3 The alignment of proposed extension does not encroach within the Root Protection Areas of any trees that are to be retained. In view of this, and as assessed in accordance with BS5837:2012, no specialist foundation designs or construction techniques will be required to prevent damage to tree roots. Specialist foundations may still be required for other reasons, including mitigating the influencing distance of tree roots, subject to expert advice from a structural engineer.
- 4 This report recommends that specialist advice is obtained by expert practitioners in other disciplines. Such input should always be sought prior to the submission of this report in support of a planning application in order to demonstrate that the techniques and methods hereby proposed are achievable. In this particular circumstance it is necessary to contact the following:  
  
Structural Engineer (foundation design, item 4.4.1)
- 5 All trees and landscape features that are to remain as part of the development should suffer no structural damage provided that the findings with this report are complied with in full. This includes ensuring that protective fencing is erected as detailed at items 4.6 and 5.1 of this report.



- 6 Post Planning Permission – Subject to achieving Planning Permission, a detailed Arboricultural Method Statement and Tree Protection Plan will be required. This will include the following: fencing type, access facilitation pruning specification, phasing and an auditable monitoring schedule.

Given the above, there are no overt or overwhelming arboricultural constraints that can be reasonably cited to preclude the proposed construction.



# Contact Details

| Client – Richard Lawton c/o Snell David Ltd                                  |                                 |                               |            |
|--|---------------------------------|-------------------------------|------------|
| <b>Address</b><br>73 Lightman's Walk<br>Point Pleasant<br>London<br>SW18 1PS | <b>Contact</b><br>Mr Alan Smith | <b>Tel:</b><br><b>E-mail:</b> | [REDACTED] |

| Local Planning Authority – East Cambs District Council                           |  |                               |            |
|--|--|-------------------------------|------------|
| <b>Address</b><br>The Grange<br>Nutholt Lane<br>Ely<br>Cambridgeshire<br>CB7 4PL | <b>Trees Officer</b><br>Mr Kevin Drane | <b>Tel:</b><br><b>E-mail:</b> | [REDACTED] |

| Arboricultural Consultant – Hayden's Arboricultural Consultants Limited   |  |                               |            |
|---|--|-------------------------------|------------|
| <b>Address</b><br>5 Moseley's Farm<br>Business Centre<br>Fornham All Saints<br>Bury St Edmunds<br>Suffolk<br>IP28 6JY | <b>Report Author:</b><br>Mr Matthew Plane-<br>Da'Silva | <b>Tel:</b><br><b>E-mail:</b> | [REDACTED] |



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# 1.0 Introduction

## 1.1 Terms of Reference

1.1.1 Hayden's Arboricultural Consultants Limited has been commissioned by Richard Lawton c/o Snell David Ltd to prepare a Tree Survey, Arboricultural Impact Assessment, Preliminary Arboricultural Method Statement and Preliminary Tree Protection Plan for the existing trees at Pratts Green Farmhouse, Maltings End, Kirtling, Suffolk, CB8 9HH.

1.1.2 The site survey was carried out on 23/02/2022. The relevant qualitative tree data was recorded in order to assess the condition of the existing trees, their constraints upon the prospective development and the necessary protection and construction specifications required to allow their retention as a sustainable and integral part of the completed development.

1.1.3 Information is given on condition, age, size and indicative positioning of all the trees, both on and affecting the site. This is in accordance with the British Standard 5837:2012 *Trees in relation to design, demolition and construction - Recommendations*.

## 1.2 Scope of Works

1.2.1 The survey of the trees and any other factors are of a preliminary nature. The trees were inspected on the basis of the Visual Tree Assessment (VTA) method as developed by Mattheck and Breloer (1994). The trees were inspected from ground level with no climbing inspections undertaken. It is not always possible to access every tree and as such some measurements may have to be estimated. Trees with estimated measurements are highlighted in the schedule of trees. No samples have been removed from the site for analysis. The survey does not cover the arrangements that may be required in connection with the removal of existing underground services.

1.2.2 Whilst this is an arboricultural report, comments relating to non arboricultural matters are given, such as built structures and soil data. Any opinion thus expressed should be viewed as provisional and confirmation from an appropriately qualified professional sought. Such points are clearly identified within the body of the report.

1.2.3 An intrinsic part of tree inspection in relation to development is the assessment of risk associated with trees in close proximity to persons and property. Most human activities involve a degree of risk with such risks being commonly accepted, if the associated benefits are perceived to be commensurate. In general, the risk relating to trees tends to increase with the age of the trees concerned, as do the benefits. It will be deemed to be accepted by the client that the formulation of the recommendations for all tree management will be guided by the cost-benefit analysis (in terms of amenity), of the tree work.

## 1.3 Documentation

1.3.1 The following documentation was provided prior to the commencement of the production of this report;

Email of instruction by Alan Smith dated 28<sup>th</sup> January 2022  
Definition of site boundary  
Description of requirements/deadlines  
Topographical survey/map  
Proposed site layout



## 2.0 The Site

### 2.1 Overview

2.1.1 The site is Pratts Green Farmhouse, Maltings End, Kirtling, Suffolk, CB8 9HH.

### 2.2 Soils

2.2.1 The soils type commonly associated with this site are lime rich loams and clays with impeded drainage. They are of high fertility and support base-rich pastures, and classic 'chalky boulder clay' ancient woodland type habitats. This soil type constitutes approximately 5.3% the total English land mass.

2.2.2 The data given was obtained from a desk top study which provides indications of likely soil types. By definition, this information is not comprehensive and therefore any decisions taken with regards the management, usage or construction on site should be based on a detailed soil analysis.

2.2.3 Further to item 2.2.2, this report provides no information on soil shrinkability. It may be necessary for practitioners in other disciplines (e.g. engineers considering foundation design) to obtain this data as required.

### 2.3 Statutory Tree Protection

2.3.1 Hayden's Arboricultural Consultants Limited have been unable to ascertain whether the trees identified within this report are covered by local planning authority administered statutory tree protection. In view of this, owners, managers or any persons wishing to undertake work to any trees should contact the local planning authority East Cambs District Council, to ensure no such protection measures exist.

#### 2.3.2 Felling Licence

All trees within the United Kingdom are protected under the Forestry Acts. In general, anyone felling more than 5 cubic metres of timber in any calendar quarter requires a Felling Licence from the Forestry Commission. There are exemptions however and these are as follows:-

A Felling Licence is not required in the following instances:

To fell trees in a garden, an orchard, a churchyard, or a designated open space (Commons Act 1899).

To carry out surgery operations such as pruning, reduction, dead wooding or pollarding.

To fell less than 5 cubic metres in a calendar quarter. (Please note that not more than 2 cubic metres in a calendar quarter may be sold).

To fell trees that are 8 centimetres or less in diameter when measured 1.3 metres from the ground. Trees removed for thinning may have a diameter of up to 10 centimetres and trees managed under a coppice regime may have a diameter of up to 15 centimetres.

To fell trees previously approved for removal under a Dedication Scheme, or where Detailed Planning Permission has been granted.

Substantial fines exist for not complying with the requirements of a Felling Licence.



## 3.0 Tree Survey

- 3.1 As part of this survey a total of seventeen individual trees, one area of trees and two hedges have been identified. These have been numbered T001 – T017, A001 and H001 – H002 respectively.
- 3.2 A topographical survey was provided which showed the position of the trees on site. It should be noted however that topographical surveys are not always comprehensive and sometimes it is considered appropriate to record details of trees and landscape features omitted from or beyond the scope of the plan. If this circumstance occurs, the location of the individual tree or landscape feature is estimated. The position of each tree is shown on the attached drawing no. 9372-D-AIA.
- 3.3 In order to provide a systematic, consistent and transparent evaluation of the trees included within this survey, they have been assessed and categorised in accordance with the method detailed in item 4.3 of *BS 5837:2012 "Trees in Relation to Design, Demolition and Construction - Recommendations"*. For further information, please see the attached Explanatory Notes.
- 3.4 The detailed assessment of each tree and its work requirements with priorities are listed in the attached Schedule of Trees.
- 3.5 Several items would benefit from tree surgery or additional investigation, be it for health and safety, cultural, aesthetic, or structural reasons as detailed in the attached Schedule of Trees. Including the trees recommended for felling, the items requiring the **most urgent** intervention are as follows:

Within six months:

|             |  |
|-------------|--|
| <b>A001</b> | Remove hanging branches from affected trees. |
| <b>T013</b> | Fell.  |
| <b>T014</b> | Fell.  |
| <b>T015</b> | Fell.  |
| <b>T016</b> | Pollard to approximately 8 metres.           |

- 3.6 Over and above the general and prudent recommendation that all trees are inspected on an annual basis, the following items have been identified as requiring enhanced monitoring to assess any changes in faults and weaknesses etc as detailed in the Schedule of Trees:

|             |   |
|-------------|---|
| <b>T017</b> | Monitor trees condition for signs of deterioration. |
|-------------|---|

- 3.7 In accordance with item 4.2.4 (c) of BS 5837:2012, the items inspected and detailed within this report have been selected for inclusion due to the likely influence of any proposed development on the trees, rather than strictly adhering to the curtilage of the site. However, it must be understood that there may be trees beyond the site and not included in this survey which may exert an influence on the development. Where works for cultural, health and safety, quality of life, or development purposes have been recommended on trees outside the ownership of the site, these can only progress with the agreement of the owner, except where it involves portions of the trees overhanging the boundary.





