



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

Proj. No 8859	5 Oliver's Battery Gardens, Winchester, Hampshire		
Client:		Birch Architecture	
Date of Report:	20/05/2021	Revision:	A

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

Summary

The purpose of this report is to provide a 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 conservatory and a double garage situated on and adjacent to the east elevation of 5 Oliver’s Battery Gardens, separate the existing garden area into a separate plot and construct a new chalet bungalow with associated carport and hard landscaping. As a result ten individual trees, one group of trees and one woodland were inspected. The arboricultural related implications of the proposal are as follows:

- 1 In addition to trees which require felling irrespective of development, it is necessary to fell two Category ‘C’ individual trees in order to achieve the proposed layout. Additionally, one Category ‘B’ tree and three trees in a Category ‘B’ woodland require minor surgery to permit construction.
- 2 Four trees have been identified for removal irrespective of any development proposals. The removal of two of these trees coincides with the requirements of the proposed layout.
- 3 The alignment of the proposed dwelling and parking area encroaches within the theoretical Root Protection Area of one tree that is to be retained. As this area is at a lower level separated by a retaining wall and partly occupied by an existing structure likely to have precluded root growth, specialist foundation designs are not considered necessary as discussed at item 4.4.1.
- 4 The alignment of the rear patio to the proposed dwelling nominally intrudes within the Root Protection Area of four trees to be retained. This has only minor influence on the their Root Protection Areas and as such it is considered appropriate to undertake linear root pruning, as discussed at item 4.4.2.
- 5 Trees within W001 require additional investigation. It is understood they lie on neighbouring land and as such the relevant recommendations of this report relating to these trees should be communicated to the owners as soon as possible.
- 6 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:

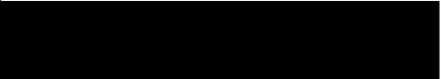
Structural Engineer (foundation design, item 4.4.1)


- 7 All trees and landscape features that are to remain as part of the development should suffer no structural damage provided that the findings within this report are complied with in full. This includes ensuring that protective fencing and ground protection are installed as detailed at items 4.6 and 5.1 of this report.



Contact Details

Client – Birch Architecture			
Address Lambourne Grove Lane Redlynch Wiltshire SP5 2NR	Contact Nick Birch	Tel: E-mail:	

Local Planning Authority – Winchester City Council			
Address Winchester City Council City Offices Colebrook Street Winchester SO23 9LJ	Tree Officer	Tel: E-mail:	

Arboricultural Consultant – Hayden’s Arboricultural Consultants Limited			
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1.0 Introduction

1.1 Terms of Reference

1.1.1 Hayden's Arboricultural Consultants Limited has been commissioned by Birch Architecture to prepare a Tree Survey, Arboricultural Impact Assessment, Arboricultural Method Statement and Tree Protection Plan for the existing trees at 5 Oliver's Battery Gardens, Winchester, Hampshire.

1.1.2 The site survey was carried out on the 04/10/2018. The relevant qualitative and quantitative 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.

1.2.4 Where the trees inspected stand within woodland, the frequency with which these trees/woodlands are accessed, or will be accessed, must be considered as an integral part of the recommendations given for the future management of these trees/woodlands. Priority will be given to those trees near existing and proposed footpaths, public highways and the site boundaries where it is assumed that the presence of persons and property will be more frequent and therefore of a potentially higher risk. Many of the trees surveyed within the woodland areas present little or no risk (barring exceptional circumstances) to site users and could therefore be left unmanaged.



The decision regarding the frequency of use of these areas within the site and the management decisions taken based on this frequency, must ultimately be the responsibility of the client.

1.3 Documentation

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

Email of instruction received from Nick Birch on the 17/5/21
Topographical survey – drawing ref: LDS/15009-TP1
Proposed site layout - drawing ref: 0235-02-101

2.0 The Site

2.1 Overview

2.1.1. The site is 5 Oliver's Battery Gardens, Winchester which currently comprises of a bungalow with a conservatory on the eastern elevation along with a large detached garage and associated hardstanding. There is a marked level change between the front, southern boundary of the site and rear northern boundary with the majority of the garden area situated at the raised elevation. The trees were found to be of mixed species and maturity and are considered to provide a range of amenity benefits.

2.2 Soils

2.2.1 The soil type commonly associated with this site are generally shallow and lime-rich over chalk or limestone. They are of moderate lime-rich fertility and typically support herb-rich downland and limestone pastures; limestone pavements in the uplands; Beech hangers and other lime-rich woodland type habitats. This soil type constitutes approximately 7.0% of 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 informed that at the *date of the tree inspection* the trees concerned were not located within a Conservation Area or the subject of a Tree Preservation Order. As such, no written permission would be required from the Local Planning Authority (LPA), Winchester City Council, prior to commencing works to trees. However, it should be noted that the LPA have the power to serve Tree Preservation Orders very rapidly and therefore it is incumbent upon owners, managers or any persons wishing to undertake work to any trees to contact the LPA prior to commencing works to ensure that the situation has not changed.



3.0 Tree Survey

- 3.1 As part of this survey a total of ten individual trees, one group of trees and one woodland have been identified. These have been numbered T001 – T010, G001 and W001, respectively.
- 3.2 A topographical survey was provided which showed the position of the trees on site. However, it should be noted 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. 8859-D-AIA Rev A.
- 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.
- 3.6 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 seeks to demolish an existing conservatory and double garage situated on and adjacent to the east elevation of 5 Oliver's Battery Gardens, Winchester, to subdivide the site into two separate plots and construct a new dwelling with associated hardstanding to serve both properties.

4.2 Access

- 4.2.1 Site access is unencumbered by the Root Protection Areas (RPA) of any trees to be retained. From a purely arboricultural perspective, it will therefore 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 affects the theoretical RPA of one retained tree – T002. However, in this situation the presence of long existing hard surfacing together with marked level changes and a retaining wall between the tree and the structures to be demolished, is considered likely to have precluded significant root encroachment as shown on the attached drawing no. 8859-D-AIA Rev A and discussed at item 4.4.2. In order to prevent damage to the canopy of this specimen works must only be completed with appropriate machinery or by hand within the crown spread. In the proximity of the retained tree, all walls and material must be demolished inwards into the footprint of the building and away from the stem (often referred to as “top down, pull back”). Additionally, all plant and vehicles engaged in demolition should operate outside the canopy.

