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Site clearance
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Veteran tree works
Local Authority



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**Arboricultural Advice in accordance with
BS 5837:2012 Trees in relation to design, demolition & construction –
Recommendations**

Tree Survey & Constraints Advice

27 October 2021

Subject Property: Land Adjacent to Brascote Lane
Newbold Verdon
Leicestershire

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1. INTRODUCTION

- 1.1 **Brief:** We are instructed to carry out an arboricultural survey for of land adjacent to Brascote Lane, Newbold Verdon and to provide arboricultural advice in accordance with BS5837:2012 *Trees in relation to design, demolition & construction – Recommendations* (hereafter BS5837) in relation to the proposed development potential.
- 1.2 **Qualifications and experience:** I have based this report on our site observations and the provided information, and I have come to conclusions in the light of my experience. I have experience and qualifications in arboriculture and list the details in Appendix 1. Observations or comments on structural engineering and the law are made from an arboricultural perspective. Specialist professional advice should be sought to clarify such observations.
- 1.3 **Scope of this report:** This report includes an assessment of the trees in relation to potential development in order to:
1. Record principle attributes (species, height, crown spread and stem diameter).
 2. Determine their quality and value.
 3. Identify their remaining contribution and retention grading.
 4. To show the collected data graphically on the Tree Constraints Plan.
- 1.4 **Purpose of the report:** The data collected and plotted is used to inform the layout and assist in the identification of a defensible level of tree retention/removal based on tree quality.
- 1.5 **Caveats:** This survey has been undertaken in compliance with BS5837:2012; it is not intended to be a tree safety survey. Any notes offered on structural integrity of trees are incidental, though where trees are considered to be in immediately hazardous condition (identified by red font in the Structural condition & Notes column, see below), our recommendations given for immediate intervention should be put in hand by the owner / site manager as soon as can be arranged.

Trees are dynamic living organisms capable of achieving considerable size and structural complexity. They are exposed to and can become damaged by the elements and by human activity, and have co-evolved with decay-causing organisms that can degrade and sometimes destroy their structural integrity. Due to genetic characteristics and local micro environmental factors this integrity can be innately uncertain. The laws and forces of nature dictate a natural failure rate even among trees that are healthy and structurally sound. By their very nature, therefore, trees cannot be considered entirely hazard-free.

Tree surveys and / or tree inspections are, inherently, only a snapshot in time of the physiological and structural condition of the trees concerned.

Unless otherwise stated in our reporting material, all such surveys and inspections are undertaken from ground level and no internal inspections or tests have been undertaken. Any structural defects present might not be visible, for example being

masked by vegetation, whether the tree's foliage, plants growing round the base of the tree, or climbing plants growing on the stem and into the crown.

Unless otherwise states, the survey data should be considered time-limited for planning purposes to a maximum of three years (absent revisions of BS5837, which render pre-existing data obsolete).

2 BS5837:2012 - THE ITERATIVE PROCESS

2.1 Trees and the planning system – BS5837 Annex B

2.1.1 Under the UK planning system, local authorities have a statutory duty to consider the protection and planting of trees when granting planning permission for proposed development. The potential effect of development on trees, whether statutorily protected (e.g. by a tree preservation order or by their inclusion within a conservation area) or not, is a material consideration that is taken into account in dealing with planning applications. Where trees are statutorily protected, it is important to contact the local planning authority and follow the appropriate procedures before undertaking any works that might affect the protected trees.

2.1.2 The nature and level of detail of information required to enable a local planning authority to properly consider the implications and effects of development proposals varies between stages and in relation to what is proposed. Table B.1 provides advice to both developers and local authorities on an appropriate amount of information. The term “minimum detail” is intended to reflect information that local authorities are expected to seek, whilst the term “additional information” identifies further details that might reasonably be sought, especially where any construction is proposed within the Root Protection Area (RPA)¹.

2.1.3 Table B.1 Delivery of tree-related information into the planning system

Stage of process	Minimum detail	Additional information
Pre-application	Tree survey	Tree retention/removal plan (draft)
Planning application	Tree survey (in the absence of pre-application discussions) Tree retention/removal plan (finalized) Retained trees and RPAs shown on proposed layout Strategic hard and soft landscape design, including species and location of new tree planting Arboricultural impact assessment	Existing and proposed finished levels Tree protection plan Arboricultural method statement – heads of terms Details for all special engineering within the RPA and other relevant construction details
Reserved matters/ planning conditions	Alignment of utility apparatus (including drainage), where outside the RPA or where installed using a trenchless method Dimensioned tree protection plan Arboricultural method statement – detailed Schedule of works to retained trees, e.g. access facilitation pruning Detailed hard and soft landscape design	Arboricultural site monitoring schedule Tree and landscape management plan Post-construction remedial works Landscape maintenance schedule

¹ Root Protection Area is 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

3 TREE CONSTRAINTS PLANNING – INFORMATIVES

3.1 **General:** The constraints imposed by trees are the extent of the RPA, the current and ultimate spread of the crown and species characteristics including evergreen or deciduous, density of foliage, and susceptibility to honeydew drip, branch drop fruit fall, etc. Consideration of these in the planning of the site layout results in workable layouts likely to be considered acceptable through the planning process.

