

Tree Survey, Categorisation & Constraints Report
in accordance with
BS 5837:2012 (Survey Phase 4.2, 4.4 & 4.6)

At
Felthorpe House, Caerleon

On the instructions of
Ashley Smith

Dated
January 21st 2026



Inspected by Mr Scott Ambler. Cert. Arb L2, Cert.Arb L4 Diploma student.
Approved by Mr. S J Ambler. Cert.Arb.(RFS), Tech.Arbor.A., Dip.Arb. (RFS), F.ARBOR.A.
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1. INTRODUCTION

I am instructed by Mr. Ashley Smith to undertake an Arboricultural survey at Felthorpe House – Caerleon to assist in the submission of a planning application to the Local Planning Authority.

The survey will be in accordance with the standards set out in BS 5837:2012¹ (items 4.2, 4.4, & 4.6) to gather information to assist the Local Planning Authority in their decision-making process in respect of existing and proposed trees, in the context of design, demolition and construction.

I have been provided with a full technical pack which included but not exclusively, the following information -

- 10338 - xref - topo survey

I understand there is a proposal to redevelop the site, however, the trees have been assessed objectively and without reference to any site layout proposals.

It should be noted that a few trees recorded in the Findings Table were not included in the original topographical survey and their positions as indicated on the Tree Constraints Plan are plotted approximately only.

Trees are a material consideration in the UK planning system, and the survey and report were prepared in consideration of Planning Policy Wales 10 with regard to the general provision, in relation to the value accorded too trees and their protection (contained within paragraphs 6.4.24 – 6.4.27).

- Local authorities have a duty to ensure that adequate provision is made for the planting or preservation of trees by imposing conditions when granting planning permission and/or by making Tree Preservation Orders (TPOs).
- Local authorities have a general power to make TPOs if it appears it is expedient to do so in the interests of amenity. They can make a provisional TPO which takes effect immediately, and it can remain effective for six months or until the TPO is confirmed."

The weather conditions were favourable for a survey of this nature. Surveying was conducted from ground level on the 26th of January 2026.

This visual tree assessment was undertaken by Scott Ambler, our Arboricultural Surveyor who has 18 years' experience in the arboricultural industry. He currently holds the level 2 Diploma in Arboriculture (ABC Awards) acquired through Tree Life, whilst attending the course at Leicester. Scott is currently a Level 4 Student at Myerscough College and has also successfully completed a Visual Tree Assessment course and a Professional Tree Inspectors Certificate (LANTRA). He also has experience in tree surveying and a wide skill set in arboricultural practices. He has gained experience as an assistant surveyor to a Level 6 (ABC) Arborist for the past 7 years.

¹ British Standards Institute Publication 'Trees in Relation to Design, Demolition and Construction - Recommendations' 2012

- a) Level 2 Certificate in Arboriculture (ABC Awards)
- b) Level 4 Certificate in Arboriculture (ABC Awards (Woody vegetation formation and physiology (Principles of tree management.
- c) Visual Tree Assessment course (Lantra Awards).
- d) Professional Tree Inspection Certificate (Lantra Awards)
- e) Numerous City & Guilds Certificates in Tree Surgery related skills.

This survey report is overseen and assessed by Steve Ambler who is a professional arboriculturalist with over 38 years' experience in the arboricultural industry. His Consultancy Practice was established during 1999 and expanded in 2006 with the launch of a specialist tree management unit to become - Steve Ambler & Sons Tree Specialists. Steve holds the following relevant arboricultural qualifications: -

- a) Certificate in Arboriculture (Royal Forestry Society)
- b) Professional Technician in Arboriculture (Arboricultural Association)
- c) Professional Diploma in Arboriculture (Royal Forestry Society)
- d) Fellow Member of the Arboricultural Association.

The provision and acceptance of this report are subject to the general terms and conditions of Steve Ambler & Sons Tree Specialists Ltd

Unless otherwise stated, this Report remains valid for 12 months. Trees require frequent inspections and the next one is recommended within 12 months of the date of this Report.

2. SITE DESCRIPTION AND OBSERVATIONS

The site is located centrally in the South Wales historic town of Caerleon, which sits above the Afon Llwyd to the east and Afon Wsyg to the south.

The site lies at an altitude of approximately 20-40-m above sea level and primarily slopes eastwards. Whilst soil tests have not been undertaken, the area is thought to have free draining and slightly acid loamy soil over primarily sandstone.

A **Tree Preservation Order** provides legal protection for certain trees and groups on site, and these are held in high regard by the Local Planning Authority.

TPO 5 of 2016 was made on the 18th of January 2017 and was confirmed with no objections 27th February 2017 - *TPO 5/2016 protects 37 individual trees, a group of 23 trees and a woodland.*

NOTE - Where trees have been recorded individually within the Tree Survey there is on occasion some uncertainty as to whether or not they may be included within a protected (TPO) group or woodland. The client is advised to consult with the Local Planning Authority for confirmation when considering trees protected under the Tree Preservation Order. Any felling or remedial works on trees subject to a Tree Preservation Order must have written approval from the Local Planning Authority either through the TPO Works Application process or Full Planning Permission that accepts the recommendations of this report. The exception are those

trees considered to be in a dangerous condition that are deemed exempt under the 'dead, dying or dangerous' clause, whereupon 5 days written notice should be given prior to works commencing.

