HAYDEN'S
Arboricultural Consultants

TREE SURVEY & CONSTRAINTS PLAN
IN ACCORDANCE WITH BS 5837:2012

Proj. No **10399**	**Rose Cottage, Middlewood Green, Stowmarket, IP14 5HB**
Client:	PJT Design
Date of Report:	25/07/2023

Contact Details

Client – PJT Design			
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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 PJT Design to prepare a Tree Survey and Constraints Plan for the existing trees at Rose Cottage, Middlewood Green, Stowmarket, IP14 5HB.

1.1.2 The site survey was carried out on the 14/07/2023. 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 required to allow their retention as a sustainable and integral part of any future permitted 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 from Pete Tonks dated 27th June 2023
- Definition of site boundary
- Topographical survey

2.0 The Site

2.1 Site Overview

2.1.1 The site is Rose Cottage, Middlewood Green, Stowmarket, IP14 5HB.

2.2 Soils

2.2.1 The soils type commonly associated with this site are slowly permeable and seasonally wet, slightly acid but base-rich loams and clays. They are of moderate fertility and mainly support seasonally wet pastures and woodlands type habitats. This soil type constitutes approximately 19.9% 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 Mid Suffolk District Council prior to commencing works to trees. It should be noted however, that Mid Suffolk District Council 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 local planning authority prior to commencing works to ensure that the situation has not changed.

This information was sourced using the Local Planning Authority's Online Mapping System (as instructed by them) and to our best knowledge was current and accurate at the time the information was accessed. We would advise it prudent that before any tree work commences, this is checked directly with the Local Planning Authority to confirm that their online mapping system is definitive.

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.

2.3.3 Hedgerow Regulations and Inclosure Act

Certain hedgerows within the United Kingdom are protected under The Hedgerow Regulations 1997. The regulations apply to any hedgerow growing in, or adjacent to, any common land, protected land (local nature reserves and SSSIs), or land used for agriculture, forestry or the breeding or keeping of horses, ponies or donkeys, if it: (a) has a continuous length of, or exceeding 20m; or (b) it has a continuous length of less than 20m and, at each end, meets another hedgerow. The regulations do not apply to hedgerows within the curtilage of, or marking a boundary of the curtilage of, a dwelling house.

Anybody wishing to remove or destroy a hedge must apply to their Local Planning Authority (LPA) for consent. Substantial fines exist for not complying with the requirements The Hedgerow Regulations.

Older hedges could be protected by old Inclosure Acts. These Acts may require that hedges are retained and managed forever more.

It is recommended professional legal advice be sought before removing hedgerows to determine whether the hedgerow might be protected by an Inclosure Act. Many Inclosure Acts are deposited in Local Records Offices.

3.0 Tree Survey

3.1 As part of this survey a total of twenty-six individual trees, one group of trees, five areas of trees and two hedges have been identified. These have been numbered T001 – T026, G001, A001 – A005 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. 10399-D-CP.

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 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:

T010	Monitor the condition of the tree for further signs of deterioration.
T015	Monitor dieback.
T018	Monitor dieback.

Recorded within this tree survey are the approximate locations of dead trees of low risk to persons or property. These are denoted on drawing no. 10399-D-CP with a red symbol, as per the drawing key. As there is little health and safety concern with regards to these identified trees, it is to the landowners discretion whether they are removed or left in situ (i.e., for wildlife/habitat purposes).

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 Constraints Upon Proposed Development

4.1 Physical Extent of the Trees

4.1.1 The Root Protection Areas (RPA) for the trees deemed worthy of retention are indicated on the attached Drawing No.10399-D-CP. These define the below ground constraints of the trees.

4.1.2 The crown spreads of the trees deemed worthy of retention are also indicated on the attached Drawing No.10399-D-CP. These define the above ground constraints of the trees.

4.2 Design Considerations

4.2.1 The combination of the above and below ground constraints outlined at 4.1 above, should be used to inform the layout and design of any proposed development by considering the following principal factors;

4.2.2 **Siting.** The footprint of any proposed building should be no closer than 2.5 metres from the edge of any RPA or crown spread (whichever is larger) of any trees to be retained. It must also be understood that if the retained tree has not reached its full mature size, further space may need to be allowed for in order to accommodate future growth. This spacing is required to ensure that sufficient room is provided to allow the construction of the proposed development without any encroachment into the RPA or under the crown spread. If it is considered acceptable and justifiable to construct within the RPA, specialist engineering techniques (e.g. cantilever, piling, or pad and above ground beam foundations) and ground protection measures will be required to minimise the impact on the roots.

4.2.3 **Practicality.** It is important to ensure that any garden attached to a dwelling has a significant area of open ground that is not covered by the crowns of retained trees.

4.2.4 **Shade.** Consideration will be needed regarding the size, positioning and aspect of windows, together with the internal layout of dwellings in close proximity to trees to ensure sufficient daylight enters rooms or buildings. Consideration should also be given to the future growth potential of trees in close proximity to prospective development.

4.2.5 **Water Demand.** The water demand of the trees deemed worthy of retention, as listed by the NHBC, is given in the attached *Schedule of Trees* in order to inform the foundation design process.

4.3 Construction Measures

4.3.1 In order to ensure that trees intended for retention are not harmed during the construction processes, the following matters require consideration and implementation as necessary. Please note that once the design is finalised, Hayden's Arboricultural Consultants will provide a Preliminary Arboricultural Method Statement & Tree Protection Plan that will satisfy the requirements for obtaining planning permission.

