

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

Proj. No <b>9741</b>	Benw	ick Primary School, High Street, Benwick, March, . Cambridgeshire, PE15 0XA
C	Client:	R G Carter
Date	of Report:	20/09/2022

# **Contact Details**

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# 1.0 Introduction

### 1.1 **Terms of Reference**

- 1.1.1 Hayden's Arboricultural Consultants Limited has been commissioned by RG Carter to prepare a Tree Survey and Constraints Plan for the existing trees at Benwick Primary School, High Street, Benwick, March, .Cambridgeshire, PE15 0XA.
- 1.1.2 The site survey was carried out on the 26<sup>th</sup> August 2022. The relevant qualitative tree data was recorded in order to assess the condition of the existing trees, their constraints upon the prospective development and the necessary protection 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 Kevin Church dated 09<sup>th</sup> August 2022
  - Definition of site boundary
  - Topographical survey



# 2.0 The Site

### 2.1 Site Overview

2.1.1 The site is Benwick Primary School, High Street, Benwick, March, Cambridgeshire, PE15 0XA.

### 2.2 Soils

- 2.2.1 The soils type commonly associated with this site are loams and sandy soils with naturally high groundwater and a peaty surface. They are of variable fertility and mainly support wet meadow type habitats. This soil type constitutes approximately 1.5% 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 Fenland District Council prior to commencing works to trees. It should be noted however, that Fenland 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.

## 3.0 Tree Survey

- 3.1 As part of this survey a total of fourteen individual trees, two groups of trees and three hedges have been identified. These have been numbered T001 T014, G001 G002 and H001 H003 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. 9741-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 Several items would benefit from tree surgery or additional investigation, be it for health and safety, cultural, aesthetic, or structural reasons as detailed in the attached Schedule of Trees. Including the trees recommended for felling, the items requiring the **most urgent** intervention are as follows:

As soon as possible:

T003	Remove all Ivy and re-inspect.
T012	Clear around base and re-inspect.
T013	Clear around base and re-inspect. Undertake aerial inspection.

Within six months:

T004 Remove all deadwood.

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.9741-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.9741-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 Benwick Primary School, High Street, Benwick, March, Cambridgeshire, PE15 0XA. 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 fourteen individual trees, two groups of trees and three 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*. As recorded at item 3.5 above, three individual trees require urgent intervention and one other specimen needs attention within six months.

## 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:

September 2022..... For and on Behalf of Hayden's Arboricultural Consultants Limited



# 8.0 References

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

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

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

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

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

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

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

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

Schwarze F.W.M.R. Engels J. & Mattheck C. (2000) *Fungal Strategies of Wood Decay in Trees*. Springer

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

Weber K., Mattheck C. (2003). Manual of Wood Decays. The Arboricultural Association



# 9.0 Appendices

Appendix	Α	Species List & Tree Problems
Appendix	В	Schedule of Trees
Appendix	С	Schedule of Works - Irrespective of Development
Appendix	D	Explanatory Notes
Appendix	Е	Tree Preservation Order Enquiry/Response
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## Appendix A - Species List & Tree Problems

### Species List:

Beech	Fagus sylvatica
Cherry Plum	Prunus cerasifera
Crab Apple	Malus sylvestris
Elder	Sambucus nigra
Eucalyptus	Eucalyptus sp
European Lime	Tilia x europaea
Field Maple	Acer campestre
Goat Willow	Salix caprea
Leyland Cypress	X Cuprocyparis leylandii
Lombardy Poplar	Populus nigra 'Italica'
Pear	Pyrus sp
Plum	Prunus domestica
Privet	Ligustrum sp
Silver Birch	Betula pendula
Swedish Whitebeam	Sorbus intermedia
Sycamore	Acer pseudoplatanus
Wild Cherry	Prunus avium



### **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: Hedera helix	(Ivv)
Symptoms/damage	Ivy may grow to varying degrees on all areas of a tree from the
type and cause:	base to the upper crown. It is possible that in doing so it will out-
type and badde.	compete the host tree for available light thereby suppressing
	the host.
Consequence:	This is generally only harmful to the tree on already unhealthy
consequence.	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
Ormatical	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:	