3.2 RPA: Definition and constraints

3.2.1 The area which should be protected during, and preserved intact after construction, in order to facilitate the healthy retention of trees concerned by safeguarding a reliable area of functioning tree roots.

3.2.2 For single stem trees this is typically based on a radial measure from the centre of the stem of the tree or trees, which is found by multiplying the stem diameter of the tree concerned by a factor of twelve. Trees with low crowns are measured at the narrowest point. For trees with up to five stems the theoretical diameter of the aggregate stem area of all stems is multiplied by twelve. Whilst for trees with more than five stems the theoretical radius of the aggregate mean diameter of all stems is multiplied by twelve.

3.2.3 Though normally plotted as a circle pre-existing site conditions can result in a polygonal RPA. Variations in the RPA must provide adequate protection for the root system and should take into account the following factors:

- a. the morphology and disposition of the roots, when influenced by past or existing site conditions (e.g. the presence of roads, structures and underground apparatus);
- b. topography and drainage;
- c. the soil type and structure;
- d. the likely tolerance of the tree to root disturbance or damage, based on factors such as species, age, condition and past management.

3.2.4 The means of protecting the RPA will include the installation of tree protection fencing prior to the start of work on site, the prohibition of various activities within the RPA (e.g. mechanical excavation, soil stripping, fire lighting, materials storage, lowering levels and creating excessive sealed surfacing), and may include the use of temporary ground protection and/or special engineering solutions where construction is proposed near to retention trees.

3.2.5 Conventional construction techniques are excluded from the RPA, however where construction in the RPA allows the retention of a good quality tree it can be completed with the successful retention of trees through the use of techniques that maintain the health and condition of the root system. Examples of these construction techniques are foundations using piles located to avoid major roots or cantilevered suspended slabs and vehicle and pedestrian access constructed over no-dig installation of a three-dimensional load bearing system. The input of an arboriculturist is essential to ensure the technique is appropriate to the site and an Arboricultural Method Statement must be provided detailing the implementation and timing of operations as part of the on-site tree protection regime. In all instances

of construction works within RPAs it should be demonstrated the trees can remain viable and additional areas protected to compensate for the areas under construction.

3.2.6 Construction of any type covering the existing open ground in RPAs is limited to an area no greater than 20% of that open ground.

3.3 **Tree crown protection**

3.3.1 This is the area above ground occupied by the crown of the tree including allowances for working space. It will also include allowance for future growth when appropriate. The extent of this area is determined by considering the existing and future crown spread of the tree(s). In certain circumstances this may be altered by an acceptable amount of pruning if considered appropriate by the arboricultural consultant and the Local Planning Authority (LPA).

3.3.2 The means of protecting the crown area is likely to include providing an adequate separation distance between retention trees and new structures where applicable, and may include pruning to allow access, where it is necessary and judged acceptable by the arboricultural consultant and the LPA. The tree protection fencing will provide the crown protection zone, though alternative and / or additional measures such as fixed and signed height limits can also be imposed.

3.4 **Proximity of trees to structures**

3.4.1 Tree characteristics vary considerably with species, these characteristics may include honeydew that may be damaging to surfaces, fruit that can cause slip hazards and leaves that block gulleys. Most of these issues can be eliminated at the detailed design stage to prevent post-development tree resentment.

4 TREE RETENTION & REMOVAL GUIDANCE

4.1 Tree survey methodology

4.1.1 A tree survey was carried out compliant with BS5837. The collected data is included as Appendix 2 and the pertinent information is shown graphically on the Tree Constraints Plan. (Appendix 3).

4.1.2 Trees are categorised in accordance with the cascade chart in Table 1 of BS5837:2012. The purpose of the categorisation process is to differentiate the quality and value of the existing tree stock so that informed decisions can be made on the retention or removal of trees.

4.1.3 The tree categories are summarised thus:

Category U: Trees unsuitable for retention that will be lost within the short term for reasons of physiology or poor structural integrity.

Category A: Trees of particularly high quality in arboricultural, landscape or cultural/conservation terms

Category B: Moderate quality trees downgraded from the high category because of significant defects, groups with a collective value through numbers rather than individual tree quality or trees with identifiable cultural or conservation values.

Category C: Trees with low value in arboricultural, landscape or cultural/conservation terms. Also includes young trees with a stem diameter of less than 150mm.

For trees in categories A – C subcategories 1, 2 & 3 are given to reflect arboricultural, landscape and cultural values respectively.