The site comprises of a diverse age range and species mix of trees, groups, and hedges (both formal and informal) in the following retention categories:-

There was one category A tree recorded on the site.

The majority of category B trees are larger, more prominent specimens in good condition, or groups which have the potential to provide screening of views into or out of the site (or between parts of it).

There are a number of sections where conifers have been planted in rows (two or more) and these need to be carefully considered with regards to the issues relating to light levels and main dwelling rooms within the proposed housing areas. This matter is regulated under the Anti-Social Behaviour Act 2003, Part 8 - High Hedges.

The remaining trees are not considered to be of any particular arboricultural or visual merit; are below the threshold of 75-mm diameter when measured at 1.5 metres above ground level or are in poor condition and have been allocated a retention category of C or U. Due to a history of planting operations on this site there are a number of young trees that fall outside of the criteria set within BS5837, but which could offer long term tree cover if they did not pose significant constraints to the site layout. These younger trees, along with areas of ornamental shrub planting are labelled on the Tree Constraints Plan but are not included within the Findings Table.

A number of stumps were noted, and these are indicated on the attached Tree Constraints Plan.

NOTE- Category C trees are of little merit and need not necessarily be a significant constraint on the site's potential as their loss may be mitigated through planting.

3. SPECIES RECORDED

Ash (<i>Fraxinus excelsior</i>)	Holly (inc. variegated varieties) - (<i>Ilex aquifolium</i> var)
Beech (<i>Fagus sylvatica</i>)	Lawson Cypress (<i>Chamaecyparis lawsoniana</i>)
Cherry laurel (<i>Prunus laurocerasus</i>)	Pear
Downy birch (<i>Betula pubescens</i>)	Pedunculate Oak (<i>Quercus patraea</i>)
Goat willow (<i>Salix caprea</i>)	Red Oak (<i>Quercus rubra</i>)
Hazel (<i>Corylus avellane</i>)	Walnut (<i>Juglans regia</i>)
Himalayan honeysuckle (<i>Leycesteria formosa</i>)	
Yew (<i>Taxus baccata</i>)	

4. TREE SURVEY & TREE SURVEY PLAN

This tree survey will include each tree within the site boundary with a stem diameter of above 75-mm or in the case of woodland trees or large groups those measuring above 150-mm when measured at a height of 1.5-m above ground level. Trees over this size growing on land adjacent to the site, which are within a distance equal to 12 times their stem diameter from the boundary, are also included.

Each tree or group of trees is identified on the attached plan. Large trees are sometimes identified on site using a numbered tag attached to the trunk of each tree at 1.5-2.0 metres above ground level. A tabular format later in the report (8. Schedule of Findings) records baseline details of each tree or group against the appointed tree number or numbered tag.

The report assigns the trees to one of four categories U, A, B, C (see Appendix A - Table One) depending on their overall health, size, condition, amenity, cultural and conservation value, their suitability in view of the increased usage that will arise following development. For trees in categories A to C, it should qualify under one or more of the three subcategories (1, 2, 3). Subcategories 1, 2, and 3 are intended to reflect arboricultural and landscape qualities, and cultural values, respectively. This system will also identify any unsuitable trees and suggest removal where necessary.

Where trees are found to require immediate attention, they will be identified in red bold text in the schedule of findings

Particular care is needed when considering the quality and value of C grade and young trees, especially where they occur as individual specimens and should not dominate site layout considerations.

The reference numbers of the surveyed trees are included in the survey schedule and shown on the Tree Constraints Plan (TCP) which should be read in accordance with this report.

Trunk diameters are measured at 1.5 metres above ground level and rounded to the nearest 25 millimetres.

Trunk diameters, accessible crown spreads, tree heights and height of the lower crowns above ground level were all estimated.

The proposed development site boundary is identified by plan and is hereafter referred to as 'the site'.

In all cases where a tree's position may be critical (e.g. in accurately determining clearances between a tree and a proposed structure) all dimensions should be checked on site.

5. TREE CONSTRAINTS PLAN

A Tree Constraints Plan accompanies this report and identifies a 'Root Protection Area' (RPA) for each tree or group of trees surveyed. The RPA is in effect a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain tree viability, and in which the protection of the roots and soil structure is treated as a priority. Where a tree is to be retained, its RPA should

be respected from the initial design period and throughout the demolition works until completion of the build. The necessary RPA distances are found in Table D1 of the British Standards¹

The RPA is marked on the Tree Constraints Plan as a solid line and reflects a radial distance when measured from the centre of the tree's trunk shown as a circle, centred upon the trunk of the tree, to enclose an area equal to the required RPA. This measurement is replicated within the end column of the Findings and again in tabular format and appears in the Tree Constraints Plan.