4.4 Construction

4.4.1 Construction of foundations or structural supports encroach within the calculated RPA of one tree to be retained – T002. Given the limiting effect of previous structures on similar footprints situated at a lower elevation than T002 and separated by a retaining wall, no significant root disturbance is considered likely. There will therefore be no need for a foundation design that protects tree roots. However, given the proximity of the proposed construction to the tree to be retained, it is recommended that a Structural Engineer is consulted to assess the implications of tree retention on the required foundation design.

4.4.2 A shed is proposed to be constructed within the RPA of an offsite Ash and Field maple within W001. This lightweight structure will be installed using a ‘no-dig’ specification.

4.4.3 Installation of new hard surfaces encroach within a small portion of the RPA of the following trees to be retained – T002, a young offsite Field Maple, Ash and Beech situated within W001. As this intrusion is to the east of T002 and is separated from the proposed patio by an existing set of stairs, it is reasonably foreseeable that no significant root disturbance will be associated with this activity. As there are existing structures within the RPA of T002 likely to have precluded root development the theoretical circular plot has been modified to that of a polygon, in accordance with section 4.6.2 of BS5837:2012. The theoretical circular plot gives a RPA of 177.04m², the modified RPA has a measurement of 180.94m². The percentage incursion into the modified RPA of T002 is 3.6% and given the modest intrusion at this location, if roots are found it is considered acceptable to undertake linear root pruning as part of the access facilitation pruning (AFP) works. The percentage incursion into the RPA of the offsite Maple, Ash and Beech is 5.3%, 1.1% and 12.2%, respectively. This moderate incursion into these young trees’ RPA is not considered likely to have a significantly adverse effect on their health and retention given their maturity. If roots are found, it is therefore considered acceptable to undertake linear root pruning as part of the access facilitation pruning (AFP) works. Furthermore, it should be noted that Category ‘U’ T005 and a recently removed companion Cypress tree are likely to have precluded root growth of the two offsite woodland trees onto the site due to competition.

4.4.4 To facilitate the installation of the proposed dwelling’s rear patio excavation is shown to encroach within a small portion of the RPA of following trees to be retained – T002 and a young offsite Field Maple and Beech situated within W001. Given the minor extent of the intrusion at this location it is considered appropriate to undertake linear root pruning as part of the access facilitation pruning (AFP) works, as discussed in section 4.4.3, above.



4.5 Implications of Sloping Ground

4.5.1 The arboricultural implications of the proposed structures are based on an assumption that level changes will not occur within the RPA of trees that are shown to be retained. On this site, there is a considerable slope and as such it is assumed that “cut and fill” operations will be required. If these works cannot be excluded from the calculated RPA of retained trees, a reappraisal of the arboricultural implications will be required.

4.6 Requirement for Tree Protection

4.6.1 Prior to the commencement of demolition and construction and immediately after the completion of the necessary tree work, protective fencing and ground protection will be installed on site. This must be fit for purpose, in full accordance with the requirements of BS 5837:2012 and positioned as shown on the attached Arboricultural Impact Assessment & Tree Protection drawing no. 8859-D-AIA Rev A.

4.7 Compound

4.7.1 The site provides limited internal space to locate a construction compound outside the RPA of any trees that are to be retained. As such the project will require careful phasing to manage the storage of materials.

4.8 Phasing

4.8.1 The approval involves the integration of a number of aspects that affect tree protection. For this reason the project must be carefully phased to ensure the highest level of protection for retained trees at all times. Shown on the attached drawing no. 8859-D-AIA Rev A is a 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. Shown on the attached drawing no. 8859-D-AIA Rev A is an auditable monitoring schedule to assess the progress of key site events/activities.

4.10 Access Facilitation Pruning

4.10.1 It is necessary to undertake access facilitation pruning (AFP) which includes below ground works to T002 and an offsite Field Maple, Ash and Beech in W001, as outlined in the Schedule of Works to Allow Development. These works are necessary to permit construction. Given the amount of pruning necessary and the location of the works, the AFP is not considered likely to have an adverse effect on the trees concerned.



4.11 Landscape Implications

4.11.1 In addition to 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) the items listed in the table below require felling to permit the proposed development to proceed: -

Feature No	Reason for Removal	BS Category*	Visual Amenity Assessment*
T006	To facilitate development.	C	Moderate
T007	To facilitate development.	C	Low

* Please see definitions in the Explanatory Notes attached to this report.

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, 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 and ground protection installed in the positions indicated on the attached Arboricultural Impact Assessment & Tree Protection drawing no. 8859-D-AIA Rev A. This tree protection will be in accordance with the requirements of BS 5837:2012.

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 LPA.



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 LPA 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 LPA.

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 Arboricultural Impact Assessment & Tree Protection drawing no. 8859-D-AIA Rev A. Any encroachment within this protected area will only be with the prior agreement of the LPA.

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 works, once approved by the LPA, 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 G-1).

5.5 Tree Surgery

5.5.1 All tree work will be agreed with the LPA and will be carried out in line with BS 3998:2010 (Recommendations for Tree Works). An arboricultural contractor approved by the LPA will carry out the work. Any alterations to the proposed schedule of works will be agreed with the LPA 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.



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 LPA.
- 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 LPA prior to commencement of works.

5.8 Reporting and Monitoring Procedures

- 5.8.1 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 LPA and appropriate action taken only with the prior permission of Birch Architecture and the LPA.



6.0 Recommendations

- 6.1 It is recommended that the measures detailed 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 Tree work 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.
- 6.3 The tree work 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 work, to which the proposed schedule of works has been altered or the tree has been requested to be retained by the LPA, 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 but will become invalid if any building works are carried out upon the property, soil levels altered in any way close to the property, or tree work undertaken. It must also be appreciated that recommendations proposed within this report may be superseded by extreme weather, or any other unreasonably foreseeable events.