4.2 Findings of the survey

4.2.1 In the course of the tree survey we identified 26 individual trees, 10 tree groups, and 9 hedgerows. Of these it was found that they fell into the following quality and value grades:

QV Cat.	Description	No. of trees	%	No of tree groups	%	No. of hedges	%
U	Trees <u>unsuitable</u> for retention	3	11.5	1	10	0	0
A	Trees of particularly <u>high</u> quality	0	0	0	0	0	0
B	Trees of <u>moderate</u> quality	13	50	5	50	7	78
C	Trees of <u>low</u> quality	10	38.5	4	40	2	22
		26	100	10	100	9	100

4.3 Tree retention / removal guidance

- 4.3.1 In critically grading the trees to make informed decisions on the retention and removal decisions the emphasis is on the loss of lower quality trees to enable the retention of better-quality trees.
- 4.3.2 Trees with a retention span of less than 10 years for reasons connected with their physiological or structural condition are not a consideration in the planning process. These trees are graded Category U in the BS 5837 categorization method.
- 4.3.3 Low quality trees are graded Category C and can generally be considered for removal to facilitate development, though consideration may need to be given to the mitigation for losses in the landscaping scheme.
- 4.3.4 Trees in higher categories that are considered to impose such a constraint on development that their retention would be disproportionate to their existing value are also sometimes identified for removal. This only rarely applies to A category trees, being those of 'high quality and value', but can more defensibly apply to B grade trees, i.e. those of 'moderate quality and value'. The importance of mitigation for losses in the landscaping scheme increases substantially as the quality of trees to be removed increases.
- 4.3.5 There are three trees and one tree group that are unsuitable for retention, nos. 7, 22 & 24 and TG 6; these are shown on the tree constraints plan for removal.
- 4.3.6 The trees are located around the perimeter of the site and therefore I have shown the majority of the low-quality trees on the site to be retained. The exception to this is the south boundary of the site with Brascote Lane. I have anticipated that site access for highways will be required here. The boundary with Brascote Lane is relatively narrow at approximately 40m and all trees (tree 19 and TG 8) plus the hedgerow H5 and all are graded category C. On the basis of the limited width for the site access and the low quality of the trees, all are shown for removal to facilitate development.
- 4.3.7 Provision of another site access from Brascote Lane (assuming this to be necessary rather than solely from the south) will inevitably result in the loss of a section of the moderate quality hedgerow H8. The extent and location of the section to be removed will be determined by highways constraints rather than arboricultural reasons.
- 4.3.8 This retention and removal advice is preliminary in nature; it may be revised as the project evolves and further constraints come to light. As a further consideration a number of the trees around the site are ash, and are showing signs of the disease Ash Dieback. The long-term future of the ash once infected is unclear, though evidence suggests a high mortality level. At this stage a precautionary approach is taken and, unless trees show very advanced dieback, they are assessed with a life expectancy of at least 10 years – equating to category C. It may be necessary to revisit this advice as time progresses, and certainly future management of the trees on the site will need to factor the presence of the pathogen into inspection regimes.

4.4 **Shading**

- 4.4.1 For those trees where shading may be a concern due to size and orientation an indication of the area of obstruction of sunlight during the main course of the day is shown on the Tree Constraints Plan as an *indicative shading arc*. Development is not necessarily excluded from this area, but care should be taken when planning internal layout of houses to ensure adequate sunlight is received. Similarly, gardens should not be wholly within this area and ideally 50% of the garden area should be outside this area.

4.5 **Statutory Legal Protection**

- 4.5.1 I carried out a search using the Hinkley & Bosworth Borough Council website on the 27th October 2021. No tree preservation orders applying to the trees on or adjacent to the site were listed. Additionally, no conservation areas covering the site were listed.

4.6 **Veteran Trees**

- 4.6.1 The National Planning Policy Framework states at section 175 c) that *development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists*
- 4.6.2 Trees that fulfil the size criteria detailed in *Ancient and other veteran trees: further guidance on management (Lonsdale, ATF 2013)* are assessed for additional features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned. Where these features are present the trees are recorded as veterans.
- 4.6.3 Using this assessment method I found no trees that can be considered veteran on, or adjacent to the site.

- 4.7 **The full extent of the arboricultural constraints are presented on the Tree Constraints Plan at Appendix 3.**

This completes my advice to date.

Chris Shortis

Chris Shortis Dip. Arb. (RFS), M. Arbor A., PG Cert MHRA

Appendix 1

Brief qualifications and experience of Chris Shortis

1. Qualifications

- Royal Forestry Society Professional Diploma in Arboriculture.
- Arboriculture Association Technician Certificate (Credit).
- National Certificate in Arboriculture and Forestry (Double Distinction).
- Professional Tree Inspection
- Licensed user of *Quantified Tree Risk Assessment*.
- Post-graduate Certificate *Multi Hazard Risk Assessment* (University of Twente)

2. Practical experience:

- Bournville Landscapes and Tree Care Ltd: Arborist.
- Midland Forestry Ltd: Arboriculturalist.
- Midland Forestry Ltd: Arboricultural Consultant
- Midland Forestry Ltd: Associate Director

3. Continuing professional development:

Midland Forestry is committed to continuing professional development to ensure all staff continue to learn and develop throughout their careers so they keep their skills and knowledge up to date and are able to work safely, legally and effectively.