In practice, the distribution of roots may frequently prove to be uneven due to the presence of a variety of constraining influences. These may be physical barriers such as existing foundations etc., or the existence of localised soil conditions inhospitable to root growth, such as water logging or soil compaction. Conversely, soil conditions may be particularly conducive to root development in one quarter, and this might lead to an asymmetric distribution of roots around the tree. However, in most cases the nominal circular areas as indicated will provide a reasonable guide as to where special protection is needed.

Where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, a polygon of equivalent area will be produced on the TCP to represent this. Modifications to the shape of the RPA will reflect a soundly based arboricultural assessment of likely root distribution.

Proposed new planting may be marked on the plan as a constraint and soil should be protected from compaction where this is to occur.

Trees will be coloured according to their category and the following will apply. **See Appendix 1 ...Tree Quality Assessment**

- U - Dark red
- A - Light green
- B - Mid blue
- C - Grey

6. RECOMMENDATIONS

Consider removal of tree 20 to provide space for this tree's crown to develop

G12 Prune leaders to promote dense lower growth. Remove adjoining shrubs to improve light levels.

G14 Consider removal and replacement with better performing trees more suitable to a development.

T28 Reduce crown by 3-m distally.

G15 Monitor structural issues annually, if retained.

Efforts should be made to retain category A and B trees

C category trees may be retained if desired although not need necessarily be a significant constraint on the site's potential.

Category U trees should be removed as part of any site development and evaluated through a site risk assessment in the sites existing current situation.

Design and layout should take account of existing trees of importance and consider their requirements to maintain existing landscape value where possible. The site layout should ensure construction activity is outside the RPA of any retained trees. Recommended minimum RPA radii are shown in the final column of the survey schedule and diagrammatically as circles on the TCP.

In view of the recommendations for the design and construction process, in considering tree care (Figure 1, Appendix A), further assessments are required throughout the planning and design phase and recommended as follows...

- (1) **Arboricultural Implications Assessment (AIA)**
- (2) **Tree Protection Plan (TPP),**
- (3) **Arboricultural Method Statement (AMS)** which should be undertaken by an 'Arboriculturalist' .

Tree clearance works or works other than those to deal with serious defects posing considerable risk shall not commence until such time written approval or full planning approval is received from the Local Planning Authority. Any authorised tree works should be completed prior to the onset of any demolition or construction works, taking account of all legal constraints.

Trees require regular inspections, once the development is complete all the retained trees should be re-examined by an arboricultural specialist.

Where the installation of paths or lightweight structures such as walls are unavoidable near to trees, the design and construction specification needs to take account of future growth. Refer to Table A of the Standard.

Shading of buildings by trees can be a problem, particularly where there are rooms which require natural light. Buildings will need to be positioned further away than just the outer edge of tree canopies in order to reduce the likelihood of pressure from future occupiers for tree removal or trimming. This applies particularly where windows of habitable rooms will face onto tree canopies. Future dimensions of immature trees and shadow patterns should also be taken into account. A minimum of 2-m should be allowed between buildings and the outer edge of fully-grown canopies to allow for building maintenance and the erection of scaffolding etc.

Proposed buildings should be designed to take account of existing trees that are to be retained, their ultimate size and density of foliage, and the effect that these will have on the availability of light. Where sufficient distances (including allowances for future growth) cannot be achieved, the removal of C category trees should be considered. Larger trees are unlikely to increase greatly in height or spread. Older trees are particularly sensitive to root disturbance and are best retained within open space where they can be managed for optimum health, amenity value, and safety, rather than within private spaces.

All trees being retained must be protected by barriers and/or ground protection before

- Site activity except for tree clearance

- Materials or machinery are brought onto site
- Demolition
- Stripping of soil

Where all activity can be excluded from the RPA, vertical barriers should be erected to create a construction exclusion zone. Where construction activity cannot be fully or permanently excluded in this manner from all or part of a tree's RPA, appropriate ground protection should be installed (see 6.2.2 and Figure 2 of the standard) working under the guidance of an approved AMS and the supervision of the Project Arborist.

The default specification should consist of a vertical and horizontal scaffold framework, well braced to resist impacts, as illustrated in Figure 2 in the Appendices. The vertical tubes should be spaced at a maximum interval of 3 metres and driven securely into the ground. Onto this framework, welded mesh panels should be securely fixed. Care should be exercised when locating the vertical poles to avoid underground services and, in the case of the bracing poles, to avoid contact with structural roots. If the presence of underground services precludes the use of driven poles, an alternative specification should be prepared in conjunction with the project arboriculturist that provides an equal level of protection. Such alternatives could include the attachment of the panels to a free-standing scaffold support framework.

In order to prevent damage to the trees, including their roots, within the fenced area (RPA) there should be no...