# Appendix B

Schedule of Trees

SCHE	DULE OF	TREES		Benw	vick Primary	y School, High Stree	et, Benwick, March, Cambridgeshire		veyed By: Steve Holyland D naged By: Steve Holyland	ate: 26/08/2022
TreeNo	Species			ight Lowest	Visual	Crown Spread	Problems / Comments	BS Cat	Work Required	Priorit
		Min Dist	Base	Branch	Age	Water Demand		Cui		
On site		RPA (m²)	Aspect	Aspect	SULE	Ground Cover				
G001	Field Maple x1, European Lime	680	18	3.5	High	N7.5, E7.5, S7.5, W7.5	A group of one Field Maple and one Lime. The Lime is the larger of the two trees. Both trees form one homogenous canopy. No	B2	No work required	4
	x1	8.16	1.5		EM	Moderate	significant defects observed at time of survey.			
Yes		209.2			20+ years	Grass				
G002	Leyland Cypress, Elder	250	1	5	High	N3, E3, S3, W3	A line of off site Leylandii with some small Elder below. Leylandii were perhaps originally planted as a hedge but have been allowed to	C2	No work required	4
	0	3	0		SM	High	become overgrown. All dimensions estimated due to being off site.			
No		28.3			10+ years	Light undergrowth, Ivy				
H001	001 Beech, Elder	100	3	.5	Moderate	N1.5, E1.5, S1.5, W1.5	Off site hedge. All dimensions estimated due to being offsite. No significant defects observed at time of survey.	C2	No work required	4
		1.2	0		SM	Moderate				
No		4.5			10+ years	Bare earth				
H002	Elder, Leyland Cypress, Goat	130	4	4	Moderate	N1.5, E1.5, S1.5, W1.5	Boundary hedgerow in an unmanaged form. Sporadic in places also.	C2	No work required	4
	Willow	1.56	0		EM	High				
No		7.6			10+ years	Light undergrowth				
H003	Wild Cherry, Privet, Cherry	140	1	0	Moderate	N3, E3, S3, W3	Off site hedge. All dimensions estimated due to being off site. Very unmanaged form. No significant defects observed at time of survey.	C2	No work required	4
	Plum, Elder	1.68	0		SM	Moderate				
No		8.9			10+ years	Dense undergrowth				
T001	Swedish Whitebeam	280	5	.5	Moderate	N2.5, E2.5, S2.5, W2.5	Tree in hard surface play area. Tree completely surrounded by hard surface. No significant defects observed at time of survey.	C1	No work required	4
		3.36	2		EM	Moderate				
Yes		35.5			10+ years	Tarmac				
T002	Crab Apple - Native	250	4	.5	Moderate	N4, E2.5, S3.5, W3.5	Typical squat specimen next to boundary fence. Some Ivy encroachment up main stem but overall no significant defects	C1	No work required	4
		3	1		М	Moderate	observed at time of survey.			
Yes		28.3			10+ years	Grass				

TreeNo	Species	DBH	Не	ight	Visual	Crown Spread	Problems / Comments	BS	Work Required	Priority
		Min Dist	Crown Base	Lowest Branch	Age	Water Demand		Cat		
On site		RPA (m²)				Ground Cover				
T003	Cider Gum	450	1	18	High	N3.5, E6, S3, W3.5	Off site tree. All dimensions estimated due to being offsite. Main stem is also heavily clad in Ivy preventing inspection. Crown appears	C1	Remove all Ivy and re-inspect.	1
		5.4	1.5		SM	High	in good condition.			
Yes		91.6			10+ years	Light undergrowth				
T004	Pear	300		6	Moderate	N3, E3.5, S4.5, W4.5	Foliage is discoloured which may be due to recent drought conditions. Major deadwood present in the crown.	C1	Remove all deadwood.	2
		3.6	1		М	Moderate				
Yes		40.7			10+ years	Grass				
T005	Crab Apple - Native	440	1	11	High	N5.5, E5.5, S5.5, W5	Foliage is discoloured which may be due to recent drought conditions. Otherwise no significant defects observed at time of survey.	B2	No work required	4
		5.28	2		М	Moderate				
Yes		87.6			20+ years	Grass				
T006	Silver Birch		High	N5, E4.5, S5, W5	Tree located in corner of sports field. No significant defects observed at time of survey.	B2	No work required	4		
		4.44	1.5		EM	Low	_			
Yes		61.9			20+ years	Grass				
T007	Plum	100		2	Low	N1, E1, S1, W1	Small Plum tree in corner of sports pitch.	C1	No work required	4
		1.2	0		SM	Moderate				
Yes		4.5			10+ years	Grass				
T008	Silver Birch	400	1	15	High	N5, E5.5, S4.5, W6	Tree located in corner of sports field. No significant defects observed at time of survey.	B2	No work required	4
		4.8	1		EM	Low	_			
Yes		72.4			20+ years	Grass				
T009	Swedish Whitebeam	280	9	0.5	Moderate	N3, E4.5, S4, W2	Tree has an asymmetric crown but overall no significant defects observed at time of survey.	C1	No work required	4
		3.36	1		EM	Moderate	_			
Yes		35.5			10+ years	Grass				
T010	Sycamore	330		15	High	N4.5, E4.5, S5, W5	Off site tree. All dimensions estimated due to being off site. Main stem is also heavily clad in Ivy and undergrowth preventing	C1	No work required	4
		3.96	2		SM	Moderate	inspection. Crown appears in good condition.			
No		49.3			10+ years	Dense undergrowth				