Sample of the seminars and conferences attended:

- International Society of Arboriculture conference 'Defensible Tree Management Systems'
- Practitioners guide to Visual Tree Assessment
- Arboriculture Association conference 'New Horizons in Arboriculture'
- Visual Tree Assessment, Tree Safety Diagnosis and Failure Analysis seminar by Dr. Claus Mattheck
- Preparing for and giving evidence at Public Local Inquiries
- 40th National Arboriculture Conference
- Fungal Decay Process & Applied Engineering
- The Institute of Chartered Foresters' conference Trees, People & the Built Environment
- Designing with Trees
- Capital Asset Value for Amenity Trees
- Dynamic Structural Analysis of Trees Subject to Wind Loading & the Biomechanical Implications

4. Membership of professional bodies:

- Professional Member of the Arboriculture Association.
- Member of the Royal Forestry Society.
- Associate Member of the Institute of Chartered Foresters.

APPENDIX 2 - Tree Survey Schedules

Explanatory Notes for Individual Trees

- **ID no.:** Trees are recorded using a site-specific unique identification number. This identification number is used for all references throughout the report and associated plans
- **Species:** The species identification is based on visual observations and the common English name of what the tree appeared to be is listed. In some instances, it may be difficult to quickly and accurately identify a particular tree without further detailed investigations. Where there is some doubt of the precise species of tree, it is indicated it with a '?' after the name in order to avoid delay in the production of the report.
- **Estimated dimensions:** Estimated dimensions are shown in *italics*.
- **Height:** Height is to the nearest metre.
- **Stem diameter(s):** This is measured at 1.5m above ground level and recorded in millimetres. Trees with low crowns are measured just above the root flare. For trees with multiple stems see 3.2.2 in main text.
- **NSWE:** The branch spread is measured in metres at the four cardinal points of the compass to derive an accurate representation of the crown.
- **Ht 1st branch:** Height above ground in metres of attachment point of first significant branch (cardinal point may be given indicating direction of lowest branch).
- **Crown Clearance:** Height of the crown above ground level at the lowest point.
- **Life Stage:** Assessed as Young, Semi-Mature, Early-Mature, Mature, Over Mature and Veteran.
- **Phys. condition:** An assessment of the physiological condition (i.e. health/ vitality) status of the tree summarised into:
 - Good: Generally in healthy condition
 - Fair: Condition satisfactory though below mean species performance
 - Poor: Tree in decline
 - Dead: Self-explanatory
- **Structural condition & Notes:** Notes on the structural integrity of the tree based on visual tree assessment, including damage,

decay fungi, pests, etc as appropriate, plus other pertinent observations

- **Management recommendations:** Recommendations for intervention (e.g. tree surgery, felling, etc) prior to any development. Hazardous trees are highlighted within the survey schedule.
- **Ret. Span:** An estimate of the remaining contribution span that the tree or group of trees is expected to have, based on species, condition and context. The following longevity bands are used, categorised accordingly:
 - <10 Tree is dead, dying, has a severe structural defect, or will become exposed following inevitable loss of companion shelter. Possibly requires sanitation felling Unsuitable for retention
 - 10+ Short-term longevity only: replacement planting generally appropriate
 - 20+ Mid-term longevity
 - 40+ Good longevity
- **QV Grade:** Quality & Value grade classification according to BS5837
 - U - Unsuitable for retention
 - A - High retention priority
 - B - Moderate retention priority
 - C - Low retention priority
 - +subcategories 1, 2 & 3 reflecting arboricultural, landscape and cultural values respectively.
- **Proposal:** Preliminary judgement on defensible tree retention / removal balance.
 - RET - Trees preferably retained
 - REM - Trees defensibly removed to facilitate development
 - U - Trees identified to be unsuitable for retention

Tree Survey Data for Individual Trees

ID No.	Species	Ht.	Dia. (mm)	N	S	W	E	Ht. 1 st br.	Cr. Clr.	Life Stage	Phys. Cond	Structural condition & Notes	Management recommendations	Ret. Span	QV Grade	Proposal
1	Field maple	12.5	450	4.2	2.8	3.6	3.9	1.3 - E	1.1	M	F	Ivy covered lower stem and crown. Tree growing from middle of hedgerow. No apparent significant defect	No action required at time of survey	20+	B1	RET
2	Ash	12	9x160	3	3.5	3.6	4.2	1.7 - W	2.3	EM	F	Multiple stems from ground level with tight forks where stems meet. Tree growing from edge of hedgerow. No observed dieback or disease	No action required at time of survey	20+	C1	RET
3	Pedunculate oak	13.2	640	6.6	5.8	7	4.6	1.8 - W	2.4	M	F	Ivy covered lower stem. Major deadwood in lower crown. No observed dieback or disease and no sign of obvious decay	Stabilise dead wood according to occupancy levels beneath the crown.	40+	B1	RET
4	Pedunculate oak	6.5	240	2.8	3	2.6	3	0.6 - S	1.8	EM	F	Ivy covered lower stem and crown. Low squat crown. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B1	RET

