

Report No: 1525

**Tree survey and Categorisation to BS5837:2012
Arboricultural impact Assessment and Tree
Protection Plan.**



Erection of dwellings with new associated roadside access./Plot 2 Dilwyn.

Client: Garnstone Farms

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22 May 2023

For Proposed New dwellings and new roadside access: -

Plot 2 Dillwyn, Herefordshire.

Introduction

Heritage Environmental Contractors Ltd has been commissioned by Mr M Thompkins of TT planning on behalf of applicant Garnstone Farms to carry out a Tree Survey and Categorisation with associated Arboricultural Impact Assessment and Tree Protection Plan at the site known as plot 2 Dillwyn, Herefordshire.

The identified trees were surveyed with the use of a drawing provided AD Horner Topographical survey 6715-28 ap22-01 date: April 2022 and OHA drawing no. E001 June 22

The purpose of this report is to identify the trees on the subject site, the quality and value of the trees, the possible effect of the development and the significance of such impact in landscape terms. The survey has been carried out in accordance with BS5837:2012 *Trees in relation to construction recommendations*, consult BS for further information. The trees were surveyed at ground level and no climbing inspections were undertaken. No internal decay detection readings have been made. The report is intended for planning purposes only and not a H&S assessment, this remains the responsibility of the current landowner. No liability can be accepted for features obscured or where access was unavailable.

Site Description

The site is a small pony paddock within the village of Dilwyn Herefordshire and covers an area of approximately 0.4ha. It is generally flat with a fall towards the roadside margin with a coverage of improved grassland which is typical for a pony paddock and long term animal enrichment.

The roadside hedge has been reduced this winter to approx 1.5m and is continuous with a large field opening in northern section of the field, the rear hedge is poor and truncated and only covers a small section.

External of the application is the general village/ settlement and mixed agricultural use.

No soil samples were taken.

Tree Survey/Categorisation

As part of the survey a total of 17 trees were categorised. Following BS5837:2012 subcategories 4.5 the trees have been considered as groups, "it identifies trees that form cohesive arboricultural features, either aerodynamically (trees that provide companion shelter), visually (avenues or screens) or culturally (parkland or woodland pasture)." Only individual trees with stem diameters greater than 150mm are plotted. Smaller trees are present within the group of trees on boundary.

Access was gained to all trees that would potentially be affected by the proposal. Due to location and dense overgrown scrub/hedging along the boundary some of the tree canopies are estimated, this will not affect any results or conclusions made. All stem diameters were measured and subsequent RPAs calculated.

There were 17 specimens within the area which have been classified as follows: -

Category A Trees – Features of high quality. BS5837:2012	x 7
Category A Hedge – Features of high quality. BS5837:2012	x 1
Category B Trees – Features of moderate quality. BS5837:2012	x 8
Category B Hedge – Features of moderate quality. BS5837:2012	x 1
Category C Hedge – Features of low quality. BS5837:2012	x 1
Category C Trees – Tree showing irreversible decline or infected BS5837:2012	x1

Arboricultural Impact Assessment

The proposal is to construct six affordable houses upon a small parcel of land that has been used as a pony paddock within the village of Dilwyn, Herefordshire.

