

Arboricultural Report

Demolition of current house and erection of three new dwellings, access and parking Caradoc
Kinnerley
Shropshire

Commissioned by: Amy Henson Berrys Surveyed and reported on by: David Bailey BSc(hons),M.Arbor.A,cert.Arb(RFS) Report Date: 27 November 2023

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Contents

							Page
1.0	Summary .						2
2.0	Instructions .						3
3.0	Preliminary matters						3
4.0	Method of survey						4
5.0	Site details .						4
6.0	Summary of trees						5
7.0	Arboricultural impac	ct asse	ssmen	t.			6
8.0	Tree protection						7
9.0	Conclusion .						8

Appendix A: Tree constraint plan PC23/656/TCP
Appendix B: Tree protection plan PC23/656/TPP
Appendix C: Tree categorisation PC23/656/TPP
Table 1 of BS5837:2012

Appendix D: Protective Fencing
Appendix E: Tree Schedule with key

1.0 Summary

1.1 The proposal is to demolish the current house and build three new dwellings with parking and garden space.

Figures 2&3 of BS5837

- 1.2 There are three category B and twelve category C trees on or next to the site.
 Additionally, there are two category C groups.
- 1.3 Six trees and one group, all category C, will need to be removed to allow the development to take place. The majority of trees removed are overgrown garden conifers which are of low value and are out of character with the context of the site.
- 1.4 There will be only a small harm to the character and appearance of the area by the removal of these trees. New planting, once established, will replace and improve upon the amenity provided by trees to the area.
- 1.5 Correctly placed protective fencing will ensure retained trees can be suitably protected during the build.
- 1.6 The proposal is arboriculturally sound and complies with BS5837.

2.0 Instructions

2.1 I am instructed by Amy Henson, senior planning consultant at Berrys to carry out a survey at Caradoc and record all significant trees that may be affected by the proposed development.

- 2.2 The proposal is to demolish the existing house and erect three new dwellings, parking and garden space.
- 2.3 There are a number of trees in the site. Consideration is to be made to justify any that are removed and to ensure retained trees are not significantly damaged by the proposal.
- 2.4 I am to produce a tree report to support the planning application. The report is to be compliant with BS5837:2012¹ hereafter referred to as BS5837.

3.0 Preliminary matters

- 3.1 The survey and report cover only arboricultural matters relating to trees that may be affected by the development. It deals with identifying the benefits and constraints trees will impose upon the development site, which trees will need to be removed and how the remaining specimens can be protected and how retained trees will affect the site.
- 3.2 Statutory protection of trees, either tree preservation orders (TPOs), conservation area status or historical planning conditions has not been thoroughly investigated. The definitive existence of statutory protection of trees can be gained from the Tree Team at the Council².
- 3.3 Plans supplied to myself:
 - i) Site plans and proposal supplied by Berrys.

Plans I have produced to accompany this report:

i) Tree Constraints Plan PC23/656/TCPii) Tree Protection Plan PC23/656/TPP

3.4 Where buildings are constructed close to trees, reference should be made to the NHBC Standards 2023³. This document, updated yearly, gives appropriate

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¹ BS5837:2012 Trees in relation to design, demolition and construction: Recommendations – British Standards Institute

² Tree Team, Shropshire Council, 01743 253333 trees@shropshire.gov.uk

³ National House Builders Council Standards 2023 Part 4, Chapter 2 Building near trees https://nhbc-standards.co.uk/

foundation depths for buildings close to trees. It is recommended that the soil's modified plasticity index is investigated to consider the likelihood of soil movement with moisture change. This will allow the appropriate foundation depth to be calculated.

3.5 The data, views and opinions of this report relate to the survey undertaken on the date shown and does not take into account the effects of extreme weather conditions, vandalism or accidental damage. Neither can the effects of poorly executed tree surgery work, not complying to current good practice, be predicted. Old Oak Tree Care cannot accept liability in connection with these factors. This report requires renewal in two years from the date of survey, or as soon as site conditions, tree health or tree structural conditions significantly alter.