ID No.	Species	Ht.	Dia. (mm)	N	S	W	E	Ht. 1 st br.	Cr. Clr.	Life Stage	Phys. Cond	Structural condition & Notes	Management recommendations	Ret. Span	QV Grade	Proposal
5	Crack willow	15	8x400	8.5	4.9	6.2	7	1.7 - N	1	M	F	Multiple stems from ground level with included unions where stems meet. Subsiding/partially failed stems towards N. Minor dieback in upper E crown. No sign of stem or basal decay, but unable to fully inspect base of tree due to dense vegetation.	No action required at time of survey	10+	C1	RET
6	Ash	16.4	480	3	7	6.8	5	1.8 - S	3	M	P	Cannot fully assess base of tree due to dense hedgerow. Ash dieback apparent throughout crown. Historic major limb removal apparent above field edge.	No action required at time of survey	10+	C1	RET
7	Ash	16	720	4.6	4.2	4	6.4	2.3 - E	1	M	P	Ivy covered lower stem and crown. Advanced dieback throughout crown with associated major deadwood.	Fell to as low as reasonably practicable	<10	U	U
8	Pedunculate oak	15.4	660	7	8.1	4.8	5	2.6 - E	3.9	M	F	Ivy covered lower stem and crown. Moderate deadwood in central crown. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	40+	B1	RET
9	Pedunculate oak	14	520 270	8	6.7	7.2	6.5	2.1 - NW	3.2	M	F	Twin stems from ground level with tight forks where stems meet. Ivy covered lower stem and crown. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	40+	B1	RET

ID No.	Species	Ht.	Dia. (mm)	N	S	W	E	Ht. 1 st br.	Cr. Clr.	Life Stage	Phys. Cond	Structural condition & Notes	Management recommendations	Ret. Span	QV Grade	Proposal
10	Pedunculate oak	14.3	720	5.5	6.2	6	6	1.9 - N	2	M	F	Ivy covered lower stem and crown. Major deadwood in lower crown. No observed dieback or disease and no sign of obvious decay	Stabilise dead wood according to occupancy levels beneath the crown.	40+	B1	RET
11	Pedunculate oak	15	680	8.5	8.2	7.1	8.1	2.3 - NE	3	M	F	Ivy covered lower stem and crown. Major deadwood in lower crown. No observed dieback or disease and no sign of obvious decay	Stabilise dead wood according to occupancy levels beneath the crown.	40+	B1	RET
12	Pedunculate oak	15.3	600	6.4	7	5.6	6.7	2.1 - N	3.2	M	F	Crown has been lifted above field edge. Major deadwood in lower crown. No observed dieback or disease and no sign of obvious decay	Stabilise dead wood according to occupancy levels beneath the crown.	40+	B1	RET
13	Ash	14.8	620	8	7.2	5.1	6.6	2.8 - N	2.6	M	F	Small amount of apical dieback in lower and central crown to N and W. Moderate deadwood above field margin. No basal or stem decay apparent.	Stabilise dead wood according to occupancy levels beneath the crown.	10+	C1	RET
14	Ash	13.4	530 490 220	6.8	6.5	5.5	8.2	2.4 - W	2.9	M	F	Multiple stems from near ground level. Crown historically lifted above field margin. Minor ash dieback apparent in upper crown. No basal or stem decay evident	No action required at time of survey	10+	C1	RET

ID No.	Species	Ht.	Dia. (mm)	N	S	W	E	Ht. 1 st br.	Cr. Clr.	Life Stage	Phys. Cond	Structural condition & Notes	Management recommendations	Ret. Span	QV Grade	Proposal
15	Pedunculate oak	14	640	6.2	6	4.8	7	2.5 - W	3.2	M	F	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	40+	B1	RET
16	Pedunculate oak	15.2	660	6.8	6.5	6	7.4	2.1 - SE	3.5	M	F	Upright stem with full healthy crown. Major deadwood in central crown. Crown historically lifted above field margin. No stem or basal decay evident.	Stabilise dead wood according to occupancy levels beneath the crown.	40+	B1	RET
17	Crack willow	17.3	530 510 490	7	6.8	6	7	2.3 - SW	0.2	M	F	Multiple stems from ground level with tight forks where stems meet. Subsiding lower limbs with evidence of partial failures. Crown has been lifted and reduced away to field margin. No stem or basal decay evident	No action required at time of survey	20+	C1	RET
18	Field maple	7	260	3.2	4.4	2.8	3.2	1.7 - SE	0.3	M	F	Ivy covered lower stem and crown. Overgrown former hedgerow tree. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	C1	RET
19	Ash	12.8	280 200 200	3	3.8	4.4	4.5	2.2 - W	3.6	EM	F	Multiple stems from ground level with tight forks where stems meet. Crown lifted above edge of field to N. Minor dieback in upper W crown. No basal or stem decay apparent	No action required at time of survey	10+	C1	REM