- Alteration of ground levels, including soil stripping and digging.
- Installation of drainage or services using conventional open trenching methods which would not be in accordance with BS: 5837. (Any works should be in accordance with the National Joint Utilities NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees Volume 4)
- Excavation (there are exceptions when covered by an approved² Arboricultural Method Statement)
- Storage of any materials or equipment, even on a temporary basis.
- Storage of oil, bitumen, cement or other harmful materials, mixed or discharged within 12-m of the trunk of any retained tree and making further allowances for any slope of the ground to prevent running contamination. Phytotoxic materials would include any mineral oil, fuels, cement mortar washings concrete washings, mortar.
- Fires must not be lit beneath or within 12-m of any tree canopies.
- Site operations such as deliveries, site machines, crane jibs etc should be organised to avoid damaging the trunk or crown of trees. Where this conflict is unavoidable then facilitation pruning should be carried out in advance, rather than after damage has occurred. This may also be required to allow demolition operations.
- Mechanical cultivation of the soil as part of landscaping operations.

Tree felling and surgery may be required to allow access for construction or future site traffic, or in the interests of the future health and safety. Detailed recommendations for such works can be provided once a final site

² Approved by the Local Planning Authority



layout is agreed and it is determined which trees (if any) are to be retained. All surgery should comply with the British Standards 3998:2010 Tree Work Recommendations or more recently accepted arboricultural good practice. The legal position regarding site designations should be considered.

7. SCHEDULE OF FINDINGS

Tree Number	Tree Tag	Species	Height (M)	Effectual Diameter (mm)	Branch Spread N S E W				1st Significant Branch	Canopy Clearance	Life stage	General Observations	Preliminary Management Recommendations	Remaining Contribution (years)	Retention Category	Root Protection Area (M2)	Root Protection Radius (M)
20	1383	Downy Birch (<i>Betula pubescens</i>)	16	230	4	3	4	3	4	3	EM	Remaining stem of two formed from ground level, of reasonable form.	None	20-40	C 2,3	23	2.70
21	1385	Beech (<i>Fagus sylvatica</i>)	14	230	2	3	2	4	5	4	Y/EM	Tree of reasonable form.	Consider removal of tree 20 to provide space for this tree' s crown to develop	40+	B 1,3	10	2.70
G10	NA	Lawson Cypress (<i>Cupressus</i>) Felled															
22	1386	Holly (<i>Ilex aquifolium</i>)	10	275	4	5	4	6	4	2	EM/ M	Tree of reasonable form, with a bifurcated stem at 1-m AGL.	None	40+	B 2,3	34	3.30
22a	971	Goat Willow (<i>Salix caprea</i>)	10	250	2	3	1	4	3	4	EM	Undesirable tree. Epicormic growth with stems becoming large.	None	20-	C 2,3		3.00
G11	NA	Goat willow, cherry laurel, Himalayan honeysuckle, hazel Felled															

Tree Number	Tree Tag	Species	Height (M)	Effectual Diameter (mm)	Branch Spread N S E W				1st Significant Branch	Canopy Clearance	Life stage	General Observations	Preliminary Management Recommendations	Remaining Contribution (years)	Retention Category	Root Protection Area (M2)	Root Protection Radius (M)
G12	NA	Yew (<i>Taxus baccata</i>)	2	75	1	1	1	1	0	0	Y	Young hedge along roadside boundary. Has potential, but could also be easily replaced through mitigation planting	Prune leaders to promote dense lower growth. Remove adjoining shrubs to improve light levels.	40+	C 2,3	3	0.90
23		Pear Felled															
24	471	Pedunculate oak (<i>Quercus patraea</i>)	15	550	6	9	8	6	3	1	EM	Protected by Tree Preservation Order. Long lived species of good form near frontage. No root-plate to the south due to a boundary wall which abuts a public footpath 2-metres below the height of the wall. The restriction on the roadside of the Oak tree amounts to around 40%. Therefore 40% should be awarded in another direction. So, if the tree has an RPA of 6.6 metres the sum is $6.6 \times 0.4 = 2.64$. Add 2.6 to 6.6 = 9.2 metres.	None	40+	A 2,3	102	9.20

Tree Number	Tree Tag	Species	Height (M)	Effectual Diameter (mm)	Branch Spread N S E W				1st Significant Branch	Canopy Clearance	Life stage	General Observations	Preliminary Management Recommendations	Remaining Contribution (years)	Retention Category	Root Protection Area (M2)	Root Protection Radius (M)
												This is based on the 20% rule where it states if we reduce the RPA by 20% on one side, we must award 20% or equivalent elsewhere. Refer to Photograph 4, in Appendices					
25		Lawson cypress felled															
G13	NA	Ash, Lawson cypress with juvenile foliage, variegated holly, Wilson's honeysuckle, hazel, holly Ash felled	11	150	4	4	4	4	2	2	Y/EM	Unremarkable group located near frontage to road and lodge.		20-40	C 2,3	10	1.80
26		Pear felled															
27		Holly felled															