4.0 Method of survey

- 4.1 The survey was undertaken on 20 November 2023.
- 4.2 Trees were surveyed to measure height, trunk diameter, crown spread and height, health, structural condition, estimated remaining life expectancy and overall quality. This and other information was gathered to comply with section 4.4.2 of BS5837. Trees were categorised utilising the same standard, see Appendix C.
- 4.3 Stem diameters were measured using a surveyor's tape. Crown spreads and heights were measured using a laser rangefinder. Heights were estimated using the height function of the laser rangefinder.
- 4.4 All measurements and observations were made from the ground and no soil or tissue samples were taken. Although significant visually apparent hazards within trees will be identified and commented upon, the survey is not a dedicated health and safety survey of the identified trees.
- 4.5 Where trees could not be reached when off site or inaccessible, dimensions were estimated.

5.0 Site details

- 5.1 The site is a large detached house and large garden on the outskirts of the village of Kinnerley.
- 5.2 To the north and east are residential roads with dwellings and gardens beyond them. In a southerly direction are residential properties and gardens. To the west is a small road with agricultural fields beyond it.

- 5.3 The level of the land appears to be flat.
- 5.4 There are several trees in the site. Many are overgrown hedging or garden evergreens with just a few larger trees of higher quality.

5.5 Viewing the Cranfield soil map⁴, it appears that the soil is slowly permeable seasonally wet acid, loamy and clayey. Soil of this kind provides a good medium for tree growth. The modified plasticity index of the soil is not known.

6.0 Summary of trees

6.1 All data gathered on trees is supplied in appendix E. Table 1 and 2 below give a summary of the information.

Category	Description of category	Number
Α	High quality with an estimated remaining life span of at least 40 years. Particularly good examples of their species, especially if rare or unusual. They will be visually important and may have significant conservation or historical values.	0
В	Moderate quality and expected to remain between 20 to 40 years. Might have been included as a category A but downgraded by impaired conditions. Possibly lacking special qualities to be regarded as Category A. Group which collectively increase its value from C to B or a particularly effective screen.	3
С	Low quality with an expected lifespan of 10 to 20 years or below 150mm in diameter. Unremarkable trees, either young, impaired or poor species. Unlikely to increase in quality as time goes by. No conservation or cultural value.	12
U	Those in such a condition that they cannot be realistically retained as living trees for longer than 10 years. Serious structural or physiological problems. Also dead trees.	0
Group	Trees of similar species, size or character which are grouped together. The number of the group is given together with the categorisation.	1-C
Hedge	Groups of trees planted in lines as a hedge. Trees originally planted as a hedge but have not been managed in some time, reverting back to a line of trees. The number of the hedge is given together with its categorisation.	0

Table 1: Number of categorised trees, groups and hedges. A brief description of categorisation together with colour coding. Appendix E gives full detail.

⁴ Cranfield Soil and Agrifood Institute Soilscapes. <u>www.landis.org.uk/soilscapes/</u>

6.2 A brief description of pertinent data relating to all trees is given in table 2. A key to the table is found below it.

		Height	Stem		
No.	Species		Dia.	Cat.	Comment
Ok1	Oak	17	500	В	0
Sp2	Spruce	21	475	В	0
ST3	Service Tree	9	350	С	0
Ho4	Holly	8	250	С	0
Ch5	Cherry	12	300	С	0
SB6	Silver Birch	16	300	С	0
LI7	Leylandii	14	425	С	0
LI8	Leylandii	14	400	С	0
Sp9	Spruce	21	475	В	0
Sy10	Sycamore	14	250	С	0
G11	Group	13	350	С	line of 4 Leylandii similar to LI12
Ll12	Leylandii	12	350	С	0
Cy13	Cypress	16	350	С	0
Cy14	Cypress	8	125	С	0
Cy15	Cypress	10	400	С	0
Ap16	Apple	11	450	С	0

Table 2: Summary of trees (Key below)

No: Tree identifier using letters to indicate species and a sequential number.

G indicates a group, H indicates a hedge.