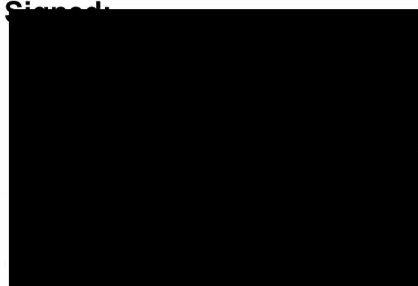
If alterations to the property or soil levels are carried out, or tree work undertaken, it is strongly recommended that a new tree inspection be carried out.

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.

Signature



May 2021

For and on Behalf of Hayden's Arboricultural Consultants Limited



8.0 References

British Standards Institute. (2010). *Recommendations for Tree Work BS3998:2010* BSI, London.

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

Tree Preservation Orders and trees in conservation areas (2014). Department for Communities and 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.

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

Culter D.F. & Richardson I.B.K, (1989). *Tree Roots & Buildings*. Longman Scientific & Technical.

Biddle P.G. (1998). *Tree Root Damage to Buildings, Volumes 1 & 2*. Willowmead Publishing Ltd.

British Standards Institute. (1999). *Code of Practice for Site Investigations BS 5930:1999* HMSO, London.

Roberts J., Jackson N. & Smith M. (2006). *Research for Amenity Trees No.8: Tree Roots in the Environment*. Department for Communities and Local Government, HMSO, London.

Strouts R.G. & Winter T.G. (1994). *Research for Amenity Trees No.2: Diagnosis of Ill-Health in Trees*. Department of the Environment, HMSO.



9.0 Appendices

Appendix	A	Species List & Tree Problems
Appendix	B	Schedule of Trees
Appendix	C	Schedule of Works - Irrespective of Development
Appendix	D	Schedule of Works to Allow Development
Appendix	E	Explanatory Notes
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Appendix	G	Advisory Information & Sample Specifications
	1.	BS 5837:2012 Figure 1 - Flow Chart – Design and Construction & Tree Care
	2.	European Protected Species and Woodland Operations Checklist (v.4)
	3.	BS 5837:2012 Figure 2 - Default specification for protective barrier
	4.	BS 5837:2012 Figure 3 - Examples of above-ground stabilizing systems
	5.	Figure 4 Detail of protective barrier where construction encroaches within BS5837:2012 Root Protection Area
	6.	Multitrack Ground Guards
Appendix	H	Drawing no. 8859-D-AIA Rev A



Appendix A - Species List & Tree Problems

Species List:

Apple	<i>Malus domestica</i>
Ash	<i>Fraxinus excelsior</i>
Beech	<i>Fagus sylvatica</i>
Cherry	<i>Prunus avium</i>
Field Maple	<i>Acer campestre</i>
Lawson's Cypress	<i>Cupressocyparis lawsoniana</i>
Leyland Cypress	<i>Cupressus x leylandii</i>
Pear	<i>Pyrus communis</i>
Plum	<i>Prunus domestica</i>
Purple-leaved Plum	<i>Prunus cerasifera 'Pissardii'</i>
Yew	<i>Taxus baccata</i>

Tree Problems:

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

Name: Deadwood	
Symptoms/Damage Type:	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.
Consequence:	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.
Control Measures:	Detailed monitoring should be undertaken on those trees showing signs of excessive deadwood production to identify the underlying cause.



Name: Ivy (<i>Hedera helix</i>)	
Symptoms/Damage Type:	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.
Consequence:	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.
Control Measures:	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.

Name: <i>Phellinus pomaceus</i>	
Symptoms/Damage Type:	Fungus causing heart rot to the stems and branches on rosaceous trees, is commonly found on <i>Prunus spp.</i> The fungus causes white rot with wood becoming brittle and then later soft.
Consequence:	The consequence will often be a brittle stem fracture usually near the fruiting body.
Control Measures:	Affected tissues may be removed by pruning where the location of infection allows.



Appendix B

Schedule of Trees

SCHEDULE OF TREES (AIA) 5 Oliver's Battery Gardens, Winchester, Hampshire

Surveyed By: Liz Beckett
Managed By: Liz Beckett

Date:

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 ²)	Aspect	Aspect	SULE							Ground Cover
G001	Leyland Cypress	220	7		Moderate	N2.5, E1.0, S2.5, W1.0	Linear group of cypress x 8 possibly intended as a hedge but not managed as such. Some lateral growth extending south over the site has been tipped back. NB offsite trees so measurements estimated due to restricted access.	C2	No work required.	4			
		2.64	0-2m		EM	High							
No		21.9			10 + years	Grass							
T001	Cherry	140	5		Low	N2.5, E2.5, S2.5, W2.5	Trifurcates at 1.3m above ground level.	C1	No work required.	4			
		1.68	0-2m		SM	Moderate							
Yes		8.9			10 + years	Grass, Shrub bed							
T002	Common Yew	620	9.5		High	N4.5, E5.0, S4.5, W4.5	Twin stemmed from ground level with stem diameters measuring 430 and 440mm. Multiple bark inclusions between stem and branches with crossing and fused branches stabilising what would otherwise be a compromised structural condition. This form is fairly typical of the species. Pendulous tertiary growth is in close proximity to the roof of the house and conservatory. It should be noted that there are steps and a terraced level change to the east and south of the tree's stem, respectively within the RPA.	B2	Remove lowest lateral secondary branch extending south west over the conservatory and house.	3	Undertake precautionary root pruning as per drawing no. 8859-AIA-D Rev A	0	
		7.44	0-2m		M	Moderate							
Yes		173.9			20+ years	Mixed soft/hard surface, Shrub bed							
T003	Apple	240	7		Low	N1.5, E3.5, S3.0, W2.0	Included bark between branches. Crossing branches. Truncated branches. Minor deadwood.	C1	No work required.	4			
		2.88	0-2m		M	Moderate							
Yes		26.1			10 + years	Flower bed							