4.3.2 **Protective Fencing.** The trees to be retained will need to be protected by the use of stout barrier fencing. This fencing must be in accordance with the requirements of BS 5837:2012 and will be erected prior to any development on the site, therefore ensuring the maximum protection. All tree protection barrier fencing will be regarded as sacrosanct and, once erected, will not be removed or altered without the prior consent of the Local Planning Authority Arboricultural Officer.

4.3.3 **Services.** Ideally, all service runs will be routed outside of the RPA of any retained trees. If a service has to be installed across an RPA, works must be undertaken in accordance the guidance of the National Joint Utilities Group Guidance Note 4 "*Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees*" (NJUG 4 paragraph 4) and installation of such a method as to reduce any possible detrimental effect on roots to an absolute minimum.

4.3.4 **Hard Surfaces.** Hard surfaces may be constructed under the crown spreads of retained trees and within the RPA if specific detail is paid to the design and specification. In these areas, the design will comply with the principles of the Arboricultural Advisory Information Services (AAIS) Practice Note 12 "*Through the Trees to Development*" - the only difference being that instead of a geo-grid, a geo-textile base is provided, and the no-fines road stone is incorporated in, and retained by, a geo-web cellular confinement system. Given the individual requirements of each site, it is essential that a specialist engineer is consulted to specify the construction detail. Where the hard surface proposed is impermeable, it must not cover more than 20% of the RPA. Larger extents of permeable surfacing may be acceptable, dependent on the individual circumstances of the site.

5.0 Conclusions

5.1 The site is Rose Cottage, Middlewood Green, Stowmarket, IP14 5HB. This location has been subjected to a total health and safety inspection, together with a consideration of the tree related constraints on development.

5.2 Within the area specified for inspection, a total of twenty-six individual trees, five areas of trees, one group of trees and two hedges have been surveyed. These were found to be of mixed condition and age providing a variety of amenity benefits.

5.3 Consideration is being given to undertaking development within the site, but no definite layout has as yet been determined.

5.4 Ideally, all development should take place outside the RPA of the trees considered most worthy or appropriate for retention thus allowing a traditional construction process. It is usually technically possible (though not necessarily desirable) to build within a very limited portion of the RPA of one or more trees using specialist engineering techniques, but inevitably this is more difficult and expensive than traditional construction methods and may not be acceptable to the local planning authority.

5.5 Irrespective of any development proposals, a number of trees require attention as detailed items in the *Schedule of Trees.*

6.0 Recommendations

6.1 It is recommended that the siting and design of the layout considers the presence of trees, particularly the highest quality, and where feasible seeks to incorporate them within any proposed development.

6.2 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.

6.3 The tree surgery works proposed as part of the Survey are recommended to mitigate any identified health and safety problems and to promote longevity in retained trees in the context of a potential development site. 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:

July 2023……
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.

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

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9.0 Appendices

Appendix	**A**	Species List & Tree Problems
Appendix	**B**	Schedule of Trees
Appendix	**C**	Schedule of Works - Irrespective of Development
Appendix	**D**	Explanatory Notes
Appendix	**E**	Tree Preservation Order Enquiry/Response
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 Checklist (v.4)
3. BS 5837:2012 Figure 2 - Default specification for protective barrier
4. BS 5837:2012 Figure 3 - Examples of above-ground stabilising systems

Appendix	**G**	Drawing No 10399-D-CP

Appendix A - Species List & Tree Problems

Species List:

Apple	*Malus*
Ash	*Fraxinus excelsior*
Beech	*Fagus sylvatica*
Bullace Plum	*Prunus domestica*
Cherry	*Prunus*
Elm	*Ulmus*
English Oak	*Quercus robur*
European Lime	*Tilia x europaea*
Field Maple	*Acer campestre*
Hawthorn	*Crataegus monogyna*
Hazel	*Corylus avellana*
Holly	*Ilex aquifolium*
Horse Chestnut	*Aesculus hippocastanum*
Mountain Ash/Rowan	*Sorbus aucuparia*
Norway Spruce	*Picea abies*
Pear	*Pyrus*
Silver Birch	*Betula pendula*
Sycamore	*Acer pseudoplatanus*
Walnut	*Juglans regia*

Tree Problems:

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

Name: Deadwood	
Symptoms/damage type and cause:	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:	Detailed monitoring should be undertaken on those trees showing signs of excessive deadwood production to identify the underlying cause.
Species affected:	Most tree species.
Images:	 

Name: Epicormic growth	
Symptoms/damage type and cause:	This is the production of numerous shoots on the main stem and branches of the tree. They are produced by the bursting into life of otherwise dormant buds. It is commonly associated with elevated levels of stress on the tree.
Consequence:	Whilst epicormic growth is usually symptomatic of an issue elsewhere within the tree, heavy proliferation can cause the trees resources to become depleted or may mask significant structural weaknesses within the framework of the tree.
Control:	Pruning off epicormic growth may be necessary to improve the visual amenity of the tree or prevent the development of a hazard or obstruction. No direct means of prevention are available other than therapeutic measures to alleviate stresses on the tree.
Species affected:	Most tree species, including European Lime, Willow species, Sweet Chestnut, and Silver Maple.
Images:	  

Name: *Hedera helix* **(Ivy)**	
Symptoms/damage type and cause:	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. Ivy can also mask potentially dangerous faults on a tree.
Control:	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 whist relieving the pressure on the tree.
Species affected:	Most trees can be affected.
Images:	 