Species: Tree species using the common name.

Height: Height in metres.

Stem Dia: Stem diameter measured at 1.5 metres from the ground in millimetres.

Cat: Category according to BS5837. See Appendix C for details on categorisation.

Note: Numbers for sub-categorisation are not used.

Comments: Comments, if necessary. 0 if none.

7.0 Arboricultural impact assessment

- 7.1 Six trees and one group will need to be removed to allow the development to take place. Some of these trees are large and have a visual presence from public perspectives. However these trees are, in the main, low quality overgrown garden trees of little value and somewhat out of place within their semi-rural setting.
- 7.2 Ch5 is a category C wide spreading cherry in the centre of the garden. It will need to be removed to allow the de3velopment to take place. This tree has little effect on the amenity provided by trees to the area.
- 7.3 SB6 is a tall category C silver birch within the centre of the garden. While it needs to be removed to allow the development to take place it is at the upper end of the

C category and its removal will have an impact on the amenity provided by trees to the area. Replacement planting will need to mitigate the loss of this tree.

- 7.4 LI7, LI8, LI12 and the 4 leylandii in Groups G11, all category C, are clearly visible from public perspectives but do not add a great deal to the amenity provided by trees to the area. Being large overgrown leylandiis they are incongruous to the generally semi-rural character of the village. It is likely that such trees would be removed whether development were to take place or not. Removing and replacing these trees with those much more suited to their environment would, once the trees are established, considerably increase the amenity provided by trees to the area.
- 7.5 In a similar manner to Ch5, the cypress Cy15 is a moderately sized category C tree within the garden of the house. It has little amenity value and will need to be removed to allow the development to take place.
- 7.6 All of the category B trees are to remain along with a number of category C trees retaining the best trees within the site.
- 7.7 A carefully specified, designed and executed replacement planting programme will ensure the small amount of amenity provided by trees that is lost will be replaced and improved upon once the new plantings have established. Appendix B shows where 9 replacement large or medium sized trees could be planted.
- 7.8 No other trees will be affected by the development.