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 ²)	Aspect	Aspect	SJLE	Ground Cover						
T004	Monterey Cypress	940	15		High	N8.0, E5.0, S4.0, W7.5	Measured over Ivy. Ivy restricting close inspection of lower stem. Multiple bark inclusions. Crossing branches. Deadwood. Crown asymmetry. Stem wound on south aspect of dominant stem at approximately 4.5m above ground level indicates historic included bark failure. Multiple structural and unstable defects make this tree unsuitable for long term retention. Given Category C borderline U. Nb concrete slab at base to fence approx 1.5m wide. Felled subsequent to survey following storm damage to the tree's crown.	C2	No work required.	4		
		11.28	2.1-4m		M	High						
Yes		399.7			10 + years	Bare earth, Mixed soft/hard surface, Concrete						
T005	Lawson Cypress	180	8		Low	N0.5, E0.0, S0.0, W2.0	Exposed due to loss of companion cover. Significant crown asymmetry. Topped and dieback upper canopy.	U	Fell to ground level.	3		
		2.16	4.1-6m		SM	High						
Yes		14.7			<10 Years	Mixed soft/hard surface						
T006	Common Pear	130	5		Moderate	N2.0, E1.0, S1.5, W2.0	Asymmetric crown.	C1	No work required.	4	Fell to permit development.	0
		1.56	0-2m		EM	Moderate						
Yes		7.6			10 + years	Bare earth, Mixed soft/hard surface, Concrete						
T007	Apple	120	3.2		Low	N2.5, E3.0, S2.5, W3.0	Minor deadwood.	C1	No work required.	4	Fell to permit development.	0
		1.44	0-2m		EM	Moderate						
Yes		6.5			10 + years	Flower bed						
T008	Purple-leaved Plum	150	6		Low	N1.0, E0.5, S1.0, W1.5	Measured over Ivy. Ivy congesting crown and impeding inspection. Dieback. Major deadwood.	U	Fell to ground level.	3		
		1.8	0-2m		M	Moderate						
Yes		10.2			<10 Years	Shrub bed						

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 ²)	Aspect	Aspect	SJLE	Ground Cover						
T009	Purple-leaved Plum	290	7		Low	N3.0, E3.0, S2.0, W3.5	Twin stemmed with stems measuring 200 and 200. Ivy congesting crown and impeding inspection. Epicormic growth. Dieback. Poor physiological condition.	U	Fell to ground level.	3		
		3.48	0-2m		M	Moderate						
Yes		38			<10 Years	Shrub bed						
T010	Plum	190	5		Low	N1.0, E2.0, S1.5, W3.5	Multi-stemmed the 2 largest stems measure 130mm. Dieback. Major deadwood. Phellinus pomaceus.	U	Fell to ground level.	3		
		2.28	0-2m			Moderate						
Yes		16.3			<10 Years	Shrub bed						
W001	Common Ash	1	15		High	N3.0, E3.0, S4.0, W2.0	Offsite small woodland group comprising of Ash, Beech, Cherry and Field Maple. Mostly juvenile to semi mature. Ivy ascending stem and congesting the crown of the majority. As these trees have been planted with tight spacing they have developed with poor taper and some have a twin or multi-stemmed appearance. Its advised that the trees have the Ivy removed and are inspected with a view to selecting suitable specimens to retain.	B2	Remove Ivy and reinspect.	3	Undertake precautionary root pruning as per drawing no. 8859-AIA-D Rev A.	0
		0.012	0-2m		SM	Moderate						
No		0			20+ years	Woodland floor						

Appendix C

Schedule of Works - Irrespective of Development

SCHEDULE OF WORK

5 Oliver's Battery Gardens, Winchester, Hampshire

Surveyed By: Liz Beckett

Surveyed:

Managed By: Liz Beckett

Tree No.	Species	Work required	Priority
T002	Common Yew	Remove lowest lateral secondary branch extending south west over the conservatory and house.	3
T005	Lawson Cypress	Fell to ground level.	3
T008	Purple-leaved Plum	Fell to ground level.	3
T009	Purple-leaved Plum	Fell to ground level.	3
T010	Plum	Fell to ground level.	3
W001	Common Ash	Remove Ivy and reinspect.	3

Appendix D

Schedule of Works to Allow Development

SCHEDULE OF WORKS (AIA)

5 Oliver's Battery Gardens, Winchester, Hampshire

Surveyed By: Liz Beckett

Surveyed:

Managed By: Liz Beckett

Tree No.	Species	Work required	Priority
T002	Common Yew	Undertake precautionary root pruning as per drawing no. 8859-AIA-D Rev A	0
T006	Common Pear	Fell to permit development.	0
T007	Apple	Fell to permit development.	0
W001	Common Ash	Undertake precautionary root pruning as per drawing no. 8859-AIA-D Rev A.	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.

V Veteran. An over-mature specimen, usually of high value due to either its age, size and/or ecological significance



D Dead.

Height	Recorded in metres, measured from the base of the tree.
Crown Base	Recorded in metres, the distance from ground and aspect of the lowest branch material.
Lowest Branch	Recorded in metres, the distance from ground and aspect of the emergence point of the lowest significant branch.
Life Expectancy	Relates to the prospective life expectancy of the tree and is given as 4 categories: 1 = 40 years+; 2 = 20 years+; 3 = 10 years+; 4 = less than 10 years.
Crown Spread	Indicates the radius of the crown from the base of the tree in each of the northern, eastern, southern and western aspects.
Minimum Distance	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).
RPA	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.
Water Demand	This gives the water demand of the species of tree when mature, as given in the NHBC Standards Chapter 4.2 “Building Near Trees”.
Visual Amenity	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: Low An inconsequential landscape feature. Moderate Of some note within the immediate vicinity, but not significant in the wider context. High Item of high visual importance.
Problems/ Comments	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.
Work Required (TS)	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

Access Facilitation Pruning	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.
Arboricultural Method Statement	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.
Arboriculturist	Person who has, through relevant education, training and experience, gained expertise in the field of trees in relation to construction.
Competent Person	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>
Construction	Site-based operations with the potential to affect existing trees.
Construction Exclusion Zone	Area based on the root protection area from which access is prohibited for the duration of a project.
Root Protection Area (RPA)	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.
Service	Any above or below ground structure or apparatus required for utility provision. NOTE - examples include drainage, gas supplies, ground source heat pumps, CCTV and satellite communications.
Stem	Principal above ground structural component(s) of a tree that supports its branches.
Structure	Manufactured object, such as a building, carriageway, path, wall, service run, and built or excavated earthwork.
Tree Protection Plan	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.
Veteran Tree	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. NOTE - these characteristics might typically include a large girth, signs of crown retrenchment and hollowing of the stem.