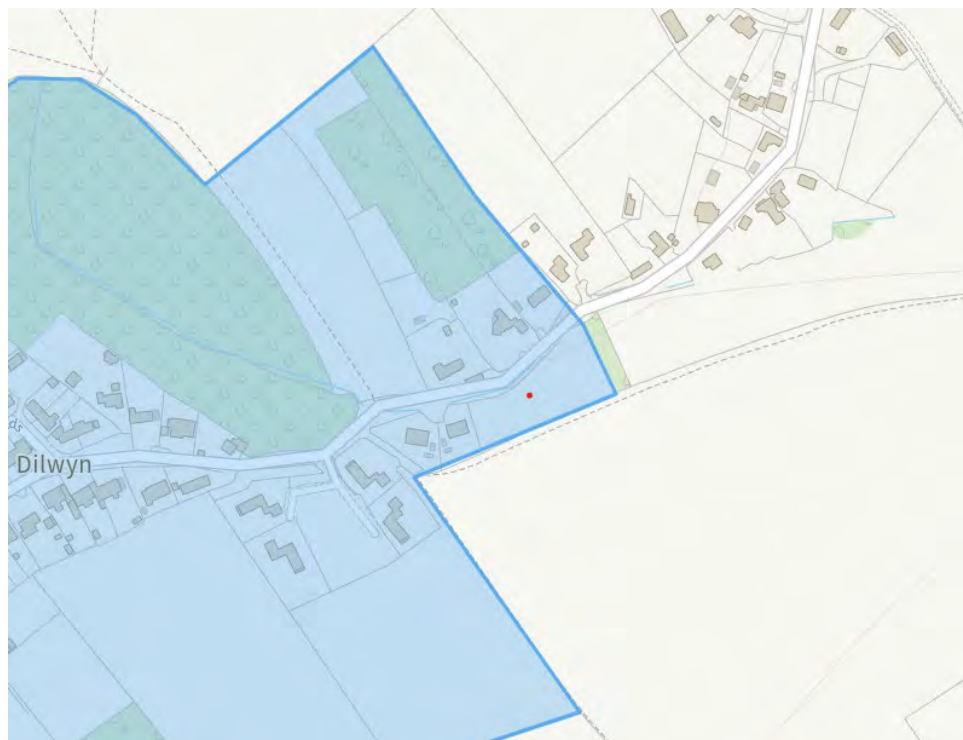
No trees will be required to be removed for the application, however *Hymenoscyphus fraxineus* (Ash dieback) has been clearly identified on site and at other sites within the village and trees will be required to be removed for Health and Safety reasons . The application will require new roadside access, the loss of sections of hedgeline will be offset by additional new mixed native hedge planting along the rear of the application area and in between each plot.

Subject to lay out additional new trees will be planted in suitable locations within the application area. The Ash tree at centre of site and the group of Ash trees in the east section of the application area are to be removed via felling license 61a (ref: 015/1456/2023), this agreement also include restocking densities of 1100/ha over the same area so no net loss of tree cover will occur. It should be noted these trees will be removed under H&S guidelines regardless of planning application.

The adjacent field has a current planning application with no Arboriculture Survey and no Tree Protection Plan for hedgerow trees within this plot, the current lay out shows structures with in RPAs. This area is out of applicants control.

All other trees and hedges are located around the site boundaries and can be protected in linear groups and protected from any building works and any changes in ground level possibly associated with soft landscaping.

Dilwyn
Conservation
Area



Design Constraints

The existing features present have allowed the trees and root systems to develop fully into the paddock, within the linear roadside margin and into surrounding fields. The design is sympathetic to the surrounding landscape and centrally located to minimize impact on site margins.

The trees will be protected with root protection areas and tree protection barriers. The trees can be protected in groups rather than individual specimens. Should there be any changes these must be agreed in writing and delivered via an arboricultural method statement and the works are to be supervised by the arboriculturist.

The tree survey plan is based on provided information and all measurements and site boundaries should not be scaled off from the drawings.

Services

At the time of this report details on proposed services were not available, all new lines that are required should avoid trees and hedges RPAs, if this is not possible the arboricultural advisor should be contacted.

Post Development Implications

Due to the dynamic nature of trees and their interaction with the environment their health and structural integrity is liable to change over time, because of this it is recommended that all trees on site be inspected regularly.

No internal decay detection has been carried out.

Arboricultural Works

If there is a risk of damage to the canopies from the activities on site to the trees that are to be retained a suitably qualified arboriculturist should be engaged to assess the canopies to allow clearance.

A qualified tree surgery company will undertake any recommended formative work to BS3998:2010.

Sequenced Methods of Construction and Tree Protection

Phase 1 – Pre-Contract Meeting

An onsite meeting will be held if required, with all relevant parties; including the contractor, appointed arboricultural advisor and local planning authority representative.

Phase 2 - Execute Agreed Tree Work/ Removal

Removal of trees under felling license 61a (ref: 015/1456/2023) , this work is to take place regardless of planning application. Hedgerow access points should be removed outside bird nesting season and or under guidance of appointed ECoW .

Phase 3 - Tree Protection Barriers

Fencing is to be erected around the plot with signs attached to the fence at regular intervals prior to any other work commencing on site, the arboricultural advisor is to confirm.

Phase 4 - Construction of Hard Standing / site compound

Subject to final layout. Location of site compound is to be confirmed prior to any construction and to be located outside any RPAs. The site has various options for parking and storage and should be clearly identified within the Construction Environmental Management Plan (CEMP) which will be used to control general site activities.