## **4.0 Arboricultural Impact Assessment**

### **4.1 The Proposal**

4.1.1 The proposal is to demolish a section of the existing building and all of the garage which is located on the eastern aspect. Once the demolition has been completed the construction of a new extension will be undertaken

### **4.2 Access**

4.2.1 Site access is encumbered by the theoretical Root Protection Area (RPA) of the following retained tree – T001. In this case the RPA is safeguarded by existing compacted ground which is already used by regular vehicle activity therefore from a purely arboricultural perspective, it will not be necessary to install a proprietary temporary load bearing road to protect tree roots.

### **4.3 Demolition**

4.3.1 Demolition of existing structures or the removal of hard surfaces does not impact on the RPA of any retained trees. Therefore, other than the provision of protective fencing, no additional specialist protection measures are required.

### **4.4 Construction**

4.4.1 Construction of foundations or structural supports do not encroach within the Root Protection Area (RPA) of any trees to be retained. Therefore from an arboricultural perspective, no specialised construction or foundation techniques will be required to protect tree roots. However, dependent on the soil type, species and topography, trees may have an influence on the soil beyond their calculated RPA. Given the proximity of the proposed construction to the trees to be retained, it is recommended that a Structural Engineer is consulted to assess the implications of the tree retention on the required foundation design.

4.4.2 Installation of new hard surfaces does not encroach within the RPA of any retained trees. Therefore, and from a purely arboricultural perspective, it will not be necessary for these items to be of specialist design.

4.4.3 Excavation and soil re-modeling is not shown to encroach within the RPA of any retained trees. Therefore, no adverse arboricultural implications are expected.

### **4.5 Implications of Sloping Ground**

4.5.1 The arboricultural implications of the proposed structures are based on an assumption that because there are no significant existing slopes on site, level changes will not occur within the RPA of trees that are shown to be retained.

### **4.6 Requirement for Tree Barrier Fencing**

4.6.1 Prior to the commencement of demolition or construction and immediately after the completion of the necessary tree surgery and felling work, protective fencing will be erected on site. This must be fit for purpose (including any ground protection if necessary) in full accordance with the requirements of BS 5837:2012 and positioned as shown on the attached Preliminary Arboricultural Impact Assessment & Tree Protection drawing. Full details of fencing will be supplied by Hayden's Arboricultural Consultants in the detailed Arboricultural Method Statement & Tree Protection Plan.



#### 4.7 Compound

4.7.1 The site provides adequate internal space to locate a construction compound outside the RPA of any trees and landscape features that are to be retained.

#### 4.8 Phasing

4.8.1 The proposal involves the integration of a number of aspects that affect tree protection (e.g. – but not exclusively –, movement of materials and the installation of fencing). For this reason, the project must be phased to ensure the highest level of protection for retained trees at all times. As part of the detailed Arboricultural Method Statement & Tree Protection Plan, Hayden’s Arboricultural Consultants will produce an in-depth phasing recommendation to cover the major operations on site as they affect retained trees.

#### 4.9 Monitoring

4.9.1 In accordance with item 6.3 of BS 5837:2012, the site and associated development should be monitored regularly by a competent Arboriculturalist to ensure that the arboricultural aspects of the planning permission are complied with. As part of the detailed Arboricultural Method Statement & Tree Protection Plan, Hayden’s Arboricultural Consultants will produce an extensive auditable monitoring schedule to assess the progress of key site events/activities.

#### 4.10 Tree Surgery to Facilitate Proposed Development

4.10.1 In order to enable the proposed development it will be necessary to undertake the following tree surgery works to retained trees: -

| Feature No. | Description of Works Required.   | BS Category* |
|-------------|--|--------------|
| T001        | Undertake a crown raise to 3m on the western aspect to allow adequate clearance into site. | B            |

#### 4.11 Landscape Implications

4.11.1 Other than the trees and landscape features necessitating removal for health and safety, cultural or quality of life reasons, (as detailed in the attached Schedule of Works - Irrespective of Development) no trees or landscape features have been identified for felling for the sole purpose of achieving the proposed layout.

#### 4.12 Post Development Implications

4.12.1 No adverse arboricultural implications are considered reasonably foreseeable for the trees that remain provided that the recommendations of this report are complied with in full.

4.12.2 Due to the dynamic nature of trees and their interaction with the environment, their health and structural integrity is liable to change over time. Because of this it is recommended that all trees on or adjacent to the site be inspected on an annual basis.



4.12.3 As stated in BS 5837:2012, regular maintenance of newly planted trees is of particular importance for at least three years during the critical post-planting period and might, where required by site conditions, planning requirements or legal agreement, be necessary for five years or more. Therefore, the designer of the new landscaping should, in conjunction with the landscape design proposals, prepare a detailed maintenance schedule covering this period, and appropriate arrangements made for its implementation.

## **5.0 Design Advice, Preliminary Arboricultural Method Statement & Tree Protection Plan**

### **5.1 Securing of Tree Structure and Root Protection Areas (RPA)**

5.1.1 The trees to be retained will be protected by the use of stout barrier fencing erected in the positions indicated on the attached Preliminary Arboricultural Impact Assessment & Tree Protection drawing no. 9372-D-AIA. This fencing will be in accordance with the requirements of BS 5837:2012 including any necessary ground protection.

5.1.2 All fencing provided for the safeguarding of trees will be erected prior to any demolition or development commencing on the site, therefore ensuring the maximum protection. This fencing, which must have all weather notices attached stating "Construction Exclusion Zone – No Access" will be regarded as sacrosanct and, once erected, will not be removed or altered without the prior consent of the Local Planning Authority.

### **5.2 Location of Site Office, Compound and Parking**

5.2.1 The position of the office, compound and parking will be agreed in writing with the Local Planning Authority prior to commencement of any permitted development works. Any proposed re-location of these items through the various phases of development will be agreed prior to re-siting with the Local Planning Authority.

### **5.3 On Site Storage of Spoil and Building Materials**

5.3.1 Prior to and during all construction works on site, no spoil or construction materials will be stored within the RPA of any tree on, or adjacent to the site, even if the proposed development is to be within the RPA. This is to reduce to a minimum the compaction of the roots of the trees. Details of the RPA for each tree where no spoil or building materials will be stored are indicated on the attached Preliminary Arboricultural Impact Assessment & Tree Protection drawing no. 9372-D-AIA. Any encroachment within this protected area will only be with the prior agreement of the Local Planning Authority.

5.3.2 Any facilities for the storage of oils, fuels or chemicals shall be sited on impervious bases and surrounded by impervious bund walls. The volume of the bund compound shall be at least equivalent to the capacity of the tank plus 10%. If there is a multiple tankage, the compound shall be at least equivalent to the capacity of the largest tank, or the combined capacity of interconnected tanks, plus 10%. All filling points, vents, gauges and sight glasses shall be located within the bund. The drainage system of the bund shall be sealed with no discharge to any watercourse, land or underground strata. Associated pipe-work shall be located above ground and protected from accidental damage. All filling points and tank overflow pipe outlets shall be detailed to discharge downwards into the bund.



5.3.3 All material storage facilities and work areas must consider the effects of sloping ground on the movement of potentially harmful liquid spillages towards or into protected areas.

#### 5.4 **Programme of Works**

5.4.1 All tree surgery works, once approved by the Local Planning Authority, will be carried out prior to any other site works. Once completed, the proposed protective fencing will be erected along the lines indicated above. All of this will be carried out prior to commencement of any development works on the site. Outline details of the proposed programme are given in the Design and Construction and Tree Care flow chart attached (Appendix F-1).