TreeNo	Species	DBH	He	eight	Visual	Crown Spread	Problems / Comments	BS	Work Required	Priority
		Min Dist	Crown Base	Lowest Branch	Age	Water Demand		Cat		
On site		RPA (m²)	Aspect	Aspect	SULE	Ground Cover				
T011	Crab Apple - Native	130		3	Low	N1.5, E1, S1.5, W1	Small tree close to boundary fence. Suppressed by adjacent larger trees. Overall no significant defects observed at time of survey.	C1	No work required	4
		1.56	1		SM	Moderate				
Yes		7.6			10+ years	lvy				
T012	Sycamore	700		19	High	N9.5, E8.5, S4.5, W6.5	Twin stemmed off site tree. All dimensions estimated due to being offsite. Limited inspection of the base and main stem due to undergrowth. Crown appears in good condition but is asymmetric.	B2	Clear around base and re-inspect.	1
		8.4	1.5		М	Moderate				
No		221.7			20+ years	Dense undergrowth				
T013	Lombardy Poplar	600		18	High	N1.5, E2, S2, W2	Tree looks to be on site but the base cannot be accessed due to dense undergrowth. The tree looks to have been topped in the past	U	Clear around base and re-inspect. Undertake aerial inspection.	1
		7.2	5		М	High	and just below where the cut has been made are two fungal fruiting			
Yes		162.9			<10 years	Dense undergrowth	bodies. Fungus is to high up to properly identify. Extent of decay can also not be established.			
T014	Silver Birch	380		15	High	N3.5, E3.5, S3.5, W3.5	Tree located in nursery garden. No significant defects observed at ime of survey.	B2	B2 No work required	
		4.56	4		EM	Low				
Yes		65.3			20+ years	Grass				

# Appendix C

Schedule of Works

### SCHEDULE OF WORK

Benwick Primary School, High Street, Benwick, March, Cambridgeshire

Surveyed By: Steve Holyland Surveyed: 26/08/2022 Managed By: Steve Holyland

Tree No.	Species	Work required	Priority
Т003	Cider Gum	Remove all Ivy and re-inspect.	1
T012	Sycamore	Clear around base and re-inspect.	1
T013	Lombardy Poplar	Clear around base and re-inspect. Undertake aerial inspection.	1
T004	Pear	Remove all deadwood.	2

# Appendix D

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 5837Using this assessment (BS 5837:2012, Table 1), trees can be dividedMaininto one of the following simplified categories, and are differentiated by<br/>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** 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

**Category** 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** Diameter of main stem in millimetres at 1.5 metres from ground level.

(mm) 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 DemandThis gives the water demand of the species of tree when mature, as given in<br/>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/May include general comments about growth characteristic, how it isCommentsaffected by other trees and any previous surgery work; also, specific<br/>problems such as deadwood, pests, diseases, broken limbs, etc.

# Work Required<br/>(TS)Identifies the necessary tree work to mitigate anticipated problems and deal<br/>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;
	<b>3</b> Works required within 1 year;
	<b>4</b> Re-inspect in 12 months,
	<b>0</b> Remedial works as part of implementation of planning consent.



- 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.*
- ConstructionSite-based operations with the potential to affect existing<br/>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.

- StemPrincipal above ground structural component(s) of a tree that<br/>supports its branches.
- StructureManufactured object, such as a building, carriageway, path,<br/>wall, service run, and built or excavated earthwork.

Tree Protection PlanScale drawing, informed by descriptive text where necessary,<br/>based upon the finalized proposals, showing trees for<br/>retention and illustrating the tree and landscape protection<br/>measures.

Veteran TreeTree that, by recognized criteria, shows features of biological,<br/>cultural or aesthetic value that are characteristic of, but not<br/>exclusive to, individuals surviving beyond the typical age<br/>range for the species concerned.NOTE - these characteristics might typically include a large<br/>girth, signs of crown retrenchment and hollowing of the stem.