Name: *Phellinus pomaceus* **(Cushion Fungus)**	
Symptoms/damage type and cause:	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.
Consequence:	The consequence will often be a brittle stem fracture, usually near the fruiting body.
Control:	Affected tissues may be removed by pruning where the location of infection allows.
Species affected:	*Prunus spp.*

Appendix B

Schedule of Trees

SCHEDULE OF TREES

Rose Cottage, Middlewood Green, Stowmarket,

Surveyed By: Matthew Plane-Da'Silva Date: 14/07/2023
Managed By: Matthew Plane-Da'Silva

TreeNo	Species	DBH	Height		Visual	Crown Spread	Problems / Comments	BS Cat	Work Required	Priority
		Min Dist	Crown Base	Lowest Branch	Age	Water Demand				
On site		RPA (m^2)	Aspect	Aspect	SULE	Ground Cover				
A001	Beech	80	2.3		Low	N1, E1, S1, W1	Well managed hedgerow. Low value.	C1	No work required.	4
		0.96	0		SM	Moderate				
Yes		2.9			20+ years	Dense undergrowth				
A002	Beech, Holly, Hawthorn, Apple Spp	250	12		Moderate	N3, E3, S3, W3	Area of mixed species, varying in size and condition. Dense undergrowth which has restricted a full detailed inspection.	B2	No work required.	4
		3	1		SM	High				
Yes		28.3			20+ years	Dense undergrowth				
A003	European Lime, Birch Spp, Ash, Field Maple, English Oak	300	14		Moderate	N4, E4, S4, W4	The area contains tree's of differing species. All DBHs have been collected separately. Overall the trees contained within the feature are of a good physiological condition. Branches are low over the access route to the north western side which offers access to the rear of the barn.	B2	No work required.	4
		3.6	2		SM	High				
Yes		40.7			20+ years	Light undergrowth				
A004	Hazel, Field Maple, Elm Spp, Norway Spruce, Sycamore, Ash, Birch Spp	280	16		Moderate	N3, E3, S3, W3	The feature contains a mixture of species in varying size and condition. Some dead trees are located within the feature. Branches have been pruned back on the site side to allow clear access over the existing informal track.	B2	No work required.	4
		3.36	2		SM	Moderate				
Yes		35.5			20+ years	Dense undergrowth				
A005	European Lime, Pear Spp, Walnut, Beech, Horse Chestnut, Ash, Holly, Silver Birch	320	13		Moderate	N3, E3, S3, W3	Area of trees containing a mixture of species. The worst trees have been plotted separately. Unable to inspect all the main stems due to vegetation; this is mostly in regards to the trees which are located around the boundary edge.	B2	No work required.	4
		3.84	1		SM	Moderate				
Yes		46.3			20+ years	Light undergrowth				
G001	Ash	350	17		Moderate	N4, E4, S4, W4	Unable to inspect the main stems and union points as the trees are contained in a dense area of trees with Ivy present. Unknown if the trees are owned by the site owner. The crowns appears to be healthy.	B2	No work required.	4
		4.2	7		EM	Moderate				
Yes		55.4			20+ years	Dense undergrowth				
H001	Hawthorn, Cherry Spp	50	2		Moderate	N0.5, E0.5, S0.5, W0.5	Linear feature acting as a site boundary line. Low value.	C2	No work required.	4
		0.6	0		SM	High				
Yes		1.1			20+ years	Dense undergrowth				

TreeNo	Species	DBH	Height		Visual	Crown Spread	Problems / Comments	BS Cat	Work Required	Priority
		Min Dist	Crown Base	Lowest Branch	Age	Water Demand				
On site		RPA (m^2)	Aspect	Aspect	SULE	Ground Cover				
H002	Field Maple, Hawthorn	200	6		Moderate	N2.5, E2.5, S2.5, W2.5	Well established feature which provides good screening for the property.	B2	No work required.	4
		2.4	0		SM	High				
Yes		18.1			20+ years	Dense undergrowth				
T001	Betula Pendula	150	9		Moderate	N2, E2, S2, W2	The tree is located in a hedgerow. No significant defects at time of inspection. Limited growing potential due to neighbouring tree.	B1	No work required.	4
		1.8	3		SM	Low				
Yes		10.2			20+ years	Dense undergrowth				
T002	Sorbus Aucuparia	70	3		Low	N0.5, E0.5, S0.5, W0.5	Young Sorbus tree. No significant defects at time of inspection. Deemed to be of low value.	C1	No work required.	4
		0.84	1		Y	Moderate				
Yes		2.2			40+ years	Grass				
T003	Betula Pendula	370	14		Moderate	N4, E4, S4, W4	The tree is in a good physiological condition with no significant defects at time of inspection. The branches on the northern aspect have been well managed over the existing driveway access.	B1	No work required.	4
		4.44	1		EM	Low				
Yes		61.9			20+ years	Grass				
T004	Sorbus Aucuparia	100	7		Moderate	N1.5, E1.5, S1.5, W1.5	The tree is located in a hedgerow. No significant defects at time of inspection.	B1	No work required.	4
		1.2	1.8		Y	Moderate				
Yes		4.5			20+ years	Dense undergrowth				
T005	Beech Sp	220	13		Moderate	N3.5, E3, S3, W3	The tree is in a good physiological condition with no significant defects at time of inspection. Ivy restricts a full inspection of the main stem.	B1	No work required.	4
		2.64	0.5		SM	Moderate				
Yes		21.9			20+ years	Dense undergrowth				
T006	Prunus Domestica	260	7		Low	N2, E3, S4, W4	Unable to access the base of the tree due to vegetation. The union point appears to be suboptimal however unable to undertake a full assessment. The main stem which extends towards the southern aspect could become problematic as it matures given the union point. The tree offers low value.	C1	No work required.	4
		3.12	0.5		EM	Moderate				
Yes		30.6			10+ years	Dense undergrowth				
T007	Quercus Robur	510	17		Moderate	N3, E7, S7, W8	The tree appears to be in a good overall condition, foliage is a bit sparse than what would be expected. Inner Epicormic growth within the tree's crown, possibly indicating signs of stress.	B1	No work required.	4
		6.12	3.5		SM	High				
Yes		117.7			20+ years	Light undergrowth				