#### 5.5 **Tree Surgery**

5.5.1 All tree work will be agreed with the Local Planning Authority and will be carried out in line with BS 3998:2010 (Recommendations for Tree Works). An appropriately qualified, experienced and insured arboricultural contractor will carry out the work. Any alterations to the proposed schedule of works will be agreed with the Local Planning Authority prior to commencement of works.

#### 5.6 **Levels**

5.6.1 Other than for any specific exception which may be referred to at item 4.0, no alterations to soil levels within the RPA of retained trees are envisaged. However, if it is necessary for these to occur, appropriate measures must be taken to prevent or minimise any detrimental effects on the affected root systems as detailed in 5.6.2 and 5.6.3 below.

5.6.2 If it is necessary to excavate so close to trees that roots greater than 50mm diameter are likely to be encountered, particular care will be taken to avoid damage. Excavation in these areas will be undertaken by hand or using an air spade, avoiding any damage to the bark. The roots will be surrounded with sharp sand prior to the replacing of any soil or other material in the vicinity.

5.6.3 If it is necessary to raise levels, it is essential that adequate supplies of water and oxygen pass through the soil to the trees' roots. Therefore, where necessary, a granular material will be used which will not inhibit gaseous diffusion. Possible options are no-fines gravel, cobbles or, Type 2 road-stone. All hard surfaces will be of suitable specification to allow such gaseous diffusion, e.g. brick pavers.

#### 5.7 **Services**

5.7.1 At the time of writing this report, no details on proposed services were available. However, the following principles should be adhered to when planning for their installation.

5.7.2 It is proposed that all underground service runs will be placed outside the RPA of the trees on or adjacent to the site. Where it is not possible to do this, the proposed length infringing the RPA will be hand dug 'broken trenches' (NJUG 4 paragraph 4) to ensure the maximum protection of the trees' roots. The trenches may also be excavated using an air spade, or trenchless technology can be employed if this methodology is considered appropriate by the relevant service company (thus allowing services to pass below and through the roots without the need for traditional excavation). If it is necessary to cut any small roots as part of any of these processes, they should be severed in such a way as to ensure that the final wound is as small as possible and free from ragged, torn ends.



- 5.7.3 All routes for overhead services will aim to avoid the trees. Where this is not possible, any tree work will be agreed prior to commencement with the Local Planning Authority.
- 5.7.4 All service providers (Statutory Authorities) will be consulted prior to commencement of works with the aim of minimising the number of service runs on the site.
- 5.7.5 All service runs/trenches where they encroach within the RPA of retained trees will be agreed with the Local Planning Authority prior to commencement of works.

#### **5.8 Hard Surface Types & Construction within the Root Protection Area**

- 5.8.1 If boundary fencing is to be erected within the RPA of retained trees, it is proposed that the fence posts will be secured by the use of “Met-Posts” or similar design in order to keep the disturbance and damage of the roots of the trees to a minimum.

#### **5.9 Reporting and Monitoring Procedures**

- 5.9.1 In accordance with item 6.3 of BS 5837:2012, the site and associated development should be monitored regularly by a competent arboriculturalist to ensure that the arboricultural aspects of the planning permission (e.g. the installation and maintenance of protective measures and the supervision of specialist working techniques) are implemented. Furthermore, regular contact between the Site Manager and the Arboriculturalist allows them to effectively deal with and advise on any tree related problems that may occur during the development process. This system should be auditable. Should any issues arise during the arboricultural monitoring of the development the Arboriculturalist will contact the Local Planning Authority and appropriate action taken only with the prior permission of Richard Lawton c/o Snell David Ltd and the Local Planning Authority.



## 6.0 Recommendations

- 6.1 It is recommended that the measures outlined in this report are implemented in full to provide retained trees with the highest level of protection during the process of demolition and construction.
- 6.2 Subject to achieving Planning Permission, it is recommended that a detailed Arboricultural Method Statement & Tree Protection Plan should be provided. This will include the following: fencing type, access facilitation pruning specification, project phasing and an auditable monitoring schedule.
- 6.3 Tree surgery should be completed as detailed in the Schedule of Trees. Where this has been identified for reasons other than to permit development, this work should be completed within the advised timescales irrespective of any development proposals.
- 6.4 The tree surgery works proposed as part of this Survey are recommended to mitigate any identified problems that may be caused by trees in close proximity to the proposed development. To this end, should these recommendations be overruled, this Survey stands as the opinion of Hayden's Arboricultural Consultants Limited, and therefore any damage or injury caused by trees recommended by this practice for felling or tree surgery works, to which the proposed schedule of works has been altered or the tree has been requested to be retained by the Local Planning Authority, cannot be the responsibility of this practice.



## 7.0 Limitations & Qualifications

Tree inspection reports are subject to the following limitations and qualifications.

### General exclusions

Unless specifically mentioned, the report will only be concerned with above ground inspections. No below ground inspections will be carried out without the prior confirmation from the client that such works should be undertaken.

The validity, accuracy and findings of this report will be directly related to the accuracy of the information made available prior to and during the inspection process. No checking of independent third-party data will be undertaken. Hayden's Arboricultural Consultants Limited will not be responsible for the recommendations within this report where essential data are not made available or are inaccurate.

This report will remain valid for one year from the date of inspection subject to the recommendations specified within being adhered to. It must also be appreciated that recommendations proposed within this report may be superseded by extreme weather, or any other unreasonably foreseeable events.

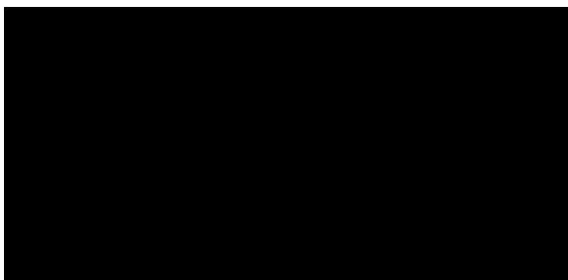
However, if any additional alterations to the property or soil levels are carried out and/or further tree works undertaken other than specified within the report, it will become invalid and a new tree inspection strongly recommended.

It will be appreciated, and deemed to be accepted by the client and their insurers, that the formulation of the recommendations for the management of trees will be guided by the following: -

1. The need to avoid reasonably foreseeable damage.
2. The arboricultural considerations - tree safety, good arboricultural practice (tree work) and aesthetics.

The client and their insurers are deemed to have accepted the limitation placed on the recommendations by the sources quoted in the attached report. Where sources are limited by time constraints or the client, this may lead to an incomplete quantification of the risk.

**Signed:**



**March 2022.....**

**For and on Behalf of Hayden's Arboricultural Consultants Limited**



## 8.0 References

British Standards Institute. (2010). *Recommendations for Tree Work BS 3998:2010* BSI, London.

British Standards Institute. (2012). *Trees in Relation to Design, Demolition and Construction – Recommendations BS5837:2012* BSI, London.

Ministry of Housing, Communities & Local Government. (2014). *Tree Preservation Orders and trees in conservation areas*. London: Ministry of Housing, Communities & Local Government.

Mattheck & Breloer, H. (1994). *Research for Amenity Trees No.4: The Body Language of Trees*, HMSO, London.

NHBC Standards (2007) *Chapter 4.2 'Building Near Trees'*. National House-Building Council.

NJUG 4 Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees. Issued 16 November 2007.

Forestry Commission (2007). *Tree Felling – Getting Permission*. Country Services Division, Forestry Commission, Edinburgh.

Patch, D. Holding, B. (2006) *Arboricultural Practice Note 12 (APN12), Through the Trees to Development*. Arboricultural Advisory and Information Service (AAIS).

Lonsdale, D. (1999). *Research for Amenity Trees No 7: Principles of Tree Hazard Assessment and Management*, HMSO, London.