Phase 5 - Demolition of Existing Structures and Buildings

NA

Phase 6 - Ground works, Foundations, Drainage and Services

TBC with structural engineer. Exact location and installation method are to be confirmed in writing prior to any construction, currently no effect upon RPAs is recorded.

Phase 7 - Supervision, Monitoring and Maintenance

It is the responsibility of the project manager to ensure that the arboricultural implications are taken into account. An arboricultural advisor shall be appointed to provide advice and monitor the tree protection during the construction phase. During construction if roots become exposed, they should be immediately covered or wrapped in damp hessian. Roots <25mm in dia. can be pruned by hand and covered with topsoil. Roots >25mm should be retained where possible under guidance of the appointed arboricultural supervisor.

Tree Protection Plan

All trees that are to be retained on site are to be protected by barriers, the system will ensure the Root Zones are protected before any construction activities begin and will remain in place. The specification for vertical barriers within BS5837 (2012) "Trees in Relation to Design, Demolition and Construction" are to be used. These barriers and the protected areas are to remain unaltered throughout the entire project, if this is not possible the project arboriculturalist should be contacted and approval from local planning authority sought. Weatherproof tree protection posters should be affixed to the fencing at regular intervals all in clear view.

Hedgerows are present on all sides of the proposal, site protection fencing will be required for health and safety reasons, this barrier can be utilised to protect the existing hedgerows and set back 3m from centreline of the hedgerow.

Site compound

The protected retained trees are located around the boundaries of the site, site storage and parking should be located away from margins where RPAs are located and should not have a detrimental effect upon trees or hedges.

Foundation design/groundworks

Standard installation techniques can be utilised. The RPAs on site and normal construction techniques will be adopted in relation to on site ground conditions as specified by site engineers.

BS 5837(2012) 5.6 states all construction operations in the vicinity of trees need to be planned in advance to avoid the disturbance to the physical protection barriers and the tree itself.

Soft landscaping

Soil compaction within protected areas is to be prevented, this includes tree, hedge and shrub planting and also includes soil preparation for grass seeding, any soil cultivation within an RPA will be carried out carefully by hand to ensure no damage to roots occur. Temporary topsoil storage will be located outside of all RPAs and follow BS4428 handling topsoil and should only be carried out when weather and soil conditions are suitable.

General Precautions

No materials that are likely to have an adverse effect on tree health such as oil and petrol will be stored within 10 metres of the tree canopies. There should be a designated area for storage of petrochemicals and other materials. Upon completion of project all materials should be removed from site.

Legislation

Birds

The Wildlife and Countryside Protection act 1981 (amended) provides the legal protection of wild birds. All nesting birds and their nests, eggs and young are protected from killing, injury, taking or selling.

Bats

All species of bats and their breeding sites or resting places are protected under the Conservation of Habitats and Species Regulation 2010 and the Wildlife and Countryside Protection act 1981 (amended). The deliberate capture, disturbance, injury or killing of bats is prohibited as is damaging, destroying or obstructing access to any place used by bats for shelter or breeding, whether they are present or not. Reckless disturbance or obstruction of access to a roost are also a criminal offence.

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Survey Sheet Classification

Key

All tree numbers refer to attached site plans
Species given by botanical name followed by common name in brackets.

Age Class

Y- Young trees up to ten years of age.
SM – Semi-mature, trees less than 1/3 life expectancy.
EM – Early mature, trees 1/3 – 2/3 life expectancy.
M – Mature trees, over 2/3 life expectancy.
OM – Over mature, declining or moribund trees of low vigour.
V – Veteran, tree possessing certain attributes relating to veteran trees.

Overall Condition

G - Good: Trees with only a few minor defects and in good overall health needing little if any attention.
F – Fair: Trees with minor, but rectifiable, defects or in the early stages of stress from which it may recover.
P – Poor: Trees with major structural and/or physiological defects that it is unlikely the tree will recover in the long term.
D – Dead: Trees no longer alive. This could also apply to trees that are dying and unlikely to recover.

Codes of retention: BS5837:2012

U- Tree to be removed – in a condition that they cannot be realistically retained in current land use for longer than 10 years
A- Tree of high quality and value with an estimated remaining life of at least 40 years
B - Tree of moderate quality and value with an estimated remaining life of at least 20 years
C - Tree of low quality and value with an estimated remaining life of at least 10 years or young trees with diameter below 150mm

1 - Mainly of arboricultural value- a good example of species or component of group
2 - Mainly of landscape value –of particular visual importance as arboricultural and or landscape feature
3 - Mainly of cultural or conservation value –of significant conservation, historical or commemorative value

NB: Survey carried out in accordance with BS: 5837: 2012 Trees in relation to construction recommendations. Consult BS for further information.