# Appendix E

Tree Preservation Order Enquiry/Response

### **Rachel Edwards**

From:	planning <planning@fenland.gov.uk></planning@fenland.gov.uk>	
Sent:	13 September 2022 10:37	
То:	Rachel Edwards	
Subject:	From planning RE: TPO Enquiry - Benwick Primary School, High Street, Benwick, March, .Cambridgeshire, PE15 0XA	

Good morning,

Thank you for your enquiry.

We have checked our records for the address indicated in your email and it would appear there are no Tree Preservation Orders that affect the property in question, and the property is not within a Conservation Area.

However, there may be planning restrictions that relate to the hedgerow and trees, and terminals and maps are available within Fenland Hall reception during our normal office hours for the purposes of performing planning history searches.

Our 'public access' system on our website should allow you to search for applications submitted: <u>www.publicaccess.fenland.gov.uk/publicaccess.</u> Please note that plans etc are only available on more recent applications submitted within the last few years.

Alternatively, please contact our land charges team at <u>landcharges@fenland.gov.uk</u> who will be able to search for applications for you at a charge.

Wildlife: Tree surgery can be disturbing to wildlife. Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to disturb or destroy a bird nest whilst it is being built or in use, or disturb a bat roost. If any tree for which tree work is proposed is suspected to be a bat roost, then you must first contact English Nature. Under the Protection of Badgers Act 1992 it is an offence to damage or disturb a badger sett.

Felling trees on Development sites:

Forestry: commission advise: felling of trees which are not subject to a TPO may still require a Felling License from the Forestry Commission, failure to fell under a proper license is an offence subject to a penalty see .GOV <<u>http://scanmail.trustwave.com/?c=6600&d=qN672-Yu6Mnd5hZlsc2uwxzD1sX6Tu8yQa4Y5dw-8g&s=1100&u=http%3a%2f%2fwww%2eforestry%2egov%2euk%2fforestry%2finfd-9hbjk4></u>

Kind regards

**Technical Support Team** 01354 654321 www.fenland.gov.uk



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From: Rachel Edwards <RachelEdwards@TreeSurveys.co.uk> Sent: 13 September 2022 10:28 To: planning <planning@fenland.gov.uk> Subject: TPO Enquiry - Benwick Primary School, High Street, Benwick, March, .Cambridgeshire, PE15 0XA

Hello,

I would be most grateful if you could advise if the above-mentioned address is within a conservation area or is covered by any TPO's?

I have included an image below to help identify the area in question.



Kind Regards

**Rachel Edwards** Office Manager



Tel: 01284 765391

info@treesurveys.co.uk www.treesurveys.co.uk

Head Office: 5 Moseley's Farm Business Centre, Fornham All Saints, Bury St. Edmunds, Suffolk, IP28 6JY Southern Office: Unit 6 Enterprise House, Cherry Orchard Lane, Salisbury, Wiltshire, SP2 7LD

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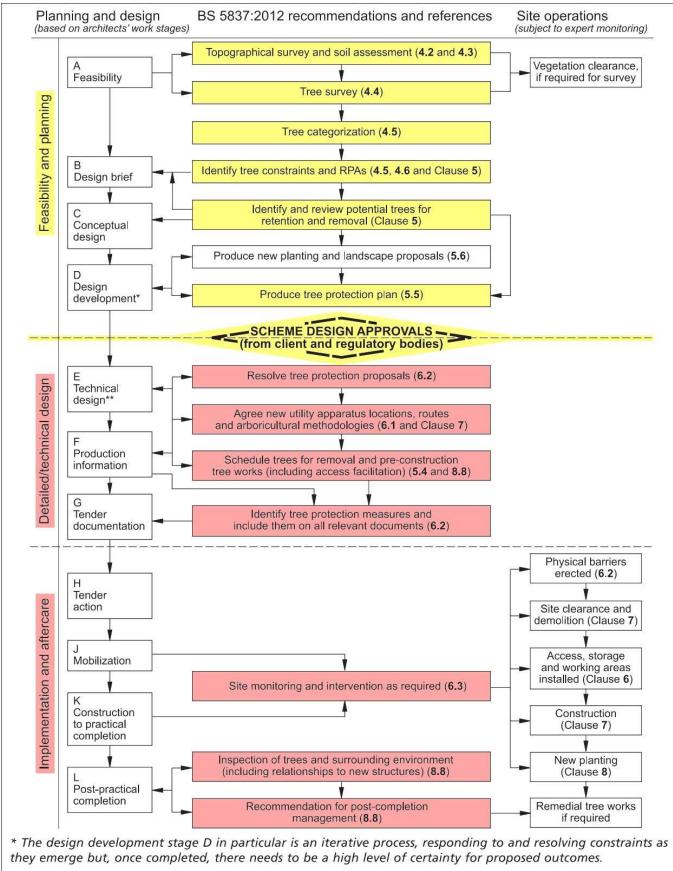
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# Appendix F