ID No.	Species	Ht.	Dia. (mm)	N	S	W	E	Ht. 1 st br.	Cr. Clr.	Life Stage	Phys. Cond	Structural condition & Notes	Management recommendations	Ret. Span	QV Grade	Proposal
20	Ash	16.8	640	6.8	6.5	7	6.8	4.1 - E	4	M	P	Advancing dieback throughout crown with associated major deadwood.	No action required at time of survey	10+	C1	RET
21	Pedunculate oak	14.7	680	3.8	7.7	6.5	6	2.9 - S	3	M	F	Ivy covered lower stem and crown. Constrained crown to N due to adjacent large tree. Major deadwood in lower crown. No observed dieback or disease and no sign of obvious decay	Stabilise dead wood according to occupancy levels beneath the crown.	40+	B1	RET
22	Ash	16.4	820	7.2	6.5	7	3	4.8 - N	3.5	M	P	Ivy covered lower stem and crown. Advanced and widespread dieback throughout crown with associated major deadwood. <i>Inonotus hispidus</i> fungal fruiting bodies on major lower limbs.	Fell to as low as reasonably practicable	<10	U	U
23	Ash	15.2	650	5	6	6.6	5.2	2.7 - S	3	M	P	Ivy covered lower stem and crown. Advanced dieback throughout crown with associated major deadwood. No basal or stem decay apparent	Stabilise dead wood according to occupancy levels beneath the crown.	10+	C1	RET
24	Hawthorn	6.2	230	2.3	2.5	2.6	2.5	2.2 - S	3.2	M	P	Advancing dieback throughout crown, tree almost dead	Fell to as low as reasonably practicable	<10	U	U
25	Pedunculate oak	12.8	600	6.8	7.6	6.6	6	2.7 - S	3.2	M	F	Upright stem with full healthy crown. No apparent significant defect	No action required at time of survey	40+	B1	RET

ID No.	Species	Ht.	Dia. (mm)	N	S	W	E	Ht. 1 st br.	Cr. Clr.	Life Stage	Phys. Cond	Structural condition & Notes	Management recommendations	Ret. Span	QV Grade	Proposal
26	Ash	14	600	3.2	4	4.2	3.6	2.1 - W	2.2	M	F	Very minor dieback in upper crown. No basal or stem decay apparent	No action required at time of survey	20+	B1	RET

Explanatory Notes for Tree groups

- **ID no.:** Unique tree group reference number.
- **Species:** The species identification is based on visual observations and the common English name of what the tree appeared to be is listed. The species listed represent the main components and there may be other minor species not listed.
- **Estimated dimensions:** Estimated dimensions are marked *.
- **Count:** Number of trees recorded within groups. Accurate count for less than 20 trees, estimated number for 20+ trees.
- **Height:** Height is to the nearest metre.
- **Stem diameter(s):** Stem diameter at 1.5m above ground level for 80 percentile member of TG. Trees with larger diameters are identified on the plan at Appendix 3.
- **MRCS:** An estimated mean radial crown spread for trees at the 80 percentile size.
- **Ht 1st branch:** Height above ground in metres of attachment point of first significant branch (cardinal point may be given indicating direction of lowest branch).
- **Crown Clearance:** Height of the crown above ground level at the lowest point.
- **Life Stage:** Assessed as Young, Semi-Mature, Early Mature, Mature, Over Mature and Veteran.
- **Phys. condition:** An assessment of the physiological condition (i.e. health/ vitality) status of the tree summarised into:
Good: Generally in healthy condition

Fair: Condition satisfactory though below mean species performance

Poor: Tree in decline

Dead: Self-explanatory

- **Structural condition & Notes:** Notes on the structural integrity of the tree based on visual tree assessment, including damage, decay fungi, pests, etc as appropriate, plus other pertinent observations
 - **Management recommendations:** Recommendations for intervention (e.g. tree surgery, felling, etc) prior to any development. Immediately hazardous trees will be notified to the client separately.
 - **Ret. Span:** An estimate of the remaining contribution span that the tree or group of trees is expected to have, based on species, condition and context. The following longevity bands are used, categorised accordingly:
 - <10 Tree is dead, dying, has a severe structural defect, or will become exposed following inevitable loss of companion shelter. Possibly requires sanitation felling Unsuitable for retention
 - 10+ Short-term longevity only: replacement planting generally appropriate
 - 20+ Mid-term longevity
 - 40+ Good longevity
 - **QV Grade:** Quality & Value grade classification according to BS5837:2012
 - U - Unsuitable for retention
 - A - High retention priority
 - B - Moderate retention priority
 - C - Low retention priority
- +subcategories 2 & 3 reflecting arboricultural, landscape and cultural values respectively.
- **Proposal:** Preliminary judgement on defensible tree retention / removal balance.
 - RET - Tree groups or woodlands preferably retained
 - PRET - Tree groups or woodlands for partial retention
 - REM - Tree groups or woodlands defensibly removed to facilitate development
 - U - Tree groups or woodlands identified to be unsuitable for retention