8.0 Tree protection

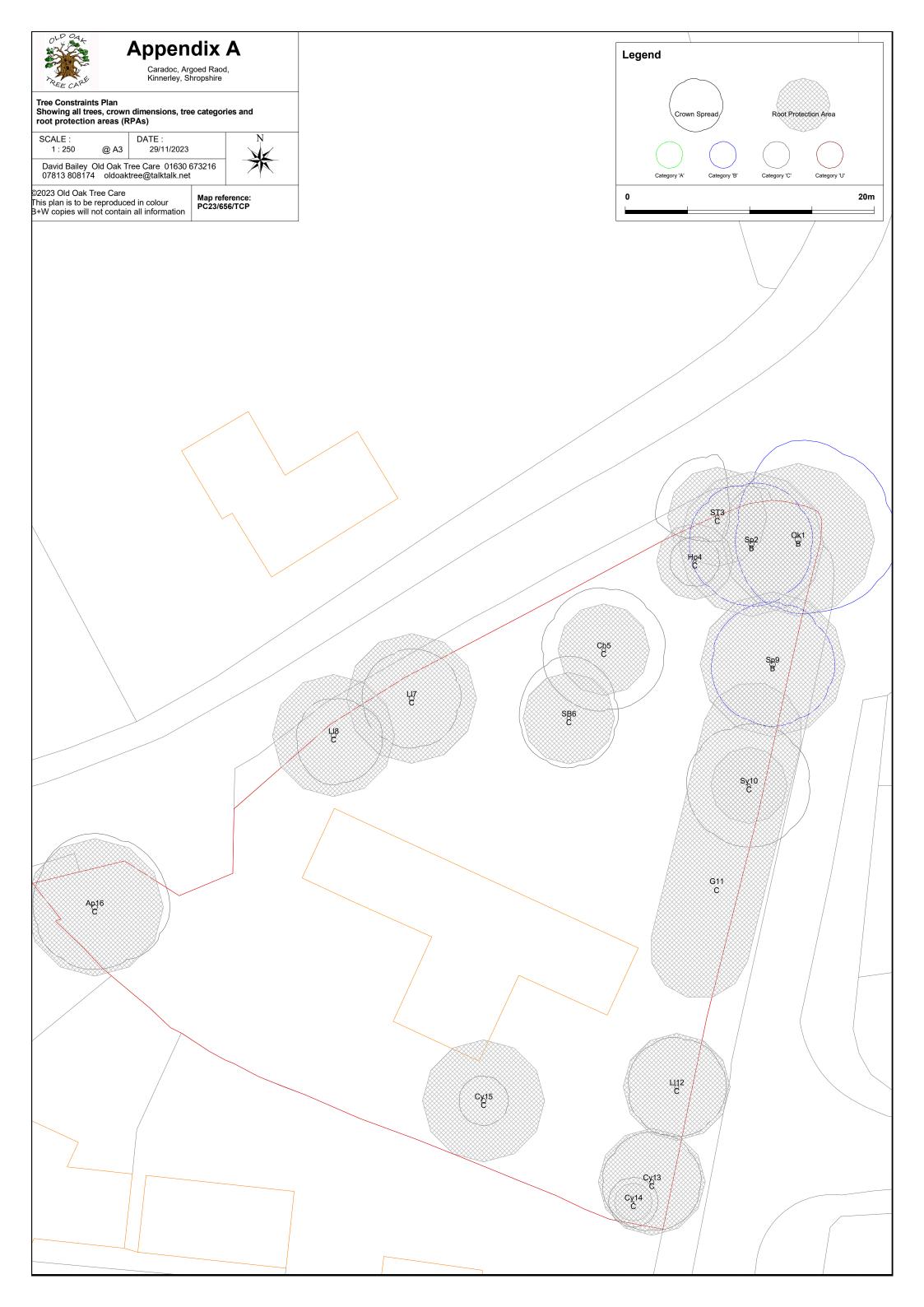
- 8.1 Appendix A and B show the categor6y of trees, their crown spread and their root protection area (RPA), an area of rooting around the tree which if retained will provide suitable medium for the tree to continue to grow without significant harm.
- 8.2 RPAs do not show the entire rooting area of the tree. They may show just ½ or ½ of it depending upon site conditions. The RPA is usually drawn as a circle 12 times the diameter of the tree at 1.5m from the ground or, for multiple stemmed trees, its mathematical equivalent given in BS5837. However, site conditions may require the RPA to be drawn differently depending upon the most likely area where good rooting is found for the tree. In this case, No RPA has been altered.
- 8.3 Protected RPAs are to be kept clear of refuse, materials, fuels and chemicals. These items are to be prevented from leaking into RPAs, either above or below ground.