TreeNo	Species	DBH	Height		Visual	Crown Spread	Problems / Comments	BS Cat	Work Required	Priority
		Min Dist	Crown Base	Lowest Branch	Age	Water Demand				
On site		RPA (m^2)	Aspect	Aspect	SULE	Ground Cover				
T008	Elm Sp	320	13		Low	N2, E1.5, S1, W3	The tree is in a poor overall condition with signs of dieback in the canopy.	U	No work required.	4
		3.84	8		SM	High				
Yes		46.3			<10 years	Light undergrowth				
T009	Field Maple	660	15		Moderate	N5, E4, S5, W4	The tree bifurcates at ground level, it is clear to see that it originates from the same rooting stock due to the proximity of the two stems. The tree is in a good physiological condition with no significant defects at time of inspection.	B1	No work required.	4
		7.92	3.5		M	Moderate				
Yes		197.1			20+ years	Light undergrowth				
T010	Ash	650	15		Moderate	N6, E4, S3.5, W3.5	From what can be seen the main union point appears to be stable at the time of inspection. The upper canopy however contains large amount of dieback and deadwood, most noticeably on the western aspect.	C1	Monitor the condition of the tree for further signs of deterioration.	3
		7.8	6		M	Moderate				
Yes		191.1			10+ years	Light undergrowth				
T011	Malus Sp	220	3		Low	N1.5, E1.5, S1.5, W1.5	The tree has dysfunction in the maim stem. Past arboricultural works have been undertaken. Poor overall condition.	U	Consider removal, limited life expectancy.	3
		2.64	1.5		M	Moderate				
Yes		21.9			<10 years	Light undergrowth				
T012	Field Maple	320	14		Moderate	N3, E3, S1.5, W3	No significant defects at time of inspection.	B1	No work required.	4
		3.84	3		SM	Moderate				
Yes		46.3			20+ years	Grass				
T013	Birch	40	13		Moderate	N2, E1.5, S2.5, W3	The tree has been actively managed over the access point. Lowest branches are on the western aspect. No significant defects at time of inspection.	B1	No work required.	4
		0.48	1		EM	Low				
Yes		0.7			20+ years	Light undergrowth				
T014	Ash	320	14		Moderate	N3.5, E2, S4, W4	Located in a hedgerow therefore a full inspection of the base is restricted. The presence of Ivy also hinders inspection. Minor deadwood.	B1	No work required.	4
		3.84	2		EM	Moderate				
Yes		46.3			20+ years	Dense undergrowth				
T015	Ash	200	12		Low	N2, E2, S2, W2	Located in a hedgerow, therefore a full inspection of the base is restricted. The presence of Ivy also hinders inspection. Minor deadwood. Deadwood starting to accumulate in the crown.	C1	Monitor dieback.	3
		2.4	3		SM	Moderate				
Yes		18.1			10+ years	Dense undergrowth				

TreeNo	Species	DBH	Height		Visual	Crown Spread	Problems / Comments	BS Cat	Work Required	Priority
		Min Dist	Crown Base	Lowest Branch	Age	Water Demand				
On site		RPA (m^2)	Aspect	Aspect	SULE	Ground Cover				
T016	Sycamore	150	8		Low	N2, E1, S2, W2	Located in a hedgerow, therefore a full inspection of the base is restricted. The presence of Ivy also hinders inspection. Limited growing potential due to neighbouring tree.	B3	No work required.	4
		1.8	2		SM	Moderate				
Yes		10.2			20+ years	Dense undergrowth				
T017	Betula Pendula	100	4		Low	N2, E1, S1, W1	Young Birch tree. Low value and little merit.	C1	No work required.	4
		1.2	1.8		Y	Low				
Yes		4.5			10+ years	Light undergrowth				
T018	Ash	450	16		Moderate	N7, E4.5, S6, W8	The tree is starting to accumulate deadwood in its crown. No signs of fungal activity.	C1	Monitor dieback.	3
		5.4	3		M	Moderate				
Yes		91.6			10+ years	Light undergrowth				
T019	Pear	100	2		Low	N1, E1, S1, W1	No significant defects at time of inspection. Low value and little merit.	C1	No work required.	4
		1.2	1		Y	Moderate				
Yes		4.5			20+ years	Grass				
T020	Pine	560	17		Moderate	N6, E6, S6, W6	The tree has a sparse canopy from what you would expect of a tree that this stage of maturity. Minor deadwood is starting to accumulate in the crown.	B1	No work required.	4
		6.72	2		M	Moderate				
Yes		141.9			20+ years	Grass				
T021	Malus	80	2		Low	N1, E1, S1, W1	Low value and little merit.	C1	No work required.	4
		0.96	0.5		SM	Moderate				
Yes		2.9			20+ years	Grass				
T022	Betula Pendula	490	15		Moderate	N6, E5, S4.5, W5.5	No significant defects at time of inspection. The tree appears to be in a good physiological condition with a large amount of healthy foliage throughout.	B1	No work required.	4
		5.88	2		M	Low				
Yes		108.6			20+ years	Grass				
T023	Malus Sp	250	6		Low	N1, E1, S2, W2	The tree has deadwood located in the main canopy. Cushion fungus is also present.	C1	No work required.	4
		3	1.5		SM	Moderate				
Yes		28.3			10+ years	Grass				