Tree Survey & Categorisation - BS5837:2012

Tree No	Species	Diameter (mm)		Tree Height (m)	Lowest Branch M/dir	Branch Spread (m)		Life Stage	General Observations/Justifications	Recommendations	Priority	Life Expect	BS5837 Cat
		D1	D4			N	E					RPA	
		D2	D5	Crown Height (m)		S	W						
		D3	D Ave										
T1	Fraxinus exc.	700		17+	4	7	7	M	large tree leaning over road	monitor for Ashdieback		10	A2
				5		7	7					8.4	
T2	Fraxinus exc.	400		13	3	4	4	M	part of linear group	monitor for Ashdieback		10	B2
				5		1	1					4.8	
T3	Crataegus m.	190	210	11	1	3	3	M	Over shaded and dominated by others	reduce		20+	B2
		240		1		2	3					4.5	
T4	Fraxinus exc.	400	390	17	6	5	7	M	large bi stem with poor union	monitor for Ashdieback		10	B2
				9		4	3					7.3	
T5	Fraxinus exc.	410		17	6	1	7	M	part of linear group	monitor for Ashdieback		10	B2
				10		1	3					4.9	
T6	Fraxinus exc.	420		16	6	3	2	M	part of linear group/high crown	monitor for Ashdieback		10	B2
				9		1	1					5	
T7	Fraxinus exc.	300	350	14	4	2	2		part of group, large bark inclusion& leaning	monitor for Ashdieback		10	B2
				5		8	3					5.5	

Site:

Surveyor: Jonathan Fennessy

Date:

Tree No	Species	Diameter (mm)		Tree Height (m)	Lowest Branch M/dir	Branch Spread (m)		Life Stage	General Observations/Justifications	Recommendations	Priority	Life Expect	BS5837 Cat
		D1	D4			N	E					RPA	
		D2	D5			S	W						
		D3	D Ave										
T8	Fraxinus exc.	510	240	14	8	6	5	M	part of group , large bark inclusion at union	monitor for Ashdieback		10	B2
				7		6	6.8						
				8									
T9	Fraxinus exc.	700		15	7	6	5	M	part of linear group ,central tree	monitor for Ashdieback		10	A2
				9		5	8.4						
				7									
T10	Fraxinus exc.	820		18	3	5	4	M	largest tree at centre, donimates smaller specimnes around	monitor for Ashdieback		10	A2
				5		5	9.8						
				6									
T11	Fraxinus exc.	740		17	4	1	1	M	large dog leg/leaning	monitor for Ashdieback		10	B2
				6		1	8.8						
				5									
T12	Fraxinus exc.	790		18	7	9	9	M	deadwod in high canopy	monitor for Ashdieback		10	A2
				9		9	9.4						
				8									
T13	Fraxinus exc.	780		20	8	9	9	M	leaning and dominates understorey	monitor for Ashdieback		10	A2
				11		10	9.3						
				8									
T14	Fraxinus exc.	450	450	18	6	5	6	M	large tree on external hedgeline,bark inc at union	monitor for Ashdieback		10	B2
				6		6	7.6						
				7									

Site:

Surveyor: Jonathan Fennessy

Date:

Tree No	Species	Diameter (mm)		Tree Height (m)	Lowest Branch M/dir	Branch Spread (m)		Life Stage	General Observations/Justifications	Recommendations	Priority	Life Expect	BS5837 Cat	
		D1	D4			N	E					RPA		
		D2	D5	Crown Height (m)		S	W							
		D3	D Ave											
T15	Acer Camp	370		10	2	3	4	M	part of hedgeline	maintain as hedgerow tree		40+	A2	
						4	2					4.4		
				2										
T16	Corylus avellana	200	190	8	G	5	5	M	large coppiced stand	coppice on long cycle		40+	A2	
		190	170			5	4					4.7		
		190	190	G										
T17	Fraxinus exc.	840		17	2	7	7	M	Ashdieback present on leaves / major dieback present	remove		0	U	
						7	7					0		
				4										
H1	mixed native			1.5		1	1	M	good species diversity	continue to manage at new height		20+	B	
						1	1							
h2	mixed native			1.5		1	1	M	poor , lomited diversity	re-enforce and extend		10+	C	
						1	1							