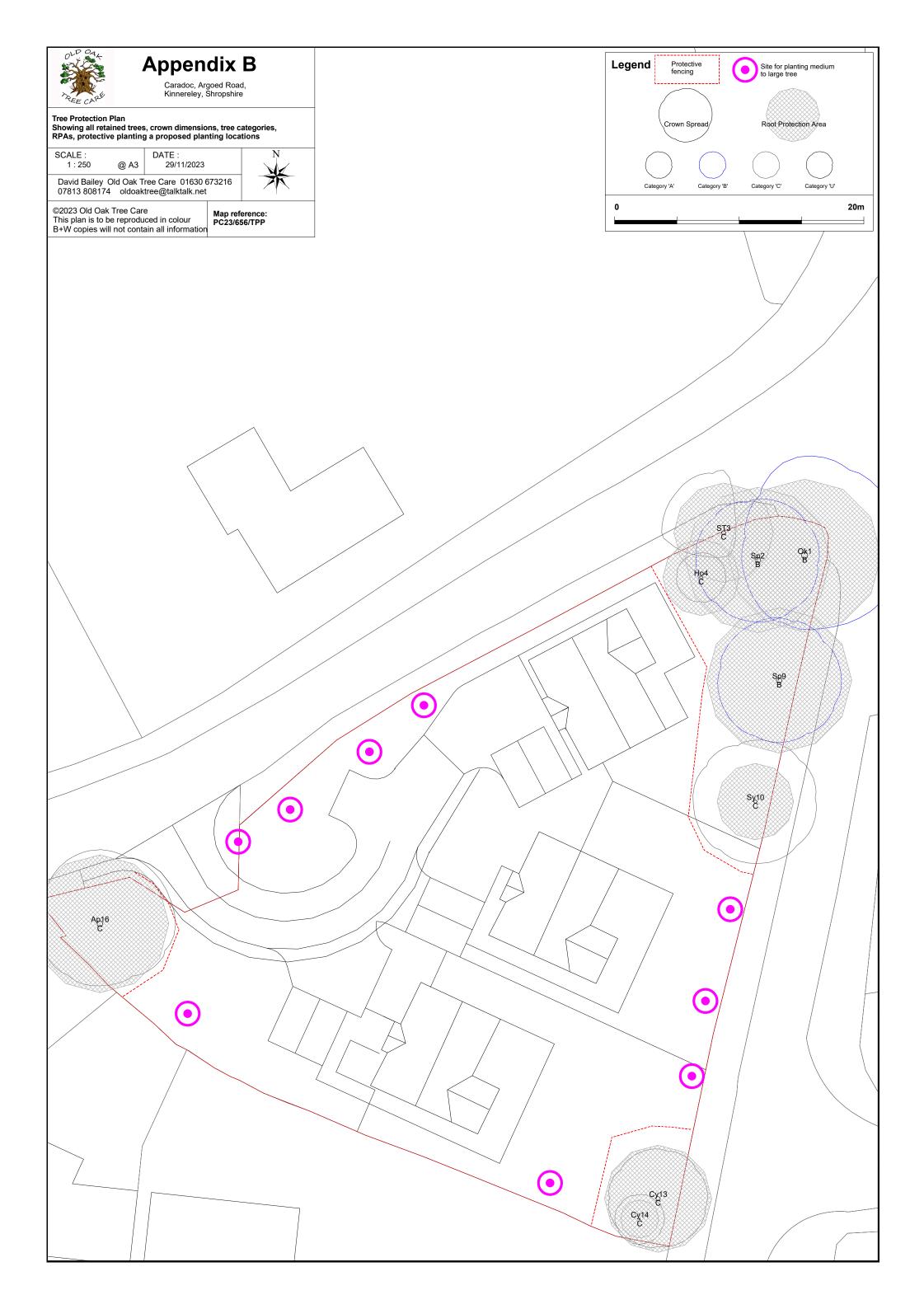
8.4 Protective fencing should be in place before any plant, materials, deliveries, site offices or skips arrive. No demolition or construction work is to take place until protective fencing is installed and approved for use.

- 8.5 Protective fencing similar to that presented in BS5837, shown in Appendix D, is to be used to protect RPAs from vehicular and foot access. The fencing is to be securely joined and attached to immovable objects to prevent it from being moved. Fencing should be firmly attached into the ground and will require tools to move it.
- 8.6 There is plenty of space for services to enter the site below the drive. Should a service run need to be positioned within an RPA it will need to be dug by hand under the guidance of a site-specific arboricultural method statement.

9.0 Conclusion

- 9.1 The proposal is to demolish the current house and build three new dwellings with parking and garden space.
- 9.2 There are three category B and twelve category C trees on or next to the site. Additionally, there are two category C groups.
- 9.3 Six trees and one group, all category C, will need to be removed to allow the development to take place. The majority of trees removed are overgrown garden conifers which are of low value and are out of character with the context of the site.
- 9.4 There will be only a small harm to the character and appearance of the area by the removal of these trees. New planting, once established, will replace and improve upon the amenity provided by trees to the area.
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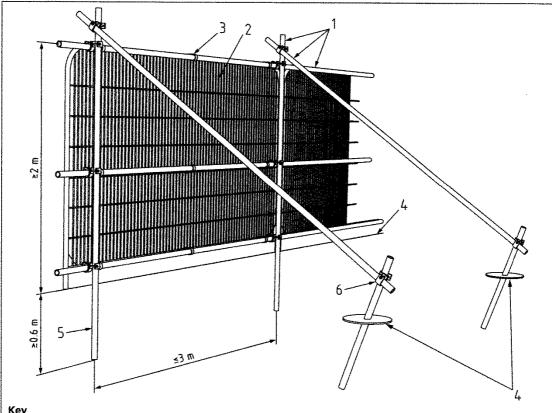
Cascade chart for tree quality assessment