Tree Number	Tree Tag	Species	Height (M)	Effectual Diameter (mm)	Branch Spread N S E W				1st Significant Branch	Canopy Clearance	Life stage	General Observations	Preliminary Management Recommendations	Remaining Contribution (years)	Retention Category	Root Protection Area (M2)	Root Protection Radius (M)
G14	NA	Lawson cypress	14	300 500 large st	5	6	2	4	0	0	EM/ M	Row of conifers close to south boundary. Consider issues in relation to High Hedges Regulations. Condition issues include incipient stem failure, decaying pruning wounds & compression forks. These trees have been poorly reduced 'topped' , at some stage in the past. Have been topped again	Consider removal and replacement with better performing trees more suitable to a development.	20-40	C 2	41	600
28	1392	Red Oak (<i>Quercus rubra</i>)	16	250	1	7	10	5	5	5	EM/ M	Twin stemmed specimen leaning with an asymmetric crown, predisposed to the south and road.	Reduce crown by 3-m distally	40+	C 2	23	3.00
29	1391	Red Oak (<i>Quercus rubra</i>)	16	300	5	7	9	7	4	2	EM/ M	Twin stemmed specimen of reasonable form.	None	40+	B 2	34	3.60
G15	475	Lawson Cypress (<i>Cupressus</i>)	20	525	9	4	6	7	2	1	M	Multi-stemmed specimens of average form located on low mound. Consider issues in relation to High Hedges Regulations. Several compression forks present.	Monitor structural issues annually, if retained	20-40	B 2	125	6.30
38	1398	Common walnut felled															

8. LEGAL CONSTRAINTS

With regards trees, the legal constraints on any site should be considered early on in the planning process and well before any work commences on site. Such constraints may cause time delays and should be given full consideration from the outset. The legal constraints here are general constraints that relate to arboriculture only and do not cover any other legal matters that may be relevant on this site.

Tree Preservation Orders and Conservation Area Status in Wales

In Wales, the law on TPOs is in Part V111 of the Town and Country Planning Act 1990 Town and Country Planning (Trees) Regulations 1999. When any tree/s are protected by a TPO or are situated within a Conservation Area, it is an offence (1) cut down (2) uproot (3) top (4) lop (5) wilfully damage or (6) wilfully destruct a tree without the express written permission from the Local Planning Authority (LPA), there are exceptions. An LPA may grant permission, if considered reasonable following the submission of an application for consent to undertake the works, or where in accordance with an Approved Planning Application or under the exemptions within the Town and Country Planning Act 1990 of dead, dying, or dangerous. It is advisable to consult the LPA and an Arborist prior to conducting any tree works under these exemptions.

Felling License

A Felling Licence is required in certain felling operations which are administered by the Forestry Commission where more than five cubic metres of wood are felled in one calendar quarter and when selling more than two cubic metres. There are exceptions, and these are in the Forestry Act 1967 and Regulations made under this Act. Contravention of the felling licence controls can incur substantial penalties. Tree felling forming part of a Local Authority Planning Approval is exempt.

The Wildlife and Countryside Act 1981 protects nesting birds and to disturb nesting birds can be a criminal offence. Therefore, caution must be aired if tree works are programmed during the nesting season, between March and August. Should nesting birds be present then all but essential works will be postponed. If in undertaking essential works a nest or nests are found to be present, then further advice will be sought from the Countryside Council for Wales.

Bats...Summary of Current Relevant Legislation

There are some 17 species of bat which are known to breed in the British Isles, all are insectivorous and depend to some extent on habitat in which trees are a significant element. Bats are a protected species and are in decline both globally and nationally. Therefore, they are to be fully considered before any tree work commences and particularly if the trees are mature. If a bat roost is known to be in any tree that is to be removed or worked on, a license must be obtained from the Welsh Government beforehand.

The European Habitats Directive (passed in 1992) provides the principal legal protection for bats in the UK and this is currently enacted into British legislation through the Conservation of Habitats and Species Regulations 2010 in England and Wales; the Conservation (Natural Habitats &c) Amendment (No. 2) (Scotland) Regulations 2009 in Scotland; and the Conservation (Natural Habitats &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland. These regulations relate to all animals which are identified as European Protected Species (EPS) which includes all bat species.

The different countries of the UK have domestic legislation which also provides protection (by varying degrees) to bats; however, this has largely been superseded by the Regulations specified above.

Under the Regulations it is illegal to:

- kill, injure or capture a bat
- disturb bats
- damage or destroy a bat's breeding site or resting place (roost)
- possess a bat (live or dead) or offer one for sale or exchange.

This is a simplified summary of the legal position relating to bats and is intended for guidance purposes only. If further assistance is required, the primary legislation should be referred to or legal advice sought.

The legislation makes it an offence to intentionally or recklessly damage, destroy or obstruct access to a site used by bats whether bats are present at the time or not. This can include work on trees whether it is surgery, felling, the covering, or filling of cavities or the installation of rod braces and flexible cable braces, where a bat roost is present.