Appendix F

Tree Preservation Order Enquiry/Response

Gabrielle Justesen

From: Landscape@winchester.gov.uk
Sent: 02 October 2018 13:25
To: Gabrielle Justesen
Subject: RE: TPO Enquiry - 7048 - 5 Oliver's Battery Gardens, Winchester, Hampshire, SO22 4HF

Good Afternoon,

I can confirm that there are no TPOs at 5 Oliver's Battery Gardens and that it is not within the conservation area.

Kind Regards,

Claire Jakeman
Technician - Landscape and Open Spaces

Winchester City Council
City Offices
Colebrook Street
Winchester
SO23 9LJ

Tel: 01962 848 301



www.winchester.gov.uk
www.visitwinchester.co.uk



From: Gabrielle Justesen [mailto:Gabby@treesurveys.co.uk]
Sent: 02 October 2018 12:22
To: Landscape
Subject: TPO Enquiry - 7048 - 5 Oliver's Battery Gardens, Winchester, Hampshire, SO22 4HF

Dear Mr Verrion,

Could you please advise if the above mentioned site is covered by TPO or is located within a Conservation Area?

I have attached a map for your use.

I look forward to hearing from you.

Kind regards

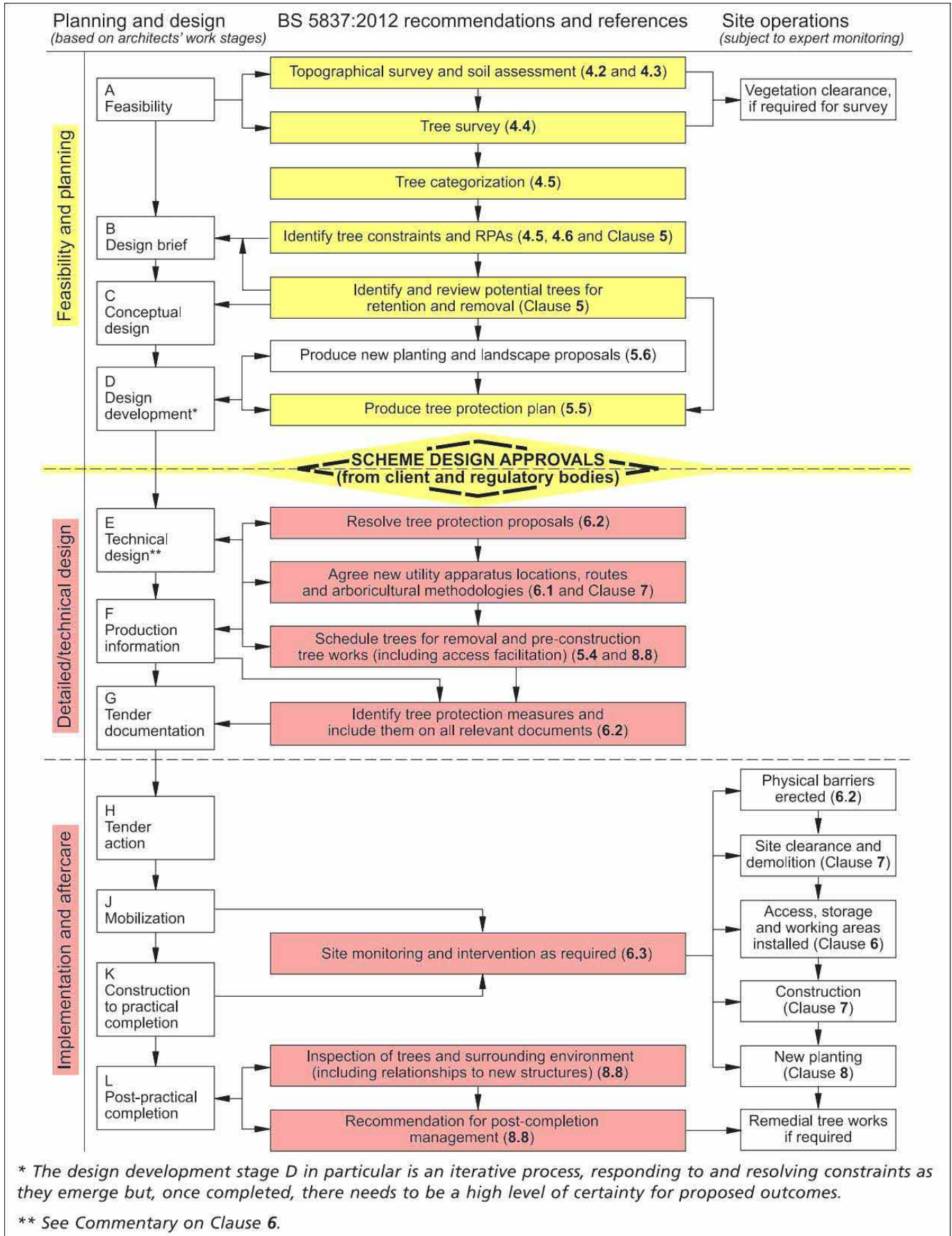
Gabby Justesen
Office Manager – South West Office

(Please note my working hours are 9am – 1pm)

Appendix G

Advisory Information & Sample Specifications

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



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

Checklist

1 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. See distribution maps in the Good Practice Guidance for each species -

YES
NO

- Dormice
- Otters
- Great crested newts
- Sand lizards
- Smooth snakes

2 Does your wood contain any of the following habitats? Tick any that apply.

YES
NO

- Old trees with holes and crevices which might be used bats
- Species rich scrub/coppice, early growth stage plantations and forest interfaces
- Rivers on which otters might be found
- Ponds which might be occupied by great crested newts
- Open areas on heathy soils

3 Have any of the protected species been recorded in this wood or on adjoining sites? Tick any that apply. Indicate which sources of information you have checked:

YES
NO

- National Biodiversity Network (www.nbn.org.uk)
- Local Biological Records Centre
- Local Wildlife Trust
- Other

Specify Other: _____

4 Have your inspections or any expert surveys found any of the following signs or evidence? Tick any that apply.

YES
NO

- Signs (e.g. otter spraint, nuts gnawed by dormice, leaves folded by newts)
- Sightings (or echo-location)
- Potential breeding or roosting sites (e.g. veteran trees, old trees with crevices, riverside hollow trees, ponds, timber stacks, large fallen deadwood)
- Confirmed breeding or roosting sites (i.e. evidence of sites actually being used)

Details: _____

CHECK POINT If you have answered NO to ALL of the above then only bats need to be considered in your operations.
If you have answered YES to any of the above then the species concerned must be considered as well as bats.