BS 5837:2012

Trees unsuitable for retention (see Note) Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current the context of the current of years Trees to be considered for retention Category A Trees that are dead or are showing adjacent of years Trees to be considered for retention Category A Trees that are dead or are showing adjacent of years Trees that are dead or are showing a diagrem of a least of their suppressing adjacent of years Trees that are dead or are showing adjacent or longer than a least or longer than are particularly good examples of their species, especially if the expectancy of at least or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue) Trees that might are particularly good examples of their species, especially if a rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue) Trees that are dead or are showing adjacent or longer than are examples of their species, especially if a rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue) Trees of moderate quality with an estimated remaining life expectancy of at least remediable defects, included in remediable defects, including unsympathetic past management and	Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality E. Category U trees can have existing or potential conservation value which it might be desirable to preserve; annly arboricultural qualities E. Category U trees can have existing or potential conservation and/or trees groups or woodland or unusual; or those that are landscape features arboricultural and/or of significant conservation, historical, commemorative or compensative or compensa	is expected due to collapse, (e.g. where, for whatever e overall decline trees nearby, or very low the be desirable to preserve; 3 Mainly cultural values, including conservation Trees, groups or woodlands of significant conservation, historical, commemorative or	See Table 2
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or remaining life noy of at least # B moderate quality estimated remaining ctancy of at least	<u>.</u>	Alsonial, Commented alive of	
y B moderate quality estimated remaining ctancy of at least	od/or	other value (e.g. veteran trees or wood-pasture)	
y B moderate quality estimated remaining ctancy of at least	ne)		
moderate quality estimated remaining ctancy of at least	in Trees present in numbers, usually growing	Trees with material	See Table 2
		conservation or other cultural value	
storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the	ind n for ne		
special quality necessary to merit the category A designation	erit the		
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with	nited Trees present in groups or woodlands, but ion that without this conferring on them categories significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	See Table 2

BS 5837:2012 **BRITISH STANDARD**

Default specification for protective barrier

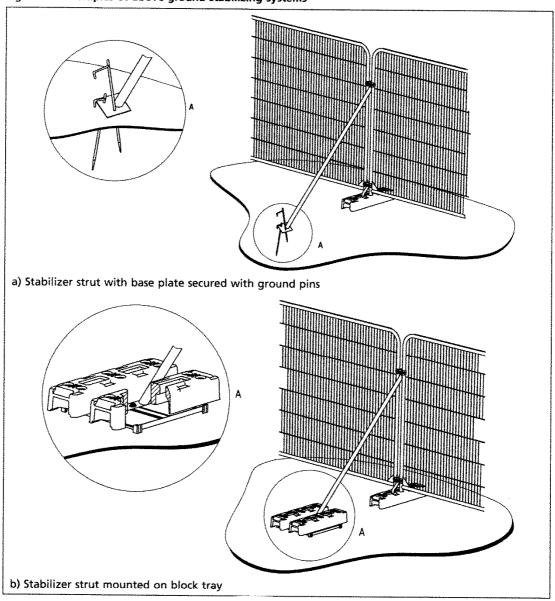


Key

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

BRITISH STANDARD BS 5837:2012

Figure 3 Examples of above-ground stabilizing systems



Appendix E Tree Schedule - Key

Where measurements are estimated due to lack of access or vegetation, a * denotes this.

Tree Number - Identification for specific tree. Using a couple of letters to help with

species identification together with a number. Groups or hedges

will be identified as Gr.