## 9.0 Appendices

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## Appendix A - Species List & Tree Problems

### Species List:


|                   |                                  |
|-------------------|----------------------------------|
| Apple             | <i>Malus</i>                     |
| Ash               | <i>Fraxinus excelsior</i>        |
| Beech             | <i>Fagus sylvatica</i>           |
| Blackthorn        | <i>Prunus spinosa</i>            |
| Cherry            | <i>Prunus</i>                    |
| English Elm       | <i>Ulmus minor var. vulgaris</i> |
| English Oak       | <i>Quercus robur</i>             |
| Field Maple       | <i>Acer campestre</i>            |
| Magnolia          | <i>Magnolia</i>                  |
| Norway Maple      | <i>Acer platanoides</i>          |
| Silver Birch      | <i>Betula pendula</i>            |
| Variiegated Holly | <i>Ilex altacierensis</i>        |
| Whitebeam         | <i>Sorbus Aria</i>               |
| Willow            | <i>Salix</i>                     |

### Tree Problems:

This gives a brief description of the problems identified in the attached Tree Survey.

|  |   |
|--|---|
| <b>Name: Deadwood</b>                  |   |
| <b>Symptoms/damage type and cause:</b> | This relates to dead branches in the crown of the tree. In the majority of cases, this is caused by the natural ageing process of the tree or shading due to its close proximity to neighbouring trees. However, in some situations, it may be related to fungal, bacterial or viral infection. |
| <b>Consequence:</b>                    | Depending upon the location and mass of dead wood removal of the affected tissue may be necessary to prevent harm to persons or property as the wood will become unstable as it decays and in some circumstances is likely to fall from the tree with little or no warning.                     |
| <b>Control:</b>                        | Detailed monitoring should be undertaken on those trees showing signs of excessive deadwood production to identify the underlying cause.  |
| <b>Species affected:</b>               | Most tree species.  |
| <b>Images:</b>                         |   |



|  |  |
|--|--|
| <b>Name:</b> <i>Hedera helix</i> (Ivy) |  |
| <b>Symptoms/damage type and cause:</b> | Ivy may grow to varying degrees on all areas of a tree from the base to the upper crown. It is possible that in doing so it will out-compete the host tree for available light thereby suppressing the host.   |
| <b>Consequence:</b>                    | This is generally only harmful to the tree on already unhealthy specimens which may be constricted by large ivy stems around the trunk or may have their top growth suppressed by a mass of flowering shoots in the crown. Ivy can also mask potentially dangerous faults on a tree.   |
| <b>Control:</b>                        | Ivy should only be removed if absolutely necessary because it provides abundant cover to wildlife and then by severing twice close to the ground and removing a length of stem thereby causing the gradual dying away of the aerial parts of the plant providing extended benefit to wildlife whilst relieving the pressure on the tree. |
| <b>Species affected:</b>               | Most trees can be affected.  |
| <b>Images:</b>                         |    |

|   |  |
|---|--|
| <b>Name:</b> <i>Phellinus pomaceus</i> (Cushion Fungus) |  |
| <b>Symptoms/damage type and cause:</b>                  | Fungus causing heart rot to the stems and branches on rosaceous trees. The fungus causes white rot with wood becoming brittle and then later soft. |
| <b>Consequence:</b>                                     | The consequence will often be a brittle stem fracture, usually near the fruiting body.   |
| <b>Control:</b>   | Affected tissues may be removed by pruning where the location of infection allows.   |
| <b>Species affected:</b>                                | <i>Prunus spp.</i>   |



# Appendix B

Schedule of Trees

**SCHEDULE OF TREES (AIA)** Pratts Green Farmhouse, Maltings End, Kirtling, Suffolk

Surveyed By: Matthew Plane-Da'Silva Date: 23/02/2022  
 Managed By: Matthew Plane-Da'Silva

| Tree No | Species   | DBH   | Height   |                       | Visual    | Crown Spread           | Problems / Comments   | BS Cat | Work Required (TS)  | Priority (TS) | Work Required (AIA)  | Priority (AIA) |               |
|---------|---|-------|----------|-----------------------|-----------|------------------------|---|--------|---|---------------|--|----------------|---------------|
|         |   |       | Min Dist | Crown Base            |           |                        |   |        |   |               |  |                | Lowest Branch |
|         |   |       | On site  | RPA (m <sup>2</sup> ) | Aspect    | Aspect                 |   |        |   |               |  |                | SULE          |
| A001    | English Oak,<br>Silver Birch,<br>Norway Maple,<br>Beech,<br>Whitebeam | 450   | 14       |                       | Moderate  | N7, E7, S7, W7         | Area of mixed species. Tree appears to be in a good physiological condition. Damage to some tree has been caused by the larger Willow tree causing broken branches. These should be removed from the crowns.  | B2     | Remove hanging branches from affected trees.                                | 2             |  |                |               |
|         |   | 5.4   | 2.5      |                       | SM        | High                   |   |        |   |               |  |                |               |
| Yes     |   | 91.6  |          |                       | 20+ years | Grass                  |   |        |   |               |  |                |               |
| H001    | Blackthorn,<br>Ash, Field Maple                                       | 90    | 1        |                       | Low       | N0.5, E0.5, S0.5, W0.5 | The hedge acts as a natural screen around the northern and western boundary of the site. Some sections are better managed than others.  | C2     | No work required.   | 4             |  |                |               |
|         |   | 1.08  | 0        |                       | Y         | High                   |   |        |   |               |  |                |               |
| Yes     |   | 3.7   |          |                       | 20+ years | Bare earth             |   |        |   |               |  |                |               |
| H002    | English Elm,<br>Field Maple   | 90    | 1.5      |                       | Low       | N1, E1, S1, W1         | Sporadic hedgerow, actively managed in places.  | C2     | No work required.   | 4             |  |                |               |
|         |   | 1.08  | 0        |                       | SM        | Moderate               |   |        |   |               |  |                |               |
| Yes     |   | 3.7   |          |                       | 20+ years | Grass, Bare earth      |   |        |   |               |  |                |               |
| T001    | Ash   | 600   | 16       |                       | Moderate  | N7, E5, S7, W7         | Tree bifurcates at approximately 1 metre, main union point appears stable at time of inspection. Tree is in close proximity to an outbuilding. Surface roots present along the side of the driveway. The tree is displaying a large amount of budding material. Branches growing low over access. | B1     | Raise branches over access to give adequate clearance of at least 3 metres. | 3             | Undertake a crown raise to 3m on the western aspect to allow adequate clearance into site. | 0              |               |
|         |   | 7.2   | 2        |                       | M         | Moderate               |   |        |   |               |  |                |               |
| Yes     |   | 162.9 |          |                       | 20+ years | Grass, Gravel          |   |        |   |               |  |                |               |
| T002    | Magnolia Sp   | 170   | 3        |                       | Low       | N1.5, E1.5, S1.5, W1   | Tree is located in the front garden. Multi-stemmed form. Low value and little merit.  | C1     | No work required.   | 4             |  |                |               |
|         |   | 2.04  | 1        |                       | Y         | Moderate               |   |        |   |               |  |                |               |
| Yes     |   | 13.1  |          |                       | 40+ years | Grass                  |   |        |   |               |  |                |               |
| T003    | Variegated Holly  | 120   | 1.5      |                       | Low       | N1, E1, S1, W1         | Tree located at the front of the garden growing up close to a retaining stone wall. Low value and little merit.   | C1     | No work required.   | 4             |  |                |               |
|         |   | 1.44  | 0        |                       | Y         | Low                    |   |        |   |               |  |                |               |
| Yes     |   | 6.5   |          |                       | 40+ years | Bare earth             |   |        |   |               |  |                |               |