Details

Name of Wood: _____

Grid Reference: _____

Area: (ha) _____

Date of Assessment: _____

Name of Assessor: _____

5 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? Details: Use reverse of form to expand as required:

YES
NO

6 Whether or not a licence is required... Has the information been communicated to operators (including the location of breeding sites and sensitive areas)? Tick any that apply.

YES
NO

- Included in documentation (e.g. contract, letter of instruction, site assessment or other management plan)
- Shown to operators and/or their supervisor
- Marked with paint or hazard tape
- Shown on the site plan

Other means: _____

7 Have arrangements for supervision been made to ensure Good Practice guidance is complied with during the operations? Details:

YES
NO

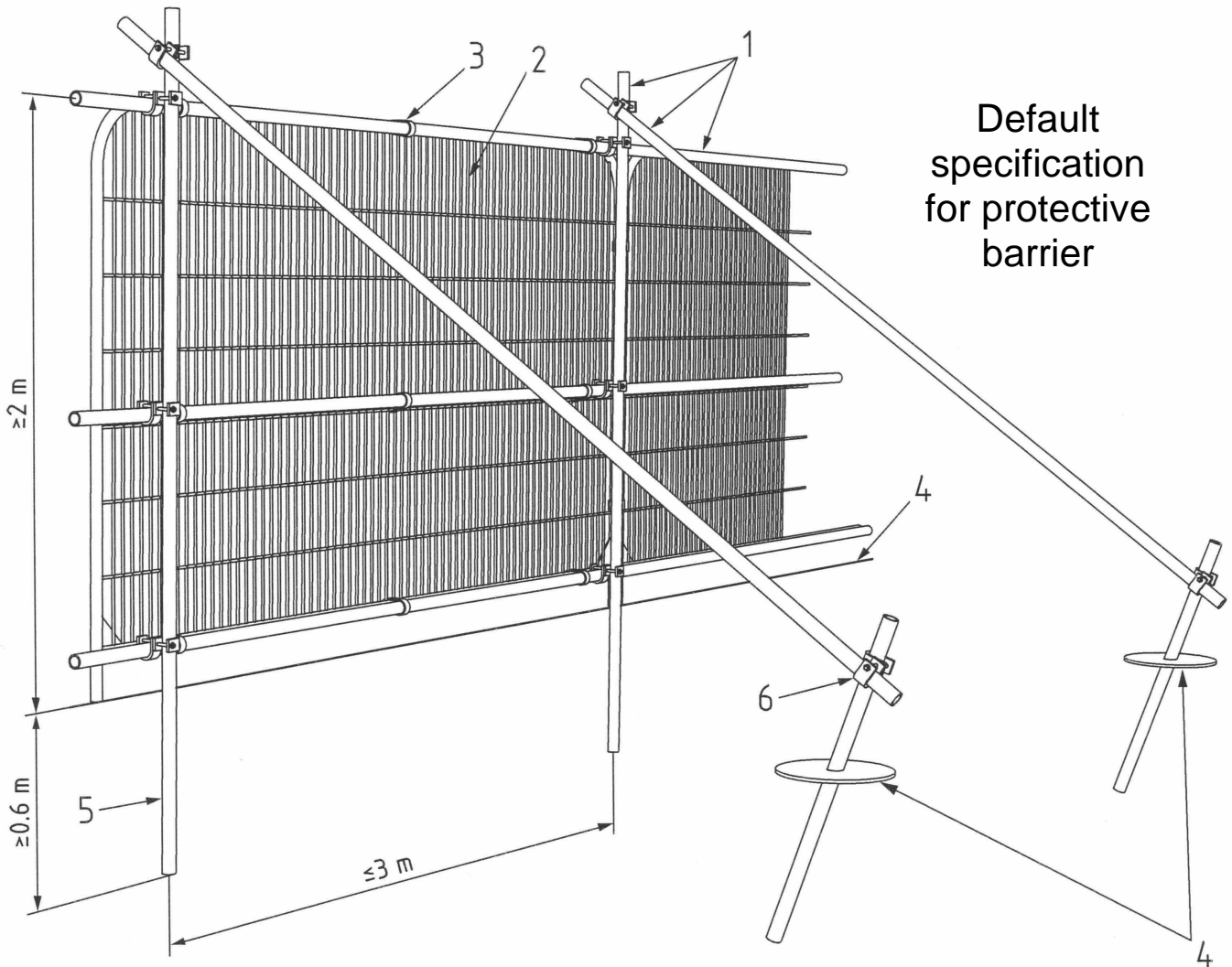
Notes

YES: A licence is not required but continue to sections 6 and 7 below
NO: You will need to obtain a licence BEFORE carrying out the work (see EPS Licence Application Forms and Notes)

NO: You may commit an offence if you do not tell your operators about the protected species in your wood.

NO: You may commit an offence if you do not take steps to ensure that your operators comply with the Good Practice guidance.