Species- Tree species, using common name.

Height- Taken using angular triangulation function of a laser rangefinder.

Diameter- Taken by measuring circumference with a tape measure and

applying Pi equation or by measuring circumference by eye if entire

circumference is not accessible (in this case denoted by *).

Crown spread- Radius of crown at four cardinal points, north, east, south and west

measured by laser rangefinder. (Estimates denoted with a *).

Crown height- Height of lowest branch at each cardinal point. Measured by laser

rangefinder. (Estimates denoted with a *).

Age bracket- Estimated life stage of tree ranging from young, mid-aged, early-

mature, mature and over-mature.

Physiological condition- Assessment of health and vitality of the tree. Good, fair, poor or

dead. Fair or poor will have more details attached.

Structural condition- Assessment of physical structure of tree. Good, fair, poor or dead.

Fair or poor will have more details attached.

Years remaining- Estimate of likely useful life of tree taking into account age,

species, character, situation and likely management requirements.

Quality assessment- Subjective assessment. Either A-very good, B-good, C-reasonable

or U-unsuitable for retention. See appendix C for more details.

RPA radius- Positioning of root protection area (RPA) measured from centre of

the tree to the radius. This is for circular RPAs. Where RPAs have been adjusted for site conditions and are no longer circular this

value will not be correct.

RPA area- Area of RPA irrespective of its shape.

Notes: Any notable comments on group make up, physiological, structural

condition or notable features.

App	pendix E		Tree	e Sc	hed	ule															
Tree number	Species	Height (m)	Diameter (mm)	N Crown	spread (m)	ш ,	s 3	N Crown Height (m)		S	W	Age bracket	Physiological Condition	Structural	Years	remaining	Quality	RPA radius(m)	RPA Area	(m2)	Notes
Ok1	Oak	17	50	0	8	8	6	5 3	4	4	2	mature	good	good	>40	Е	3	6.0	1	L13 (0
Sp2	Spruce	21	47	5	5	5	5	5 4	5	3	2	mature	good	good	20 t	o 40 E	3	5.7	1	L02 (0
ST3	Service Tree	9	35	0	5	1	2	5 4	4	6	3	early-mature	good	good	10 t	o 20 C)	4.2		55 (0
Ho4	Holly	8	25	0	2	2	2	2 1	1	1	1	early-mature	good	good	10 t	o 20 C)	3		28 (0
Ch5	Cherry	12	30	0	5	5	5	5 2	2	2	2	mature	good	good	10 t	o 20 C)	3.6		41 (0
SB6	Silver Birch	16	30	0	4	5	4	4 2	2	2	2	early-mature	good	good	10 t	o 20 C)	3.6		41 (0
LI7	Leylandii	14	42	5	4	4	4	4 0	0	0	0	early-mature	good	good	10 t	o 20 C)	5.1		82 (0
LI8	Leylandii	14	40	0	3	4	4	3 0	0	0	0	early-mature	good					4.8		72 (
Sp9	Spruce	21	47	5	5	5	5	5 2	2	2	2	mature	good					5.7		L02 (
Sy10	Sycamore	14	25	_	5	5	5	5 4	4	4	4	early-mature	good	good	20 t	o 40 C	2	3		28 (
G11	Group	13	35	0	4	4	4	4 0	0	0	0	early-mature	good					4.2		55 l	line of 4 Leylandii
Ll12	Leylandii	12	35	_	4	4	4	4 0	0	0	0	early-mature	good					4.2		55 (
Cy13	Cypress	16	35	0	4	4	4	4 4	4	4	4	early-mature	good					4.2		55 (0
Cy14	Cypress	8	12	5	2	2	2	2 2	2	2	2	mid-aged	good	good	10 t	o 20 C	2	1.5		7 (
Cy15	Cypress	10	40	0	2	2	2	2 0	0	0	0	mature	good					4.8		72 (
Ap16	Apple	11	45	0	6	6	5	5 5	5	6	6	mature	good	good	10 t	o 20 ()	5.4		92 (0