Tree Survey Data for Tree Groups

ID No.	Count	Species	Ht.	Dia. (mm)	MCRS	Ht. 1 st br.	Cr. Clr.	Life Stage	Phys. Cond	Structural condition & Notes	Management recommendations	Ret. Span	QV Grade	Proposal
TG1	10	Common alder, pedunculate oak	12	320	4.5	1.2 - E	0.4	M	F	Row of taller trees growing from hedgerow / edge of small stream. No apparent significant defect	No action required at time of survey	20+	B2	RET
TG2	12	Common alder	13	340	5	1.6 - E	2.6	M	F	Row of taller trees growing from hedgerow / edge of small stream. No apparent significant defect	No action required at time of survey	20+	B2	RET
TG3	5	Holly, common alder, goat willow	11	330	4.5	1.8 - N	2.2	M	F	Row of taller trees growing from hedgerow / edge of small stream. Most have multiple stems from ground level. No apparent significant defect	No action required at time of survey	20+	B2	RET
TG4	20	Sycamore, pedunculate oak	13	260	4	1.5 - E	2.5	EM	F	Row of multiple stem trees along far edge of ditch on 3rd party land. No observed dieback or disease and no sign of obvious decay	No action required at time of survey	20+	B2	RET
TG5	2	Pedunculate oak	10	340	4	2.3 - N	3.4	M	F	Pair of overgrown trees in hedgerow. No apparent significant defect	No action required at time of survey	20+	B2	RET
TG6	3	Ash	13	480	5	3.2 - N	2.5	M	P	Advanced ash dieback in all trees with major deadwood present throughout.	Fell to as low as reasonably practicable	<10	U	U

ID No.	Count	Species	Ht.	Dia. (mm)	MCRS	Ht. 1 st br.	Cr. Clr.	Life Stage	Phys. Cond	Structural condition & Notes	Management recommendations	Ret. Span	QV Grade	Proposal
TG7	3	Ash	16	600	6.5	2.1 - N	3.5	M	F	All trees show very start of ash dieback. Major deadwood in all central crowns. No stem or basal decay apparent	Stabilise dead wood according to occupancy levels beneath the crown.	10+	C2	RET
TG8	8	Ash	12	220	3	2.5 - S	3.2	EM	P	Ash dieback advancing through crowns of trees with ivy covered stems.	No action required at time of survey	10+	C2	REM
TG9	6	Ash	11	320	4	2.4 - W	2.8	M	P	Several trees growing from middle of hedgerow all have advancing ash dieback apparent. Ivy covers majority of stems.	No action required at time of survey	10+	C2	RET
TG 10	25	Leyland cypress	8	240	2.5	0.1 - S	0.6	EM	F	Row of trees forming thick hedge-like feature. No observed dieback or disease	No action required at time of survey	20+	C2	RET

Explanatory Notes for Hedges

- **ID no.:** Unique hedge reference number.
- **Species:** The species identification is based on visual observations and the common English name of what the trees appear to be is listed. The species listed represent the main components and there may be other minor species not listed. Unless the composition of species is even an estimate of the percentages of each species is given.
- **Estimated dimensions:** Estimated dimensions are marked *.
- **Height:** Height is to the nearest metre.
- **Mean diameter:** Stem diameter, generally at ground level, for 80-percentile member of the hedge.
- **Mean width:** An estimated mean width for each hedge.
- **Life Stage:** Assessed as Young, Semi-Mature, Early Mature, Mature & Over Mature.
- **Phys. condition:** An assessment of the physiological condition (i.e. health/ vitality) status of the hedge summarised into:
 - Good: Generally in healthy condition
 - Fair: Condition satisfactory though below mean species performance
 - Poor: Tree in decline
 - Dead: Self-explanatory
- **Structural condition & Notes:** Notes on the structural integrity of the hedge based on visual tree assessment, including damage, decay fungi, pests, etc as appropriate, plus other pertinent observations
- **Management recommendations:** Recommendations for intervention (e.g. Trimming, laying, felling, etc) prior to any development.
- **Ret. Span:** An estimate of the remaining contribution span that the hedge is expected to have, based on species, condition and context. The following longevity bands are used, categorized accordingly:
 - <10 Tree is dead, dying, has a severe structural defect, or will become exposed following inevitable loss of companion shelter. Possibly requires sanitation felling. Unsuitable for retention
 - 10+ Short-term longevity only: replacement planting generally appropriate
 - 20+ Mid-term longevity

40+ Good longevity

- **QV Grade:** Quality & Value grade classification according to BS5837: 2012

U - Unsuitable for retention

A - High retention priority

B - Moderate retention priority

C - Low retention priority +subcategories 2 & 3 reflecting arboricultural, landscape and cultural values respectively.

- **Proposal:** Preliminary judgement on defensible tree retention / removal balance.