H1 and location of new access points below





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Ash trees to be removed



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Hedgerow at rear to be re enforced and extended

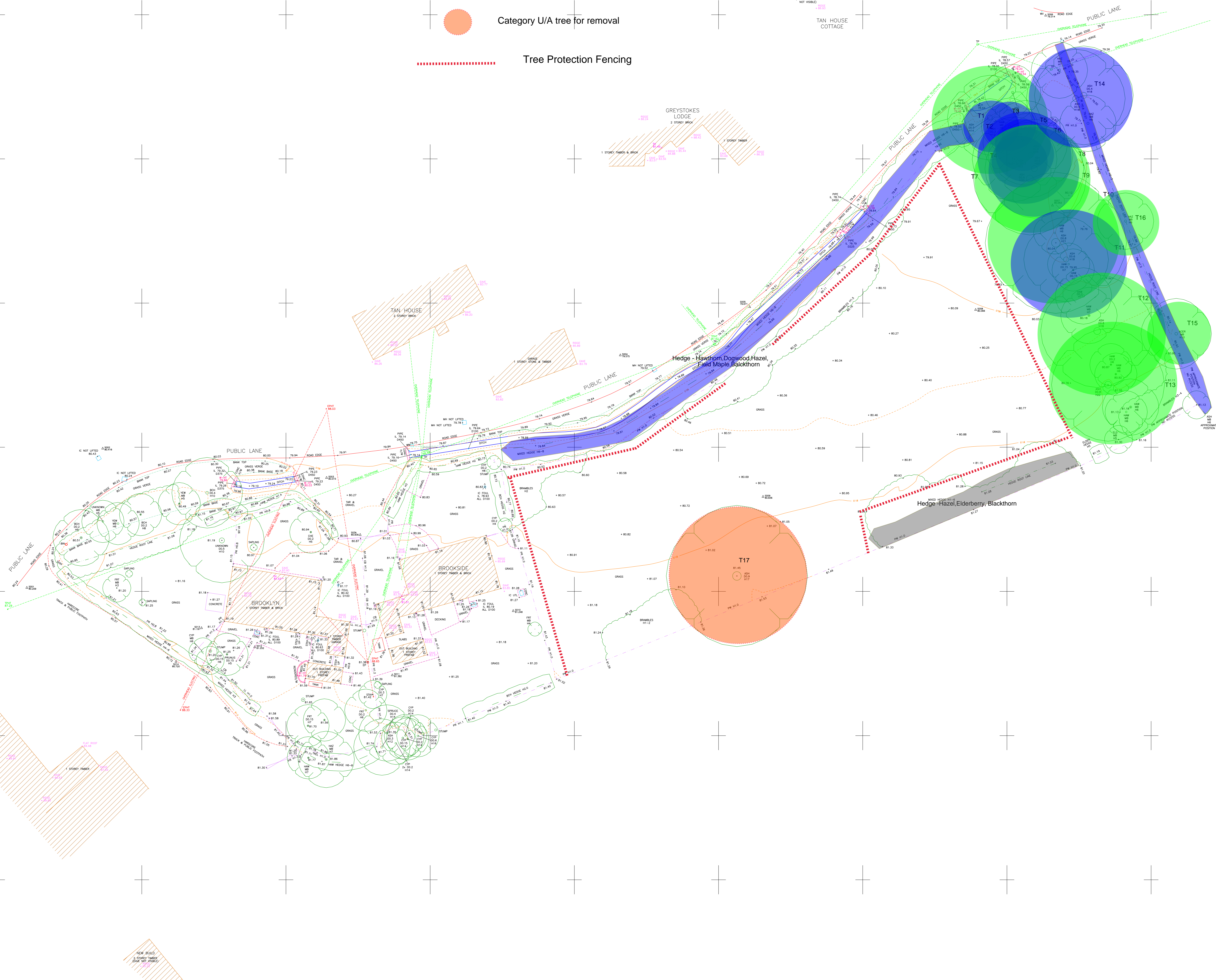


Existing site entrance



Appendix 1 RPA & Categorisation Drawing





Tree Protection Fencing



Station	Easting	Northing	Level
S001	341924.059	546750.313	80.209
S002	341934.582	547279.828	80.416
S003	341965.616	547775.760	80.073
S004	342006.373	547892.766	79.575
S005	342028.315	547909.471	79.671
S006	342065.375	548339.904	79.134
S007	342066.314	548313.563	79.013
S008	342055.625	547999.072	80.066
S009	34226.168	547773.124	80.836
S010	341991.521	547757.294	81.282
S011	341974.746	547548.384	81.348
S012	341955.662	547373.384	81.475
S013	341948.284	547543.930	81.191
S014	341944.738	547500.251	81.194
S015	341970.294	547677.853	80.836