| Tree No | Species          | DBH                   | Height     |               | Visual    | Crown Spread       | Problems / Comments   | BS Cat | Work Required (TS)                                    | Priority (TS) | Work Required (AIA) | Priority (AIA) |
|---------|------------------|-----------------------|------------|---------------|-----------|--------------------|---|--------|---|---------------|---------------------|----------------|
|         |                  | Min Dist              | Crown Base | Lowest Branch | Age       | Water Demand       |   |        |   |               |                     |                |
|         |                  | RPA (m <sup>2</sup> ) | Aspect     | Aspect        | SULE      | Ground Cover       |   |        |   |               |                     |                |
| T004    | Variegated Holly | 120                   | 1.5        |               | Low       | N1, E1, S1, W1     | Tree located at the front of the garden growing up close to a retaining stone wall. Low value and little merit.   | C1     | No work required.                                     | 4             |                     |                |
|         |                  | 1.44                  | 0          |               | Y         | Low                |   |        |   |               |                     |                |
| Yes     |                  | 6.5                   |            |               | 40+ years | Bare earth         |   |        |   |               |                     |                |
| T005    | Apple Sp         | 280                   | 2.5        |               | Moderate  | N2, E2, S2, W2     | The tree appears to be in a fair overall condition, however with the tree being out of leaf it is difficult to assess the vigour of the tree.                                   | C1     | No work required.                                     | 4             |                     |                |
|         |                  | 3.36                  | 1          |               | M         | Moderate           |   |        |   |               |                     |                |
| Yes     |                  | 35.5                  |            |               | 20+ years | Grass              |   |        |   |               |                     |                |
| T006    | Ash              | 310                   | 9          |               | Moderate  | N3, E6, S6, W2     | Tree is located in the hedgerow. Tree is displaying a large amount of budding material. Minor deadwood present in the canopy.   | C1     | No work required.                                     | 4             |                     |                |
|         |                  | 3.72                  | 2          |               | SM        | Moderate           |   |        |   |               |                     |                |
| Yes     |                  | 43.5                  |            |               | 10+ years | Dense undergrowth  |   |        |   |               |                     |                |
| T007    | Cherry           | 250                   | 5          |               | Low       | N3.5, E3, S3, W2   | Tree is located next to a ditch on the western aspect. Budding material throughout the canopy. Cushion Fungus is present on a secondary limb which extends to the eastern side. | C1     | Remove limb which has fungal fruiting bodies present. | 3             |                     |                |
|         |                  | 3                     | 2.5        |               | SM        | Moderate           |   |        |   |               |                     |                |
| Yes     |                  | 28.3                  |            |               | 20+ years | Grass              |   |        |   |               |                     |                |
| T008    | Apple            | 240                   | 2.5        |               | Low       | N2, E2, S2, W2     | Ornamental Apple tree. Actively managed. Cavity on the southern aspect, sufficient reaction wood around the defect.   | C1     | No work required.                                     | 4             |                     |                |
|         |                  | 2.88                  | 1.8        |               | EM        | Moderate           |   |        |   |               |                     |                |
| Yes     |                  | 26.1                  |            |               | 20+ years | Grass              |   |        |   |               |                     |                |
| T009    | Cherry Sp        | 260                   | 2.8        |               | Low       | N2, E2, S2, W2     | Ornamental Cherry tree. No significant defects at time of inspection.   | C1     | No work required.                                     | 4             |                     |                |
|         |                  | 3.12                  | 1.5        |               | SM        | Moderate           |   |        |   |               |                     |                |
| Yes     |                  | 30.6                  |            |               | 20+ years | Grass              |   |        |   |               |                     |                |
| T010    | Apple Sp         | 160                   | 2.5        |               | Low       | N2, E2.5, S1.5, W1 | Ornamental Apple tree. Actively managed.  | C1     | No work required.                                     | 4             |                     |                |
|         |                  | 1.92                  | 0          |               | SM        | Moderate           |   |        |   |               |                     |                |
| Yes     |                  | 11.6                  |            |               | 20+ years | Grass              |   |        |   |               |                     |                |
| T011    | Apple Sp         | 180                   | 2.5        |               | Low       | N1, E1, S0.5, W1   | Ornamental Apple tree. Actively managed.  | C1     | No work required.                                     | 4             |                     |                |
|         |                  | 2.16                  | 0          |               | SM        | Moderate           |   |        |   |               |                     |                |
| Yes     |                  | 14.7                  |            |               | 20+ years | Grass              |   |        |   |               |                     |                |

| Tree No | Species | DBH                   | Height     |               | Visual    | Crown Spread      | Problems / Comments  | BS Cat | Work Required (TS)                                  | Priority (TS) | Work Required (AIA) | Priority (AIA) |
|---------|---------|-----------------------|------------|---------------|-----------|-------------------|--|--------|---|---------------|---------------------|----------------|
|         |         | Min Dist              | Crown Base | Lowest Branch | Age       | Water Demand      |  |        |   |               |                     |                |
|         |         | RPA (m <sup>2</sup> ) | Aspect     | Aspect        | SULE      | Ground Cover      |  |        |   |               |                     |                |
| T012    | Ash     | 450                   | 11         |               | Low       | N6.5, E1, S1, W5  | The tree is in poor physiological condition with a vast amount of dieback in its crown. The tree has a squatted asymmetric form due to neighbouring tree. Limited safe life expectancy. Ivy around the main stem has restricted a full detailed inspection.  | U      | Fell.   | 3             |                     |                |
|         |         | 5.4                   | 2.5        |               | M         | Moderate          |  |        |   |               |                     |                |
| Yes     |         | 91.6                  |            |               | <10 years | Light undergrowth |  |        |   |               |                     |                |
| T013    | Ash     | 450                   | 10         |               | Low       | N2, E1, S1, W1    | The tree is in a poor physiological condition having lost 90% of its crown. Limited life expectancy. Health and safety issue.  | U      | Fell.   | 2             |                     |                |
|         |         | 5.4                   | 4          |               | EM        | Moderate          |  |        |   |               |                     |                |
| Yes     |         | 91.6                  |            |               | <10 years | Light undergrowth |  |        |   |               |                     |                |
| T014    | Ash     | 380                   | 11         |               | Low       | N1, E1, S2, W1    | The tree is in a poor physiological condition limited life expectancy. Major deadwood. Health and safety issue.  | U      | Fell.   | 2             |                     |                |
|         |         | 4.56                  | 4          |               | EM        | Moderate          |  |        |   |               |                     |                |
| Yes     |         | 65.3                  |            |               | <10 years | Light undergrowth |  |        |   |               |                     |                |
| T015    | Ash     | 650                   | 14         |               | Low       | N6, E6, S6, W6    | Dimensions estimated due to watercourse. The tree has suffered an historic failure. Reaction wood has developed however major limbs are displaying dieback. Limited safe life expectancy. Health and safety issue.   | U      | Fell.   | 2             |                     |                |
|         |         | 7.8                   | 3          |               | M         | Moderate          |  |        |   |               |                     |                |
| Yes     |         | 191.1                 |            |               | <10 years | Light undergrowth |  |        |   |               |                     |                |
| T016    | Willow  | 810                   | 16         |               | Moderate  | N8, E7, S7, W6    | Large dominant tree which is located within an area of smaller trees. The tree has started to lose major limbs from its crown. Tree has a limited space to fully mature. Given the associated failures it is advised that tree is pollarded to enable it safe retention.   | C1     | Pollard to approximately 8 metres.                  | 2             |                     |                |
|         |         | 9.72                  | 1.5        |               | M         | High              |  |        |   |               |                     |                |
| Yes     |         | 296.8                 |            |               | 10+ years | Grass             |  |        |   |               |                     |                |
| T017    | Ash     | 280                   | 14         |               | Low       | N2, E2, S4, W4    | Unable to access the main stem due to watercourse. The tree appears to have a fair overall condition. Given the location of the watercourse and location on embankment the major of the root will be located on the southern aspect of the tree for anchorage. Given the decline of the neighbouring Ash trees it is advised that this tree is monitored for signs of deterioration. | C1     | Monitor trees condition for signs of deterioration. | 3             |                     |                |
|         |         | 3.36                  | 4          |               | SM        | Moderate          |  |        |   |               |                     |                |
| Yes     |         | 35.5                  |            |               | 10+ years | Grass             |  |        |   |               |                     |                |

## Appendix C

Schedule of Works - Irrespective of Development



## SCHEDULE OF WORK IRRESPECTIVE OF DEVELOPMENT

Pratts Green Farmhouse, Maltings End, Kirtling, Suffolk

Surveyed By: Matthew Plane-Da'Silva

Surveyed: 23/02/2022

Managed By: Matthew Plane-Da'Silva

| Tree No. | Species  | Work required   | Priority |
|----------|--|---|----------|
| A001     | English Oak,<br>Silver Birch,<br>Norway Maple,<br>Beech, Whitebeam | Remove hanging branches from affected trees.                                | 2        |
| T013     | Ash  | Fell.   | 2        |
| T014     | Ash  | Fell.   | 2        |
| T015     | Ash  | Fell.   | 2        |
| T016     | Willow   | Pollard to approximately 8 metres.  | 2        |
| T001     | Ash  | Raise branches over access to give adequate clearance of at least 3 metres. | 3        |
| T007     | Cherry   | Remove limb which has fungal fruiting bodies present.                       | 3        |
| T012     | Ash  | Fell.   | 3        |

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# Schedule of Enhanced Monitoring

Pratts Green Farmhouse, Maltings End, Kirtling, Suffolk

Surveyed By: Matthew Plane-Da'Silva

Surveyed: 23/02/2022

Managed By: Matthew Plane-Da'Silva

| Tree No. | Species | Work required                                       | Priority |
|----------|---------|---|----------|
| T017     | Ash     | Monitor trees condition for signs of deterioration. | 3        |

## **Appendix D**

Preliminary Schedule of Works to Allow Development

## SCHEDULE OF WORKS (AIA)

Pratts Green Farmhouse, Maltings End, Kirtling, Suffolk

Surveyed By: Matthew Plane-Da'Silva

Surveyed: 23/02/2022

Managed By: Matthew Plane-Da'Silva

| Tree No. | Species | Work required  | Priority |
|----------|---------|--|----------|
| T001     | Ash     | Undertake a crown raise to 3m on the western aspect to allow adequate clearance into site. | 0        |

## **Appendix E**

Explanatory Notes

# Explanatory Notes



## Categories

Below is an explanation of the categories used in the attached Tree Survey.