TreeNo	Species	DBH	Height		Visual	Crown Spread	Problems / Comments	BS Cat	Work Required	Priority
		Min Dist	Crown Base	Lowest Branch	Age	Water Demand				
On site		RPA (m^2)	Aspect	Aspect	SULE	Ground Cover				
T024	Malus Sp	140	6		Low	N1, E1, S2, W2	The tree has deadwood located in the main canopy. Cushion fungus is also present.	C1	No work required.	4
		1.68	1.5		SM	Moderate				
Yes		8.9			10+ years	Grass				
T025	Malus Sp	200	6		Low	N1, E1, S3, W1	The tree is in a poor overall condition with Cushion fungus present. Limited crown structure, cavities present in the main stems.	U	Consider removal, limited life expectancy.	3
		2.4	1.5		SM	Moderate				
Yes		18.1			<10 years	Grass				
T026	Malus Sp	240	7		Low	N1, E1, S2.5, W1	The tree is in a poor overall condition. Multiple woodpecker holes in the main stem. Die back of the upper canopy also present.	U	Consider removal, limited life expectancy.	3
		2.88	2.5		SM	Moderate				
Yes		26.1			<10 years	Grass				

Appendix C

Schedule of Works

SCHEDULE OF WORK

Rose Cottage, Middlewood Green, Stowmarket,

Surveyed By: Matthew Plane-Da'Silva
Surveyed: 14/07/2023
Managed By: Matthew Plane-Da'Silva

Tree No.	Species	Work required	Priority
T011	Malus Sp	Consider removal, limited life expectancy.	**3**
T025	Malus Sp	Consider removal, limited life expectancy.	**3**
T026	Malus Sp	Consider removal, limited life expectancy.	**3**

Schedule of Enhanced Monitoring

Rose Cottage, Middlewood Green, Stowmarket,

Surveyed By: Matthew Plane-Da'Silva
Surveyed: 14/07/2023
Managed By: Matthew Plane-Da'Silva

Tree No.	Species	Work required	Priority
T010	Ash	Monitor the condition of the tree for further signs of deterioration.	**3**
T015	Ash	Monitor dieback.	**3**
T018	Ash	Monitor dieback.	**3**

Appendix D

Explanatory Notes

Explanatory Notes

HAYDEN'S Arboricultural Consultants

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.

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.

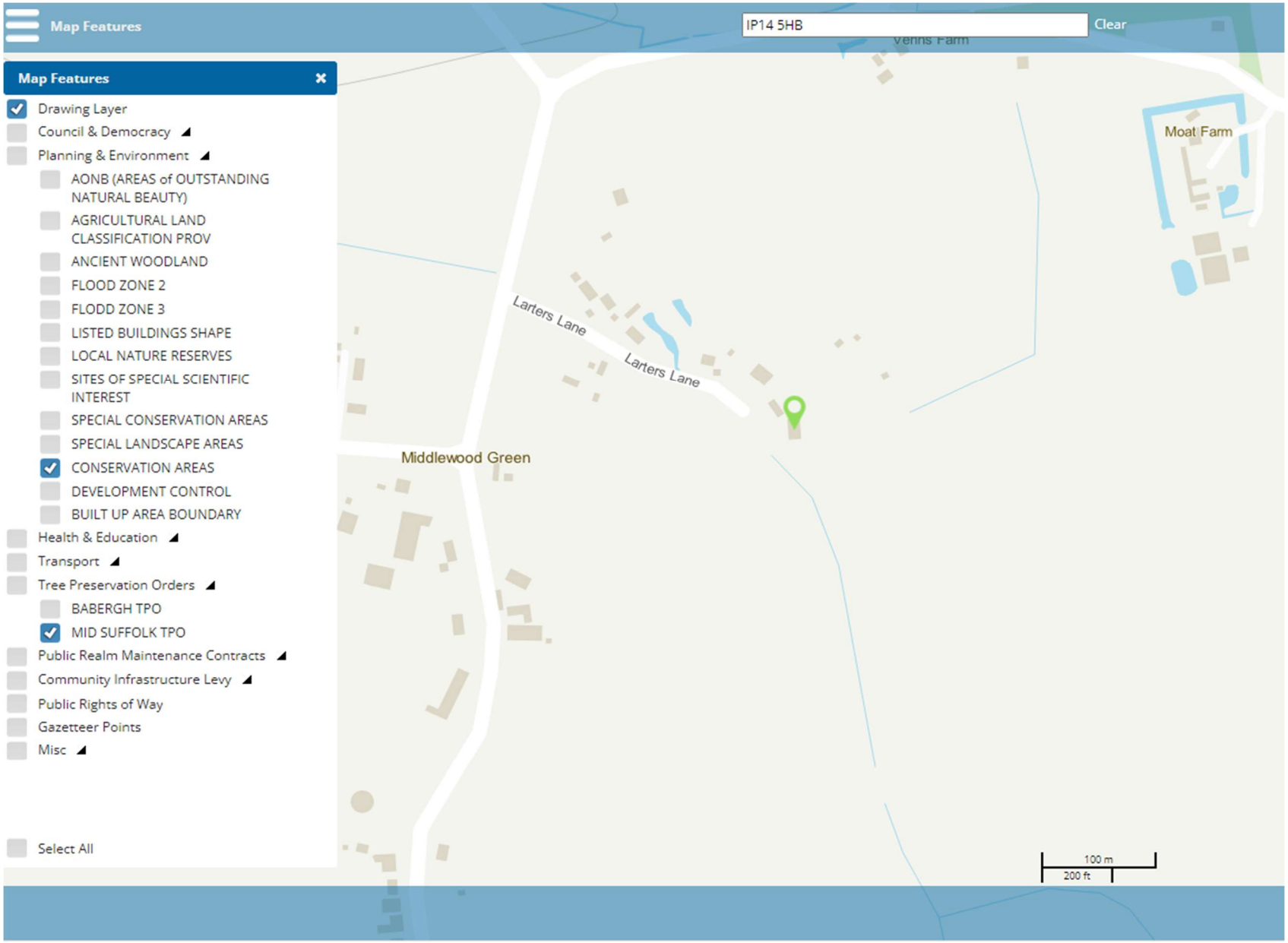
Work Required (AIA)	Identifies the tree work specifically necessary to allow a proposed development to proceed.
Priority	This gives a priority rating to each tree allowing the client to prioritise necessary tree works identified within the Tree Survey. **1** Urgent – works required immediately; **2** 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. *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.*
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 E