Where there is a risk bat roosts may be present, it is incumbent upon the owner or manager to commission a specialist bat survey to identify bat roosts before instructing tree surgery to commence. Failure to do so and in the event of disturbing a roost site or injuring any bats is an offence. Maximum penalties for committing offences relating to bats or their roosts can amount to imprisonment for a term not exceeding six months or to fines of up to Level 5 on the standard scale under the Criminal Justice Act 1982/ 1991 (i.e. £5000 in April 2001) per roost or bat disturbed or killed, or to both.

Statute and Common Law.

A landowner or land manager should be aware that both statute and common law dictates that regular inspections of trees on land in their control are necessary where such trees could cause injury or damage in the event they should fall or shed any parts. The part of the statute law that relates to this responsibility is governed by the Occupiers' Liability Act (1957 & 1984) in the case of England and Wales and most prosecutions are brought under this heading. In addition, a landowner has a "Duty of Care" see court case reference...British Road Services v Slater & Another [1964] Vol. 1, Weekly Law report 493-497

A person suitably qualified in arboriculture should undertake such routine inspections and any remedial tree works recommended should be carried out within the time constraints specified, to prevent injury or damage occurring. A landowner should retain records of all inspections and any remedial tree works that have resulted from such inspections. Arboricultural Association, the Malthouse, Stroud Green, Standish, Stonehouse, Gloucestershire, GL10 3DL. Telephone 01242 522152 are able to provide advice on suitably qualified persons or indeed suitable qualifications a person should hold to undertake qualified inspections.

9. LIMITATIONS OF THIS REPORT

It must be stressed that this report is a pre-development survey and not a risk assessment or a detailed report on the health and condition of the trees. Whilst any obvious problems noted during this ground level inspection may be noted, general comments are made based on a somewhat cursory, visual inspection. In addition, future management may receive a mention or be briefly discussed but such comments are general comments only, for basic information, which should not be taken to form immediate or long-term management plans nor do they replace the need for having professional management plans for groups, areas or woodlands.

Trees are living dynamic organisms which can be affected by external environmental conditions and very occasionally internal biological symptoms that are not visible, causing failure without warning. It is therefore not possible to state with any certainty that any tree is completely safe. There are occasions when even healthy and completely defect-free trees break or become windblown. This represents a "normal failure rate" which is the price of the lightweight, energy-saving structure that favours the species to compete with others in a cost-effective way.

Every attempt has been made to provide a realistic and accurate assessment of trees and their condition at the time of this inspection. No responsibility can be accepted for damage or injury as a result of the failure of any tree or its parts due to faults not apparent upon a visual inspection carried out at this season, or for faults developing subsequent to the survey. Similarly, no liability can be accepted for the condition of the trees that are obscured in part or by whole (e.g. due to dense ivy or other foliage), nor for any that proved inaccessible to the inspector. Certain features which might provide evidence of ongoing decay or decline (Such as seasonal fruiting bodies, damage to foliage, insect emergence holes etc.) may not be in evidence. Only those features present at the time of inspection could be assessed.

This report is based on the tree's circumstances and condition at the time of the survey. It must be recognised that the circumstances may be altered radically over the course of any development process and that such changes cannot be accurately predicted. The report also does not provide any specific long-term management recommendations.

The effect this new development may have on localised wind turbulence has not been assessed during this inspection. As trees grow, they respond and mechanically adapt to their surroundings and exposure limits. With the erection of dwellings in close proximity to existing trees, new turbulence is created. The author accepts no liabilities to any failure subsequent upon such new imposed, artificial conditions.

Unless stated in writing, the inspection shall not include any underground parts of the tree. It does not consider **indirect** damage resulting from the extraction of moisture from shrinkable clay soils by tree roots causing **subsidence** or by **heave** occurring through soil rewetting following removal of trees on this site. Such problems are almost entirely restricted to areas of shrinkable clay soils and as I have **not** considered a soil analysis as part of my present brief, this aspect is **not** addressed at this time.

Unless otherwise stated in writing and in the absence of altered circumstances, a report on the health and safety of a tree or trees cannot be relied on after a period of 12 months. Following such a period, a further inspection is required.

Soil testing to ascertain the plasticity index or shrinkable characteristics of the soil on the development site to provide information in relation to the likelihood of building damage caused by tree related subsidence or heave where trees are within influencing distance has not been carried out. The author cannot be held liable for building damage as a result. A soil analysis can be provided if requested.

Further and more general report limitations are set out in the authors Terms and Conditions and copies are available upon request

10. TERMS AND DEFINITIONS

Number (No.) a tree number is allocated to each tree or group and provides reference to an individual. It will occur either by way of a T-number T1, T2 etc. or a series of numbers e.g. 00123 that relates to an identification tag attached to the stem of each tree. Such numbers will occur on the Tree Constraints Plan.

Species The species is the given name of the tree which is usually provided in both the common and scientific names.