**No** Identifies the tree on the drawing.

**Species** Common names are given to aid understanding for the wider audience.

**BS 5837 Main Category** Using this assessment (BS 5837:2012, Table 1), trees can be divided into one of the following simplified categories, and are differentiated by cross-hatching and by colour on the attached drawing:

**Category A** - Those of high quality with an estimated remaining life expectancy of at least 40 years;

**Category B** - Those of moderate quality with an estimated remaining life expectancy of at least 20 years;

**Category C** - Those of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm;

**Category U** - Those trees in such condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.

**BS 5837 Sub Category** Table 1 of BS 5837:2012 also requires a sub category to be applied to the A, B, C, and U assessments. This allows for a further understanding of the determining classification as follows:

**Sub Category 1** - Mainly arboricultural qualities;

**Sub Category 2** - Mainly landscape qualities;

**Sub Category 3** - Mainly cultural values, including conservation .

Please note that a specimen or landscape feature may fulfil the requirements of more than one Sub Category.

**DBH (mm)** Diameter of main stem in millimetres at 1.5 metres from ground level. Where the tree is a multi-stem, the diameter is calculated in accordance with item 4.6.1 of BS 5837:2012.

**Age** Recorded as one of seven categories:

**Y** Young. Recently planted or establishing tree that could be transplanted without specialist equipment, i.e. less than 150 mm DBH.

**S/M** Semi-mature. An established tree, but one which has not reached its prospective ultimate height.

**E/M** Early-mature. A tree that is reaching its ultimate potential height, whose growth rate is slowing down but if healthy, will still increase in stem diameter and crown spread.

**M** Mature. A mature specimen with limited potential for any significant increase in size, even if healthy.

**O/M** Over-mature. A senescent or moribund specimen with a limited safe useful life expectancy. Possibly also containing sufficient structural defects with attendant safety and/or duty of care implications.



## D Dead.

|                           |   |
|---------------------------|---|
| <b>Height</b>             | Recorded in metres, measured from the base of the tree.   |
| <b>Crown Base</b>         | Recorded in metres, the distance from ground and aspect of the lowest branch material.  |
| <b>Lowest Branch</b>      | Recorded in metres, the distance from ground and aspect of the emergence point of the lowest significant branch.  |
| <b>Life Expectancy</b>    | Relates to the prospective life expectancy of the tree and is given as 4 categories:<br><br>1 = 40 years+;<br>2 = 20 years+;<br>3 = 10 years+;<br>4 = less than 10 years.   |
| <b>Crown Spread</b>       | Indicates the radius of the crown from the base of the tree in each of the northern, eastern, southern and western aspects.   |
| <b>Minimum Distance</b>   | This is a distance equal to 12 times the diameter of the tree measured at 1.5 metres above ground level for single stemmed trees and 12 times the average diameter of the tree measured at 1.5 metres above ground level tree for multi stemmed specimens. (BS 5837:2012, section 4.6).   |
| <b>RPA</b>                | This is the Root Protection Area, measured in square metres and defined in BS5837:2012 as “a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree’s viability, and where the protection of the roots and soil structure is treated as a priority”. The RPA is shown on the drawing.. Ideally this is an area around the tree that must be kept clear of construction, level changes of construction operations. Some methods of construction can be carried out within the RPA of a retained tree but only if approved by the Local Planning Authority’s tree officer. |
| <b>Water Demand</b>       | This gives the water demand of the species of tree when mature, as given in the NHBC Standards Chapter 4.2 “Building Near Trees”.   |
| <b>Visual Amenity</b>     | Concerns the planning and landscape contribution to the development site made by the tree, hedge or tree group, in terms of its amenity value and prominence on the skyline along with functional criteria such as the screening value, shelter provision and wildlife significance. The usual definitions are as follows:<br><br>Low                    An inconsequential landscape feature.<br><br>Moderate            Of some note within the immediate vicinity, but not significant in the wider context.<br><br>High                    Item of high visual importance.  |
| <b>Problems/ Comments</b> | May include general comments about growth characteristic, how it is affected by other trees and any previous surgery work; also, specific problems such as deadwood, pests, diseases, broken limbs, etc.  |
| <b>Work Required (TS)</b> | Identifies the necessary tree work to mitigate anticipated problems and deal with existing problems identified in the “Problems/comments” category.   |



**Work Required (AIA)**

Identifies the tree work specifically necessary to allow a proposed development to proceed.

**Priority**

This gives a priority rating to each tree allowing the client to prioritise necessary tree works identified within the Tree Survey.

- 1** Urgent – works required immediately;
- 2** Works required within 6 months;
- 3** Works required within 1 year;
- 4** Re-inspect in 12 months,
- 0** Remedial works as part of implementation of planning consent.





## BS 5837:2012 Terms and Definitions

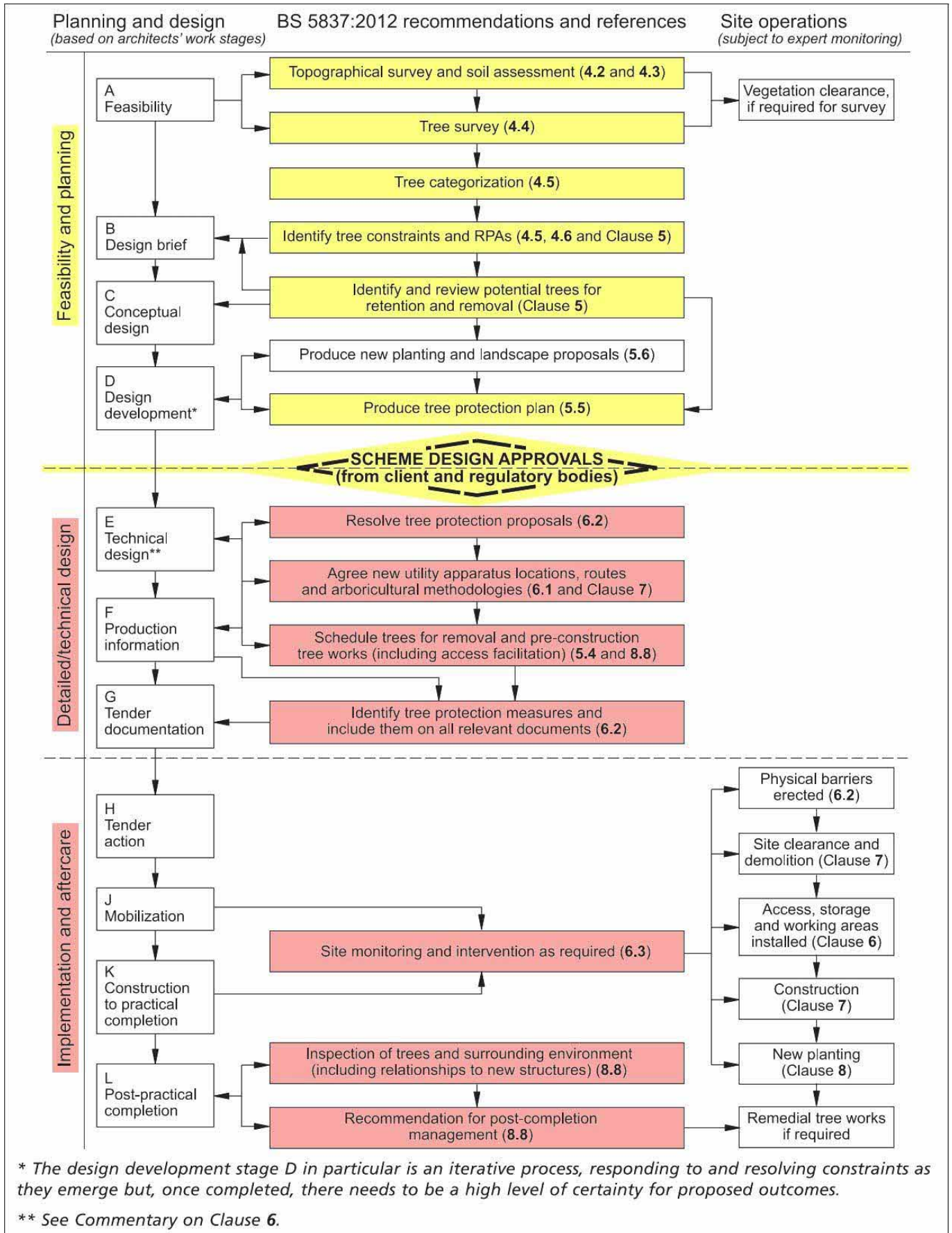
|  |   |
|--|---|
| <b>Access Facilitation Pruning</b>     | One-off tree pruning operation, the nature and effects of which are without significant adverse impact on tree physiology or amenity value, which is directly necessary to provide access for operations on site.   |
| <b>Arboricultural Method Statement</b> | Methodology for the implementation of any aspect of development that is within the root protection area, or has the potential to result in loss of or damage to a tree to be retained.  |
| <b>Arboriculturist</b>                 | Person who has, through relevant education, training and experience, gained expertise in the field of trees in relation to construction.  |
| <b>Competent Person</b>                | Person who has training and experience relevant to the matter being addressed and an understanding of the requirements of the particular task being approached. <i>NOTE - a competent person is expected to be able to advise on the best means by which the recommendations of this British Standard may be implemented.</i>                                     |
| <b>Construction</b>                    | Site-based operations with the potential to affect existing trees.  |
| <b>Construction Exclusion Zone</b>     | Area based on the root protection area from which access is prohibited for the duration of a project.   |
| <b>Root Protection Area (RPA)</b>      | Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority.   |
| <b>Service</b>                         | Any above or below ground structure or apparatus required for utility provision.<br><b>NOTE</b> - examples include drainage, gas supplies, ground source heat pumps, CCTV and satellite communications.   |
| <b>Stem</b>                            | Principal above ground structural component(s) of a tree that supports its branches.  |
| <b>Structure</b>                       | Manufactured object, such as a building, carriageway, path, wall, service run, and built or excavated earthwork.  |
| <b>Tree Protection Plan</b>            | Scale drawing, informed by descriptive text where necessary, based upon the finalized proposals, showing trees for retention and illustrating the tree and landscape protection measures.   |
| <b>Veteran Tree</b>                    | Tree that, by recognized criteria, shows 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.<br><b>NOTE</b> - these characteristics might typically include a large girth, signs of crown retrenchment and hollowing of the stem. |