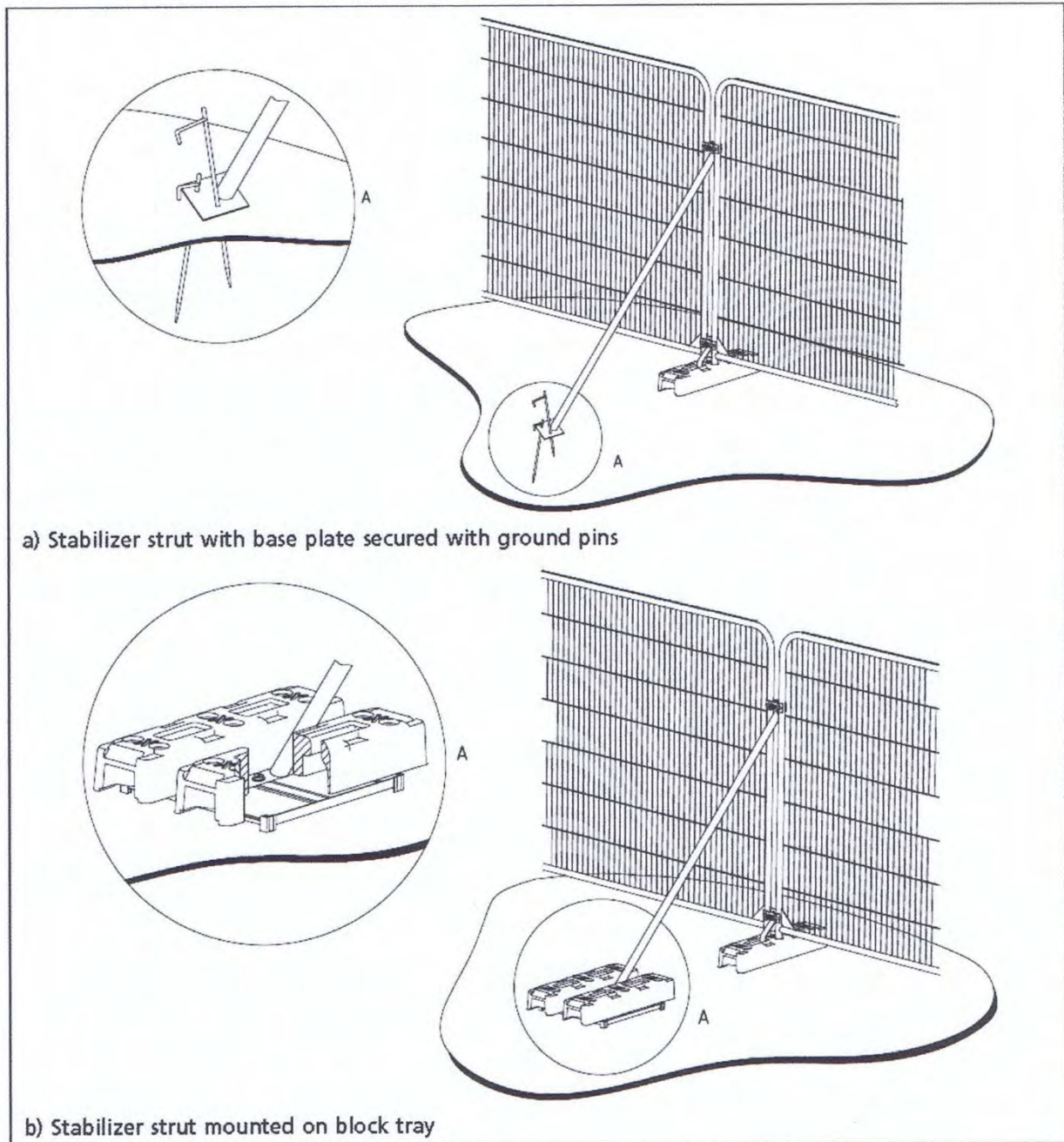
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BS5837:2012 British Standards Institution Table 1 – Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
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 land use for longer than 10 years	<ul style="list-style-type: none">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 declineTrees 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 <p><i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see [BS5837:2012] 4.5.7.</i></p>			
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if 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, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them 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	

Appendix 2: Tree Protection Barrier construction

Figure 3 Examples of above-ground stabilizing systems



PLANNING DRAWING

Proposed Hard & Soft Landscaping Key:

= Tarmacadam surface (shared access/egress), as per Herefordshire Highways Specification for New Developments (below).