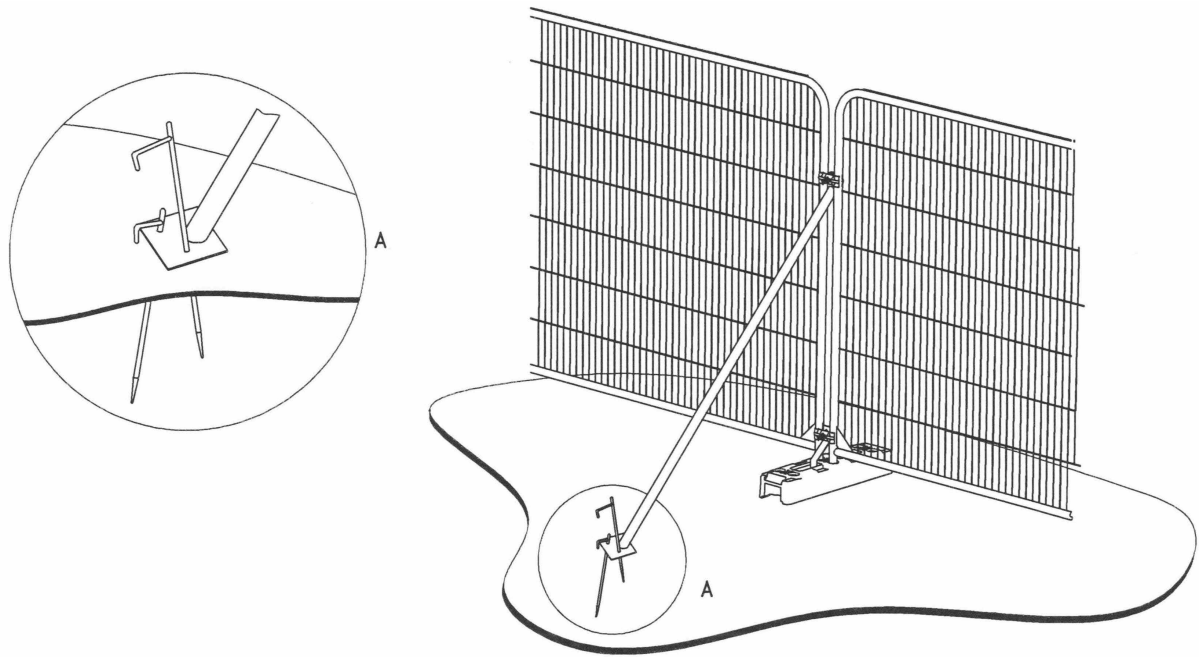
3. BS 5837:2012 Figure 2: Default specification for protective barrier