Advisory Information & Sample Specifications

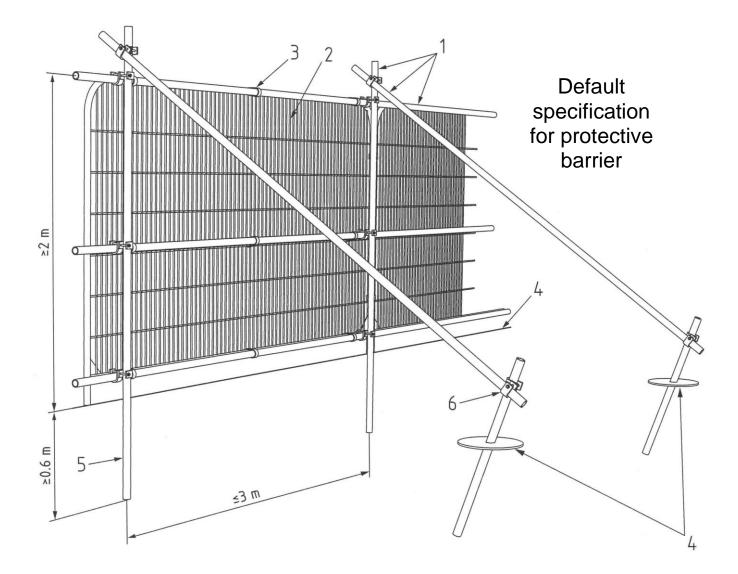


#### 1. BS 5837:2012 Figure 1 - Flow Chart – Design and Construction & Tree Care

\*\* See Commentary on Clause 6.

	European Protected Species and woodland operations. (V4) Complete all sections of the Checklist						
		✓					
	Checklist		Details				
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	YES NO	Name of Wood: Grid Reference:				
	Great crested newts Sand lizards Smooth snakes Does your wood contain any of the following habitats? Tick any that apply.	100					
2	<ul> <li>Old trees with holes and crevices which might be used bats</li> <li>Species rich scrub/coppice, early growth stage plantations and forest interfaces</li> <li>Rivers on which otters might be found</li> <li>Ponds which might be occupied by great crested newts</li> <li>Open areas on heathy soils</li> </ul>	NO	Area: (ha)          Date of Assessment:				
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	Name of Assessor:				
	<ul> <li>National Biodiversity Network (www.nbn.org.uk)</li> <li>Local Biological Records Centre</li> <li>Local Wildlife Trust</li> <li>Other</li> <li>Specify Other:</li> </ul>						
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:	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.		Notes				
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	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)				
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)	YES NO	You may commit an offence if you do not tell your operators about the protected species in your wood.				
7	Shown to operators and/or their supervisor Marked with paint or hazard tape Shown on the site plan Other means: Have arrangements for supervision been made to ensure Good Practice guidance is complied with during the operations? Details:	YES NO	You may commit an offence if you do not take steps to ensure that your operators comply with the Good Practice quidance.				

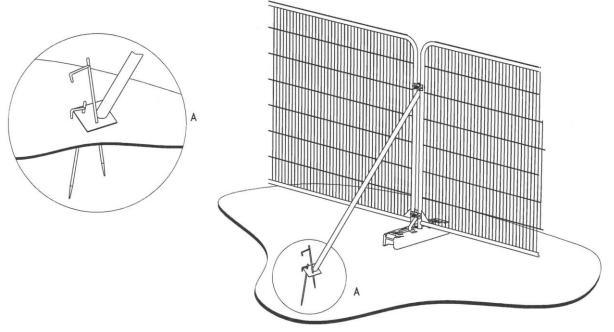
### 3. BS 5837:2012 Figure 2: Default specification for protective barrier



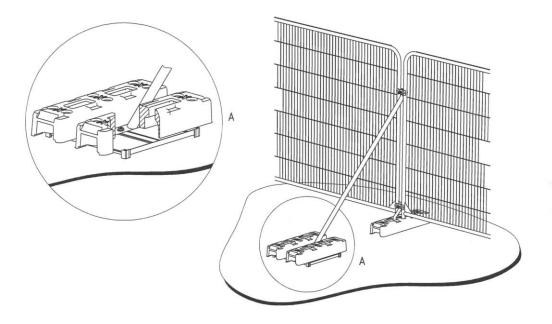
### Key

- 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 •