Appendix A1 - Construction Thicknesses

Standard Road Construction			
	Nom. Size	Materials	Compacted Thickness
Surface Course	10mm	High Stone Content/Hot Rolled Asphalt – HSC/HRA 55/10 F Surf 40/60 des minimum PSV 55, to DfT SHW 911	40mm
Binder course	20mm	AC20 dense bin 100/150 rec to DfT SHW 906	60mm
Base Course	32mm	AC32 dense base 100/150 rec to DfT SHW 906	130mm in 2 Layers
Sub-base and Capping	CBR 5% and Above	Type 1 sub base to DfT SHW Clause 803	225mm
	2% - 5%	Type 1 sub base DfT SHW to Clause 803 6F1 or 6F2 Capping Layer to SHW Clause 613	150mm 350mm
	Below 2%	Type 1 sub base DfT SHW to Clause 803 6F1 or 6F2 Capping Layer to SHW Clause 613	150mm 600mm

= Gravelled surface (shared permeable areas).

= Sandstone paving slabs.

= 1m (h) Post and wire fence.

= Mixed grassed seed/turfed areas.

= Existing hedgerows.

= New mixed native hedgerow.

= New fruit trees with 1.5m (h) of mixture of apple, pear and cherry.

= New beech tree with 1.5m (h).

= New field maple tree with 1.5m (h).

= New oak tree with 1.5m (h).

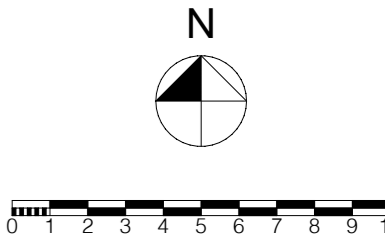
Condition A: Restock on felled area, the following conditions apply to the licensed felling in 61a.

- Before 30th June 2029 the land on which the felling took place must be:
 - adequately prepared to provide suitable planting conditions for successful establishment
 - Planted with 40% field maple, 30% oak (robur/petraea), 30% beech to achieve not less than 1100 stems per hectare evenly distributed over the site.
- For a period of 10 years from the planting:
 - The plants must be protected against damage and be adequately weeded.
 - Any failure or losses should be replaced as necessary to provide a stocking of not less than 1100 stems per hectare evenly distributed over the site.
- Any replanting must be maintained in accordance with the rules and practice of good forestry.



notes
this drawing is copyright (I do not scale off this drawing) (I dimensions to be checked on site) any discrepancies to be reported to the architect immediately

this information has been based on drawings prepared by AD Horner date: April 2022



Outline of existing trees to be removed under a felling license 61a (ref: 015/1456/2023), issued by the Forestry Commission.
Trees have ash dieback and are dangerous whereby they are to be removed irrespective of this planning application

C 19.05.23 Drawing updated to reflect BB OHA both LPA and Planning Consultant's comments.
B 15.05.23 Drawing updated to reflect BB OHA both LPA and Planning Consultant's comments.
A 01.07.22 ash tree removed garages to units 2 and 3 revised

Rev Date Description Intd Chkd

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project
Plot 2
Dilwyn
Herefordshire

drawing
Sketch Proposal: Site Plan

scale date drawn
1:2000B1 June 2022 JP

project nos. status
2022 008 / 7.03 Planning

drawing nos. revision

SK 003 C

Drawing notes:
- Please refer to drainage consultant's information for proposed storm and foul scheme.



notes
this drawing is copyright I do not scale off this drawing I dimensions to be checked on site I any discrepancies to be reported to the architect immediately

this information has been based on drawings prepared by AD Horner. date: April 2022

N

0 10 20 30 40 50 60

Rev	Date	Description	Int'l	Chkd
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project
Plot 2
Dilwyn
Herefordshire

drawing
Site Location Plan

scale	date	drawn
1:1250@A3	June 2022	JP

project nos.	status
2022.008 / 7.03	Planning

drawing nos.	revision
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E 001