Diameter (DBH) The trunk diameter for each tree is measured in millimetres at a height of approximately 1.5 metres above ground level, unless otherwise stated. All measurements are approximate.

Crown Spread The crown spread is measured as the radius from the centre of the trunk in meters and in most cases is approximate covering the four points of the compass.

Height The height of the tree is measured in metres and is usually approximate. If the abbreviation 'Clinom' appears after the given measurement, it indicates the tree has been measured with an optical measuring instrument, a Clinometer, and is accurate to within 5 metres.

Life Stage The age of the tree is given based on its life expectancy. For example, an oak tree at an age of 100-years is perceived as early mature when a hawthorn at 100 years would be considered old. Age classes are given as follows: -

Y.	Young trees (recently planted or saplings under 15 years old)
SM.	Semi mature (around 1/3 their life expectancy, still growing vigorously but not as fast as a younger tree)
EM	Early Mature (between 1/3 – 2/3 life expectancy still growing reasonably vigorously)
M.	Mature trees (above 2/3 life expectancy. Growth rates beginning to slow down at this stage)
OM.	Over Mature trees (growth rates slow and possibly beginning to display signs of decline)
V.	Veteran (decline is well set-in, but the tree may be of specific ecological value. The tree is likely to contain sufficient deadwood and decay that is a special habitat for many rare invertebrates that are considered to be at risk from extinction)

Recommendations The recommendations give the appropriate action required for the trees or groups of trees to fulfil the brief, which possibly include reducing the most blatant foreseeable risk or improve the physiology of the tree.

Target Rating

Target rating is used to consider how likely a mobile or stationary target will be present at any one moment in time, within proximity to the tree under investigation. It is often approximated after a short period on site and often with little knowledge of the site. Unless otherwise stated, no information on visitor or vehicle numbers have been provided by the client and this assessment is based on a small 'snap-shot in time', the client should consider this assessment and where it is not considered accurate, should make the Author aware immediately and certainly within 7 days of issue of the Report.

Low Target Occupancy (occasional use)

Infrequently used footpaths, isolated car parks, desire lines (permissive and non-permissive paths) through woodlands, open spaces without particular features or attractions, (such as picnic benches), and difficult to access areas due to undergrowth, perhaps the occasional jogger, dog walker or cyclist could be expected during day light and reasonable weather conditions.

Medium Target Occupancy (Intermittent use)

Target not present for any length of time i.e. low use car parks, footpaths in countryside, parkland open during normal working hours and access roadways. No stationary targets and could normally be expected during day light and reasonable weather conditions.

High Target Occupancy (Frequent use)

Target not present for 24 hours but a frequently used site such as - day use car parks, B-Class and minor roads, footpaths in towns and cities, offices operating normal working hours, excluding weekends, access roadways to a facility. Target maybe stationary for short periods of time.

Very High Target Occupancy (Constant use)

Where persons are present at all times such as a hospital building and car park, A-class roads, railways, dual carriageways, motorways and residential properties where vehicles or persons are expected during any time day or night.

Priority Coding is provided to relay the urgency in which any recommended work is required based on the hazard presented by the tree and the considered target occupancy. Whilst it highlights the most urgent works to help offset risk, it may also be helpful for budgeting purposes.

Priority 1	Top priority; to be undertaken as soon as it is practicable for reasons of offsetting foreseeable risk, injury or damage and where the likelihood of it occurring is considered high. Action should be taken diligently
Priority 2	Medium priority; attention strongly advised at your earliest convenience to deal with a problem that whilst is not as serious as priority one, carries significant concern and liability. In any event, works should be completed within 6 months.

Priority 3	Low Priority; the work is advised but of a lower priority than above which should be carried out before a period of 12 months' lapses.
Priority 4	Minor Problems representing no immediate hazard at the time of inspection although potential for harm or hazard to develop as the tree grows or faults developing that may become significant at a later date if left to develop. Works without any immediate urgency, possibly to rectify a minor fault or to abate a nuisance present or developing.

Root Protection Area this is a protection area established for around the base of each tree to prevent physical, chemical or compaction damage occurring. This is usually achieved through the erection of fencing or other barriers.

Construction Exclusion Zone this is an area established where construction is not permitted and usually correlates to the Root Protection Area.

Special Precaution Area this is an area, usually within the root protection area, where construction or other activity may be permitted but only under the direction of an 'Arboricultural Method Statement' and the supervision of an Arborist.

- *All measurements given are approximate.*
- *AGL: an abbreviation for above ground level.*

11. GLOSSARY OF TERMS

Adaptive Growth; in tree biomechanics, the process whereby wood formation is influenced both in quality and in quantity by the action of gravitational force and mechanical stresses on the cambial zone (THIS HELPS TO MAINTAIN A UNIFORM DISTRIBUTION OF MECHANICAL STRESS)

Adventitious; Latent or dormant bud on stem or root often invisible until stimulated into growth which occurs from an unusual place i.e. not a twig, leaf or bud.