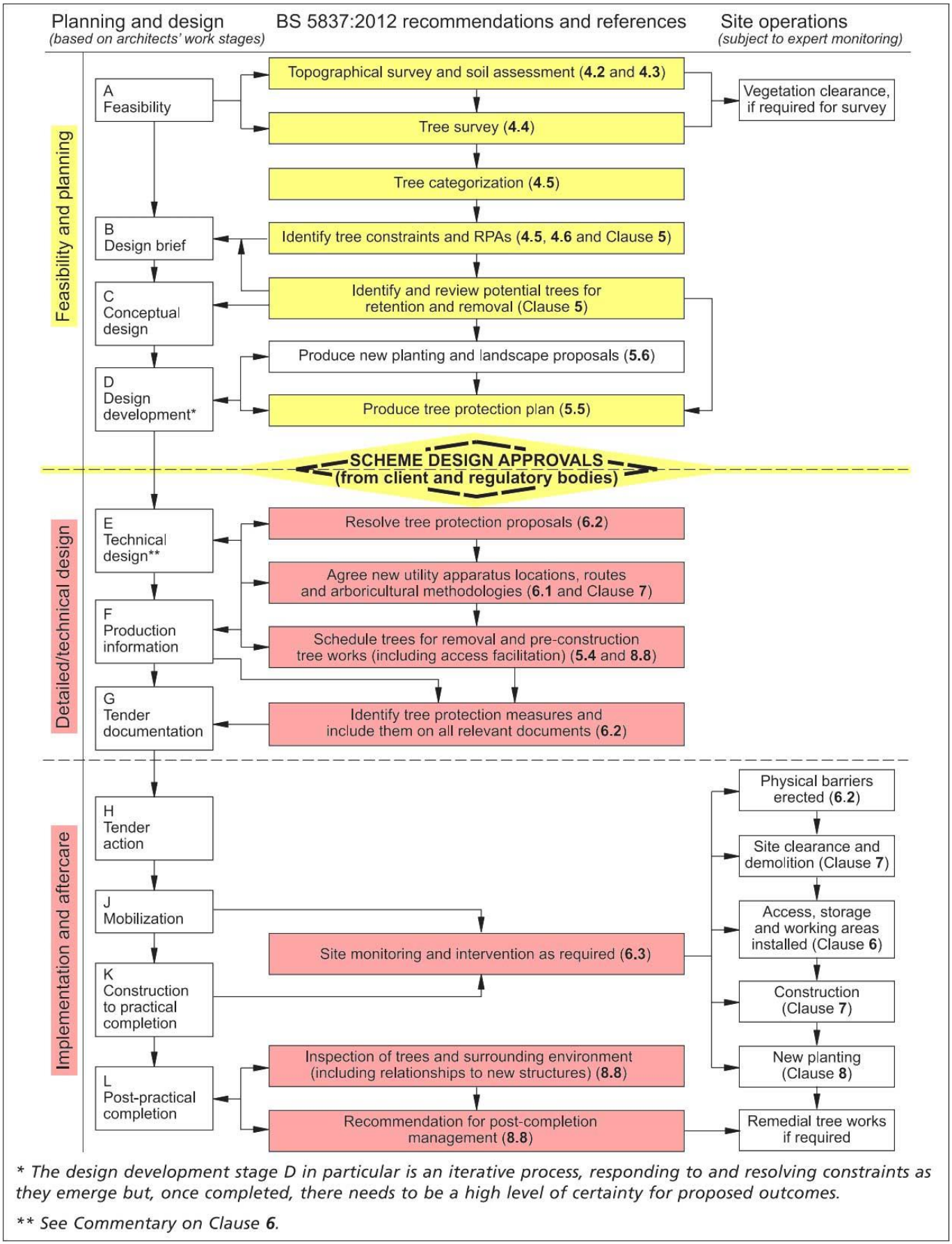
Tree Preservation Order Enquiry/Response