RET - Hedges preferably retained

PRET - Signifies partial retention

REM - Hedges defensibly removed to facilitate development

U - Hedges identified to be unsuitable for retention

Tree Survey Data for Hedges

ID. No.	Species	Ht.	Mean Dia.	Mean radius	Life Stage	Phys. Cond.	Structural condition & Notes	Management recommendations	Ret. Span	QV Grade	Proposal
H1	Blackthorn, hazel, field maple, holly	4	70	1	M	F	Feature increases in height from 2 to 4m towards E end. Thick healthy foliage throughout with only one small gap along length. Regular management evident. No observed dieback or disease	No action required at time of survey	20+	B2	RET
H2	Hazel, hawthorn, blackthorn, crack willow, pedunculate oak, holly	3.5	90	1.25	M	F	Thick and healthy foliage throughout feature, but variance in height along length. Regular management evident, but not uniformly undertaken. No observed dieback or disease	No action required at time of survey	20+	B2	RET

ID. No.	Species	Ht.	Mean Dia.	Mean radius	Life Stage	Phys. Cond.	Structural condition & Notes	Management recommendations	Ret. Span	QV Grade	Proposal
H3	Hazel, blackthorn, elder, hawthorn, common alder	3.5	90	1.5	M	F	Thick and healthy feature with no sign of dieback or sparse areas. Height varies along length.	No action required at time of survey	20+	B3	RET
H4	Hazel, hawthorn, field maple, holly, blackthorn, pedunculate oak	3.5	80	1	M	F	Thick and healthy feature with no sign of dieback or sparse areas. Height varies along length.	No action required at time of survey	20+	B3	RET
H5	Hawthorn, field maple, hazel	3	80	0.75	M	F	Multiple gaps and sparse areas along short length of hedge, but trees healthy along feature although dominated by ivy at low levels towards E end.	No action required at time of survey	10+	C2	REM
H6	Hawthorn, holly, hazel, blackthorn	1.8	75	0.75	M	F	Thick, healthy, well maintained feature. No observed dieback or disease	No action required at time of survey	20+	B2	RET
H7	Crack willow	6	100	1.5	SM	F	Densely planted barrier strip of relatively young trees forming dense hedge. No observed dieback or disease	No action required at time of survey	20+	C2	RET
H8	Blackthorn, hazel, hawthorn, ash	3.5	85	1.25	M	F	Thick and healthy feature with few significant gaps. Variation in height and width along length. No observed dieback or disease	No action required at time of survey	20+	B2	RET
H9	Hawthorn, blackthorn, elder, holly	2.5	80	0.8	M	F	Thick, healthy, well maintained feature. No observed dieback or disease	No action required at time of survey	20+	B2	RET

APPENDIX 3

TREE CONSTRAINTS PLAN.

Note this plan consists of two sheets and is scaled for printing at A0. It is intended to be read in colour.



Notes
This drawing is intended to be read in colour, a monochrome copy should not be relied upon.
Do not scale from this drawing.
Refer to the tree survey schedule for tree dimensions.
All tree ID numbers marked with an asterisk are plotted indicatively



Client: Richborough Estates
Instruction: Newbold Verdon
Ref: MF/LW/13085
Drawing Title: Tree Constraints Plan Sheet 1
DWG No.: MF/LW/13085.01 S1
Date: 27.10.21
Scale: 1:1000 @ A0

Key
Quality and Value Categories
(Shown adjacent to ID number)

Category U	Unsuitable	
Category A	High	
Category B	Moderate	
Category C	Low	

Crown outlines
Retention rows & groups

To be removed for sound arboricultural management

Deliberately removed to facilitate development

Root protection area (RPA)
calculated in accordance with BS5837 Table 2

Indicative shading arc

Hedges

Midland Forestry Ltd
Easton Hall Farm
Bardon Lane
Hampden-to-Arden
Sothill
RUGBY
Tel: 01757 443 400
e-mail: team@midlandforestry.co.uk



Notes
This drawing is intended to be read in colour; a monochrome copy should not be relied upon.
Do not scale from this drawing.
Refer to the tree survey schedule for tree dimensions.
All tree ID numbers marked with an asterisk are plotted indicatively



Client: Richborough Estates
Instruction: Newbold Vardon
Ref: MF/LW/13085
Drawing Title: Tree Constraints Plan Sheet 2
DWG No.: MF/LW/13085.01 S2
Date: 27.10.21
Scale: 1:1000 @ A0

Key
Quality and Value Categories
(Shown adjacent to ID number)

Category U	Unsuitable
Category A	High
Category B	Moderate
Category C	Low

Crown outlines
Retention trees & groups
To be removed for sound arboricultural management
Deliberately removed to facilitate development
Root protection area (RPA) calculated in accordance with BS5837 Table 2
Indicative shading arc

Hedges
Midland Forestry Ltd
Kilstone Hall Farm
Bardon Lane
Hampden-to-Arden
Sothill
B22 6ER
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