## **Appendix F**

### Advisory Information & Sample Specifications

# 1. BS 5837:2012 Figure 1 - Flow Chart – Design and Construction & Tree Care

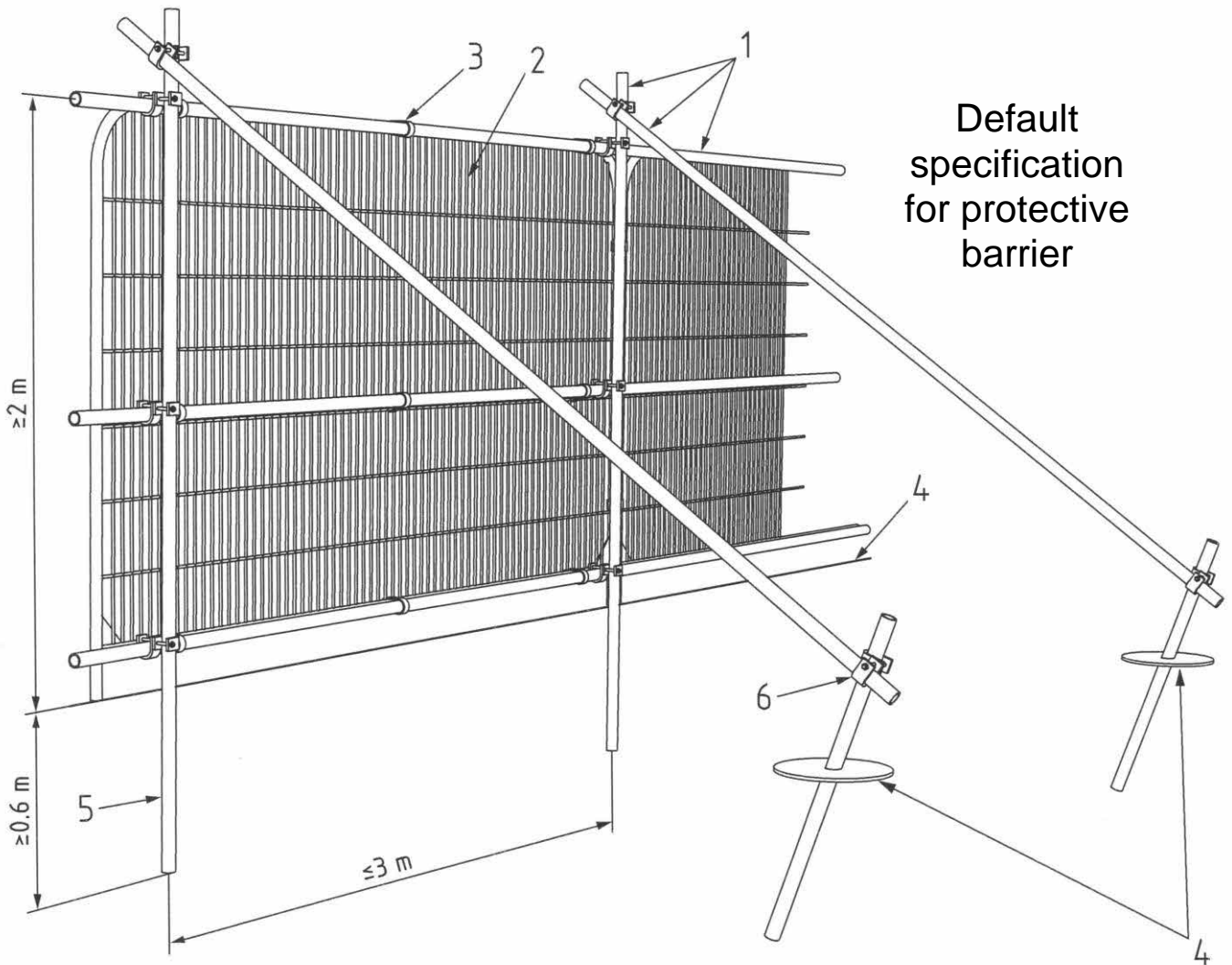


2.