Map Features
IP14 5HB
Clear
Map Features
Drawing Layer
Council & Democracy
Planning & Environment
AONB (AREAS of OUTSTANDING NATURAL BEAUTY)
AGRICULTURAL LAND CLASSIFICATION PROV
ANCIENT WOODLAND
FLOOD ZONE 2
FLODD ZONE 3
LISTED BUILDINGS SHAPE
LOCAL NATURE RESERVES
SITES OF SPECIAL SCIENTIFIC INTEREST
SPECIAL CONSERVATION AREAS
SPECIAL LANDSCAPE AREAS
CONSERVATION AREAS
DEVELOPMENT CONTROL
BUILT UP AREA BOUNDARY
Health & Education
Transport
Tree Preservation Orders
BABERGH TPO
MID SUFFOLK TPO
Public Realm Maintenance Contracts
Community Infrastructure Levy
Public Rights of Way
Gazetteer Points
Misc
Select All
Venns Farm
Moat Farm
Larters Lane
Larters Lane
Middlewood Green
100 m
200 ft

Appendix F

Advisory Information & Sample Specifications

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



** The design development stage D in particular is an iterative process, responding to and resolving constraints as they emerge but, once completed, there needs to be a high level of certainty for proposed outcomes.*

*** See Commentary on Clause **6**.*

2.

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 -

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

YES ☐ NO ☐

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

- ☐ 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

YES ☐ NO ☐

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:

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

Specify Other:

YES ☐ NO ☐

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

- ☐ 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:

YES ☐ NO ☐

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.

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.

- ☐ 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:

YES ☐ NO ☐

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

YES ☐ NO ☐

Details

Name of Wood:

Grid Reference:

Area: (ha) .

Date of Assessment:

Name of Assessor:

Notes

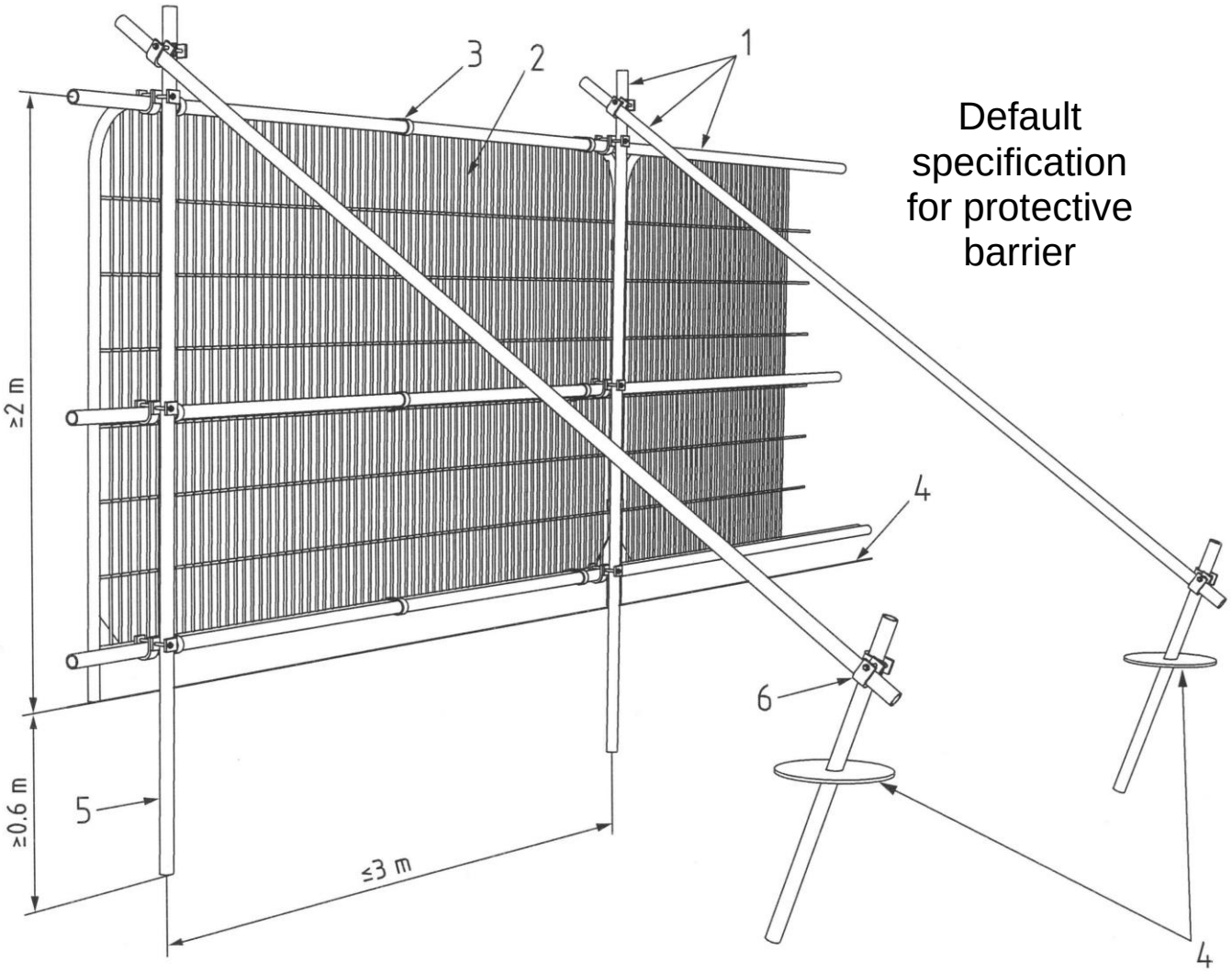
A licence is not required but continue to sections 6 and 7 below

You will need to obtain a licence BEFORE carrying out the work (see EPS Licence Application Forms and Notes)

You may commit an offence if you do not tell your operators about the protected species in your wood.