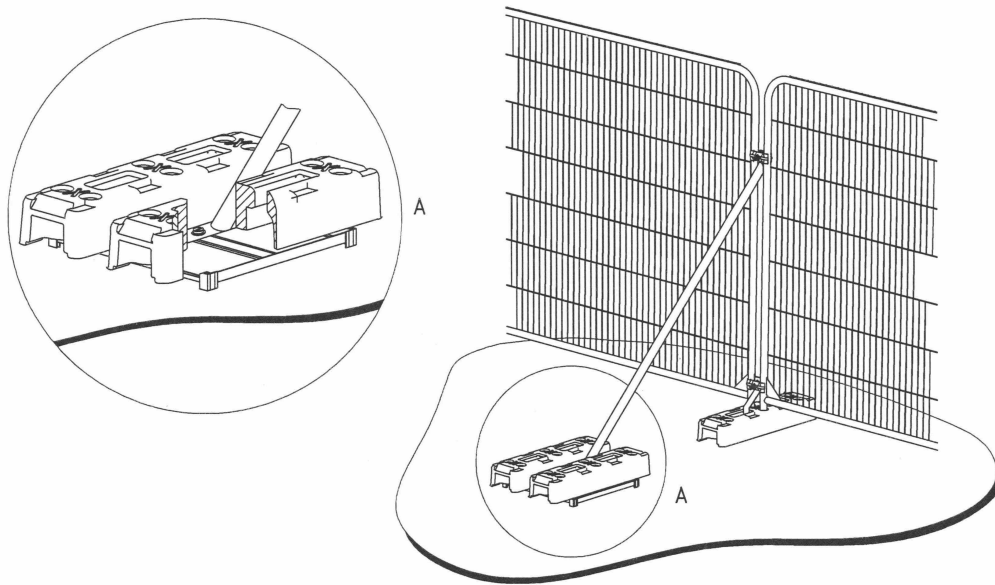
Key

- 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

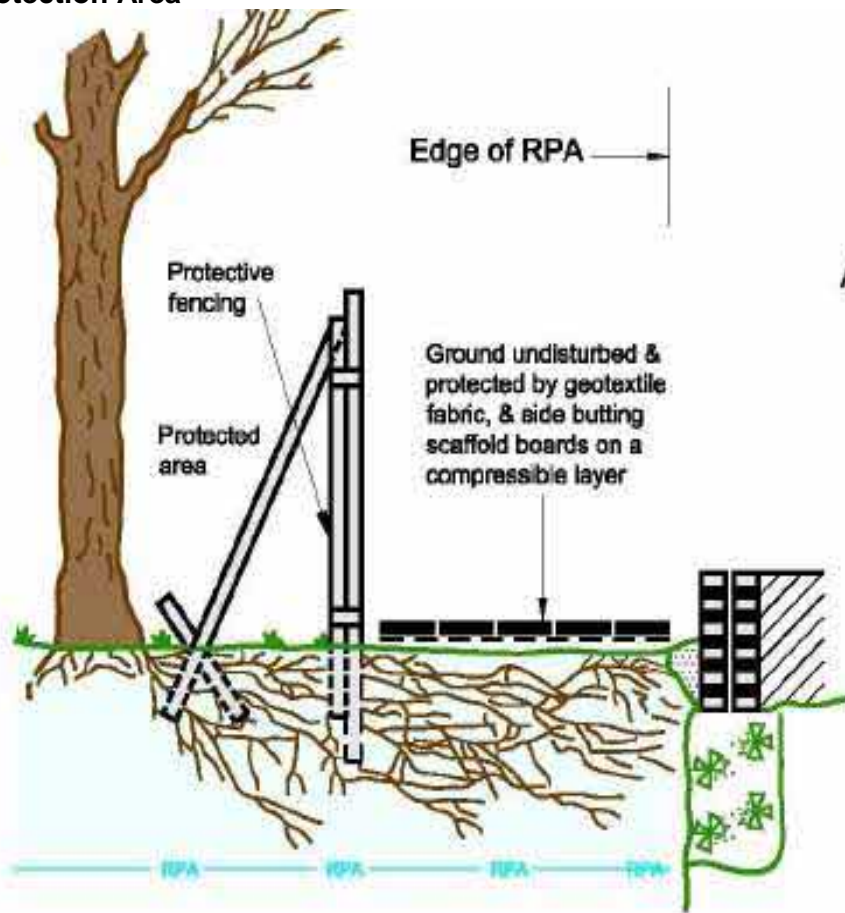


a) Stabilizer strut with base plate secured with ground pins



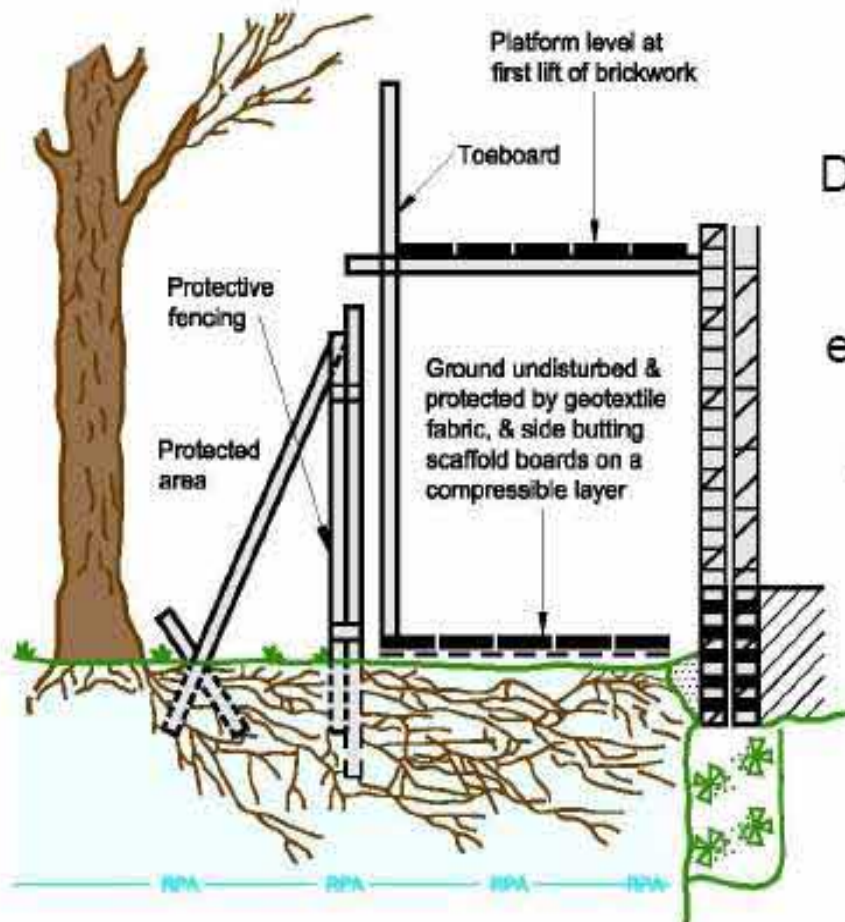
b) Stabilizer strut mounted on block tray

5. Figure 4 Detail of protective barrier where construction encroaches within BS5837:2012 Root Protection Area



Appendix No 2.1

Figure 4 –



Detail of protective barrier where construction encroaches within BS 5837:2012 Root Protection Area (RPA)



MultiTrack

THE UNBREAKABLE ORIGINAL



RAPID INSTALLATION

Lay approximately 50 mats per hour.*

TOUGH

Virtually indestructible HDPE polymer supports all vehicle types.

EASY TO HANDLE

Lightweight 39kg mats easily handleable with two workers.

MULTI-TREAD

Roadway, Walkway and Smooth tread options cater for various vehicular and pedestrian needs.

ENVIRONMENTALLY FRIENDLY

Made from 100% recycled plastic and fully recyclable.

GUARANTEED UNBREAKABLE

Lifetime guarantee against breakage by vehicles up to 120 tonnes (T&Cs apply).

**NO CRANES OR
SPECIALIST
LIFTING
EQUIPMENT
NEEDED!**

****FAST, EASY, ECONOMICAL***
Install approximately 50 mats
per hour with a team of
3 plus forklift driver.

www.ground-guards.co.uk

+44 (0) 113 267 6000

info@ground-guards.co.uk

Ground-Guards®



MultiTrack

THE UNBREAKABLE ORIGINAL



Watch this short video to see MultiTrack in action.



MultiTrack mats are the strongest in their category



Mats are easily moved using a hand truck



Standard no-tools joiners quickly clip the mats together



Low profile joiners for walkways plus hand truck



SafeStack stilages hold 25 mats

Material: Special blend of HDPE recycled plastic, fully recyclable

Overall Size: 2435 x 1215 x 13mm (plus treads)

Surface Area: 2.95m²

Weight: 39kg

Tread Options: Roadway, Walkway and Smooth, or a combination

Connectors: 10 joining points. A choice of standard clip joiners, low profile joiners or bolted joiners, plus anchor pins.

Packed in: Stillage of 25 mats

Stillage Pack Weight: 1105kg

Dimensions: 2550 x 1260 x 900mm

Fire Rating: UL94 HB

Slip Testing: BS7976 part 2

Deflection: Tested on varying CBR ground conditions using a 300mm diameter steel platen with 6 tonnes load to simulate the pressure of an HGV wheel

Ground CBR 11.35%: Deflection 17.68mm

Ground CBR 8.58%: Deflection 20.41mm

Ground CBR 4%: Deflection 22.00mm

Guarantee:

MultiTrack temporary roadway mats are guaranteed for life against breakage up to 120 Tonnes UDL (Uniformly Distributed Load).

It is the user's responsibility to assess the load-bearing capacity of the ground, and to only operate vehicles within the weight that the ground is capable of safely supporting. Ground-Guards Ltd accepts no liability whatsoever for any damage, loss or injury arising from the ground conditions on which these products are used.

MultiTrack mats are not suitable to use for bridging purposes. Damage caused by mechanical equipment (e.g. cuts by digger buckets or sharp protrusions beneath the mats) is not covered by this guarantee.



Ground-Guards

www.ground-guards.co.uk
+44 (0) 113 267 6000
info@ground-guards.co.uk

Appendix H

Drawing no. 8859-D-AIA Rev A

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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