**European Protected Species and woodland operations. (V4)**  
Complete all sections of the Checklist

| Checklist          |  | Details  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| <b>1</b>           | <p>Are you within, or close to, the known mapped range of any of the protected species OTHER THAN BATS which are potentially everywhere? Tick any that apply.<br/>See distribution maps in the Good Practice Guidance for each species -</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Dormice</li> <li><input type="checkbox"/> Otters</li> <li><input type="checkbox"/> Great crested newts</li> <li><input type="checkbox"/> Sand lizards</li> <li><input type="checkbox"/> Smooth snakes</li> </ul>  | <p>Name of Wood:</p> <hr/> <p>Grid Reference:</p> <table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> </tr> </table> <p>Area: (ha)</p> <table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> </tr> </table> <p>Date of Assessment:</p> <table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> </tr> </table> <p>Name of Assessor:</p> <hr/> |  |  |  |  |  |  |  |  |  |  |  |  |
|                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>2</b>           | <p>Does your wood contain any of the following habitats? Tick any that apply.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Old trees with holes and crevices which might be used bats</li> <li><input type="checkbox"/> Species rich scrub/coppice, early growth stage plantations and forest interfaces</li> <li><input type="checkbox"/> Rivers on which otters might be found</li> <li><input type="checkbox"/> Ponds which might be occupied by great crested newts</li> <li><input type="checkbox"/> Open areas on heathy soils</li> </ul>   | <p>YES</p> <p>NO</p>   |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>3</b>           | <p>Have any of the protected species been recorded in this wood or on adjoining sites? Tick any that apply.<br/>Indicate which sources of information you have checked:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> National Biodiversity Network (<a href="http://www.nbn.org.uk">www.nbn.org.uk</a>)</li> <li><input type="checkbox"/> Local Biological Records Centre</li> <li><input type="checkbox"/> Local Wildlife Trust</li> <li><input type="checkbox"/> Other</li> </ul> <p>Specify Other:</p>   | <p>YES</p> <p>NO</p>   |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>4</b>           | <p>Have your inspections or any expert surveys found any of the following signs or evidence? Tick any that apply.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Signs (e.g. otter spraint, nuts gnawed by dormice, leaves folded by newts)</li> <li><input type="checkbox"/> Sightings (or echo-location)</li> <li><input type="checkbox"/> Potential breeding or roosting sites (e.g. veteran trees, old trees with crevices, riverside hollow trees, ponds, timber stacks, large fallen deadwood)</li> <li><input type="checkbox"/> Confirmed breeding or roosting sites (i.e. evidence of sites actually being used)</li> </ul> <p>Details:</p> | <p>YES</p> <p>NO</p>   |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>CHECK POINT</b> | <p>If you have answered NO to ALL of the above then only bats need to be considered in your operations.</p> <p>If you have answered YES to any of the above then the species concerned must be considered as well as bats.</p>   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>5</b>           | <p>Do the operations comply with Good Practice for bats and any other species found (or likely to be found in your wood) or can the operations be modified to do so?<br/><i>Details: Use reverse of form to expand as required:</i></p>  | <p>YES</p> <p>NO</p>   |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>6</b>           | <p><u>Whether or not a licence is required...</u><br/>Has the information been communicated to operators (including the location of breeding sites and sensitive areas)? Tick any that apply.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Included in documentation (e.g. contract, letter of instruction, site assessment or other management plan)</li> <li><input type="checkbox"/> Shown to operators and/or their supervisor</li> <li><input type="checkbox"/> Marked with paint or hazard tape</li> <li><input type="checkbox"/> Shown on the site plan</li> </ul> <p>Other means:</p>   | <p>YES</p> <p>NO</p>   |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>7</b>           | <p>Have arrangements for supervision been made to ensure Good Practice guidance is complied with during the operations?<br/><i>Details:</i></p>  | <p>YES</p> <p>NO</p>   |  |  |  |  |  |  |  |  |  |  |  |  |
|                    |  | <b>Notes</b>   |  |  |  |  |  |  |  |  |  |  |  |  |
|                    |  | <p>A licence is not required but continue to sections 6 and 7 below</p> <p>You will need to obtain a licence BEFORE carrying out the work (see EPS Licence Application Forms and Notes)</p>  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    |  | <p>You may commit an offence if you do not tell your operators about the protected species in your wood.</p>   |  |  |  |  |  |  |  |  |  |  |  |  |
|                    |  | <p>You may commit an offence if you do not take steps to ensure that your operators comply with the Good Practice guidance.</p>  |  |  |  |  |  |  |  |  |  |  |  |  |

3. BS 5837:2012 Figure 2: Default specification for protective barrier

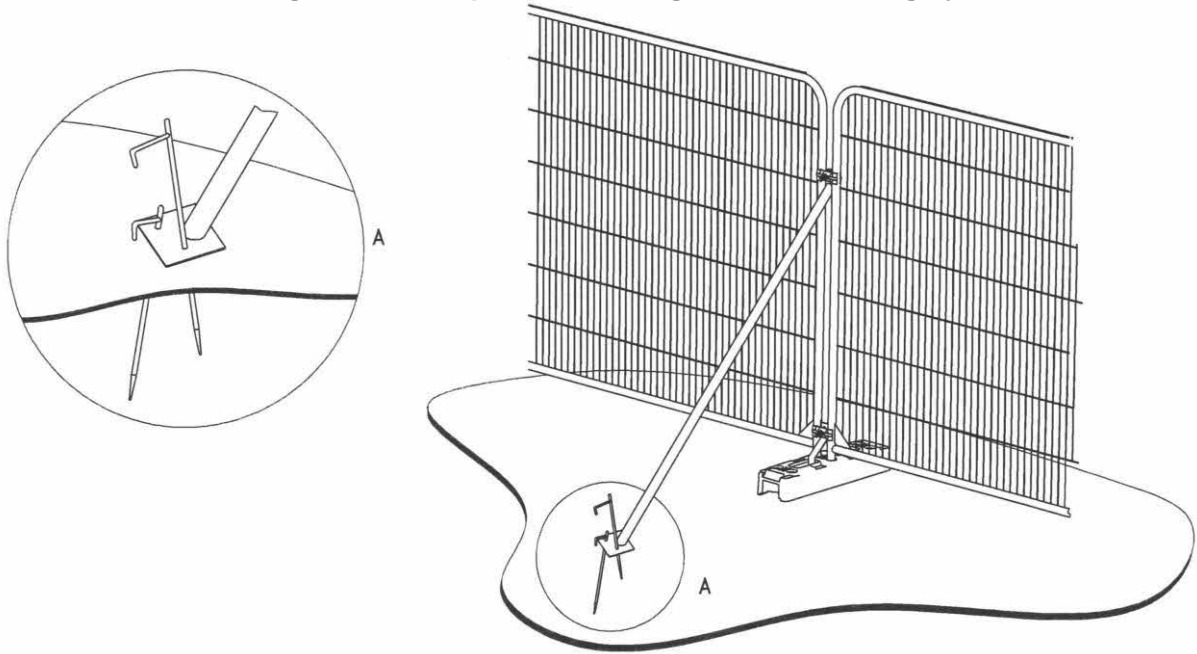


Default  
specification  
for protective  
barrier

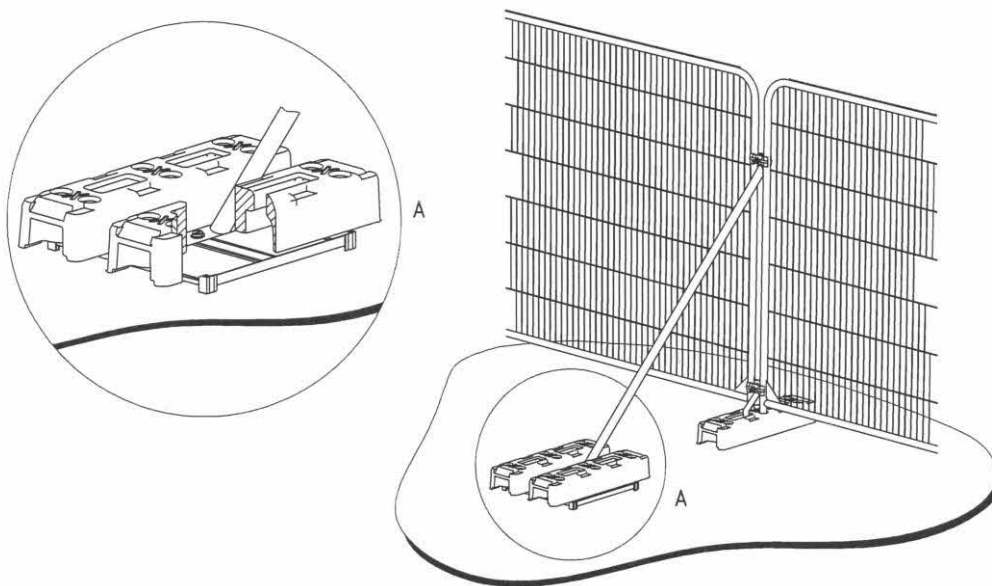
Key

- 1 Standard scaffold pole
- 2 Heavy gauge 2m tall galvanised tube and welded mesh infill panels
- 3 Panels secured to uprights and cross-members with wire ties
- 4 Ground level
- 5 Uprights driven into the ground until secure (minimum depth 0.6m)
- 6 Standard scaffold clamps

4. BS 5837:2012 Figure 3: Examples of above-ground stabilizing systems



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

## **Appendix G**

Haydens Drawing

Arboricultural Impact Assessments  
Arboricultural Method Statements  
Tree Constraints Plans  
Arboricultural Feasibility Studies  
Shade Analysis  
Picus Tomography  
Arboricultural Consultancy for Local Planning Authority  
Quantified Tree Risk Assessment  
Health & Safety Audits for Tree Stocks  
Tree Stock Survey and Management  
Mortgage and Insurance Reports  
Subsidence Reports  
Woodland Management Plans  
Project Management  
Ecological Surveys



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