You may commit an offence if you do not take steps to ensure that your operators comply with the Good Practice guidance.

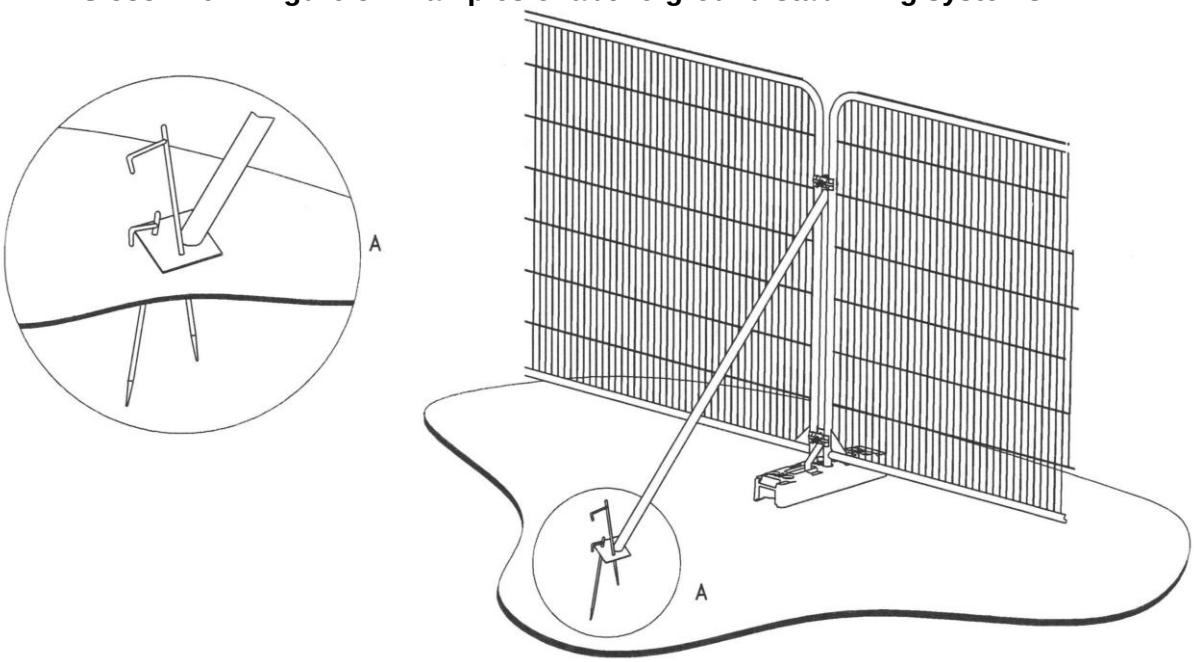
3. BS 5837:2012 Figure 2: Default specification for protective barrier



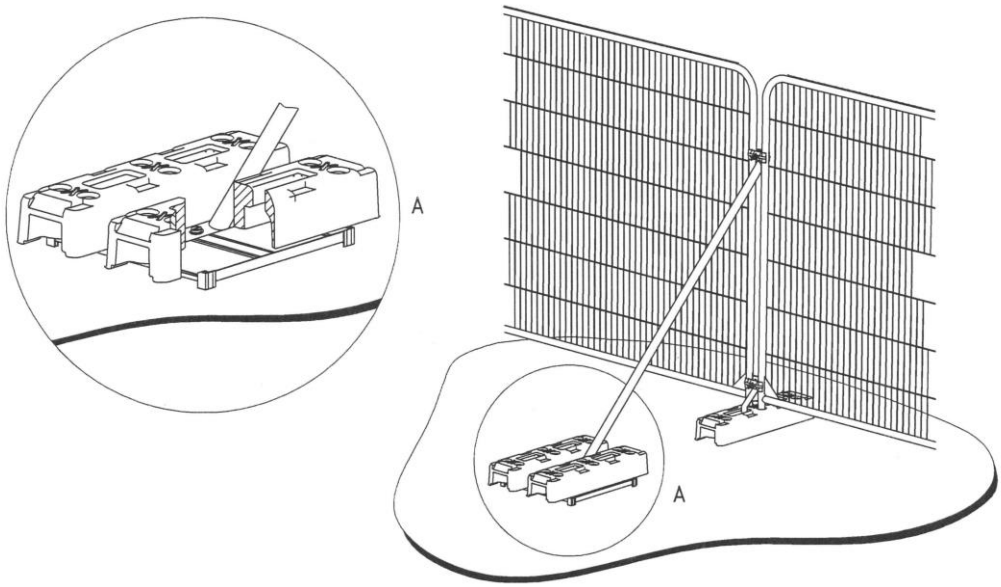
Key

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

Appendix G

Hayden’s 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