Anchorage; in trees, the holding of the root system within the soil, involving the flow of forces from the stem through the branches of the root system to the cohesive root/soil interface.

Architecture; in a tree, a term describing the pattern of branching of the crown or root system.

Assessment; in relation to tree hazards, the process of estimating the risk which a tree or group of trees poses to persons or property (THIS INVOLVES A VISUAL INSPECTION FOR DEFECTS AND CONTRIBUTORY SITE FACTORS, AND SOMETIMES ALSO A DETAILED INVESTIGATION OF SUSPECTED DEFECTS)

Assym; This abbreviation means...asymmetric...and refers to the tree having an asymmetric or unbalanced crown. This is usually preceded by a measurement in metres which provides the extent of crown asymmetry and is measured from the centre of the trunk. It may also have a correlation to the lever arm

Arboriculturalist; person who has, through relevant education, training and experience, gained recognised qualifications and expertise in the management of trees generally and in relation to construction.

Architecture; in a tree, a term describing the pattern of branching of the crown or root system.

Arboricultural Implication Assessment (AIA) study, undertaken by an arboriculturalist, to identify, evaluate and possibly mitigate the extent of direct and indirect impact on existing trees that may arise as a result of the implementation of the site layout.

Arboricultural Method Statement; methodology for the implementation of any aspects of development that has the potential to result in loss of or damage to a tree.

Assessment; in relation to tree hazards, the process of estimating the risk which a tree or group of trees poses to persons or property (THIS INVOLVES A VISUAL INSPECTION FOR DEFECTS AND CONTRIBUTORY SITE FACTORS, AND SOMETIMES ALSO A DETAILED INVESTIGATION OF SUSPECTED DEFECTS)

Bole (trunk); the main stem of a tree below its first major branch

Branch; a limb extending from the main stem or parent branch of a tree

Canopy; the topmost layer of twigs and foliage in a woodland, tree or group of trees

Construction Exclusion Zone; area based on the RPA (meters as a radial measurement and sometimes a m²), identified by an Arboriculturalist, to be protected during development, including demolition and construction work, by use of barriers and/or ground protection fit for the purpose to ensure the successful long-term retention of a tree.

Crown; in arboriculture the main foliage-bearing portion of a tree containing the leaves and branches

Defect; in relation to tree hazards, any feature of a tree that detracts from the uniform distribution of mechanical stress, or which makes the tree mechanically unsuited to its environment.

Dysfunction; in woody tissues, the loss of physiological function, especially water conduction.

Failure; in connection with tree hazards, a partial or total fracture within woody tissues or loss of cohesion between roots and soil. (IN TOTAL FAILURE, THE AFFECTED PART SNAPS OR TEARS AWAY COMPLETELY. IN PARTIAL FAILURE, THERE IS A CRACK OR DEFORMATION WHICH RESULTS IN AN ALTERED DISTRIBUTION OF MECHANICAL STRESS)

Group; the term 'group' is intended to identify trees that form cohesive arboricultural features either **aerodynamically** (e.g. trees that provide companion shelter), **visually** (e.g. avenues or screens) or **culturally** including for biodiversity (e.g. parkland or wood pasture).

Heave; in relation to a shrinkable clay soil, expansion due to re-wetting, sometimes after the felling or root severance of a tree which was previously extracting moisture from the deeper layers; also, in relation to root growth, the lifting of pavements and other structures by radial expansion; also, in relation to tree stability, the lifting of one side of a wind-rocked root plate.

Leader; in a tree, a topmost shoot that has apical dominance.

Preventive action; in a tree hazard management, action that helps to prevent injury to persons or damage to property.

Pruning; the removal or cutting back of twigs, branches or roots; in some contexts, applying only to twigs or small branches only, but more often used to describe all kinds of work involving cutting.

Retained Tree; a tree that has been considered suitable by an Arborist for retention and which during the design stage is selected for retention and incorporated within the development.

Risk: the likelihood of the potential harm from a particular hazard becoming actual harm.

Root Protection Area (RPA): layout design tool indicating the area surrounding a tree that contains sufficient rooting volume to ensure the survival of the tree, shown in plan form in m²

Soil heave: *see* heave

Subsidence: in relation to soil or structures resting in or on soil, a sinking due to shrinkage when clay soils dry out, sometimes due to extraction of moisture by tree roots.

Subsidence: in relation to branches of trees, a term that can be used to describe a progressive downward bending due to increasing weight.

Targets: in a tree hazard assessment (and with somewhat incorrect terminology), persons or property or other things of value, which might be harmed by mechanical failure of the tree or by objects falling from it.

Tree: a woody plant, which typically has a single main stem and, in maturity, attains a height of at least four metres and a stem diameter at breast height of at least 75-mm.

Tree Constraint Plan (TCP): plan prepared by an Arboriculturalist for the purpose of layout design showing the RPA and representing the effect that the mature height and spread of retained trees will have on layouts through shade dominance, etc.

Tree Preservation Order: in Great Britain, an order made by a local authority, whereby the authority's consent is generally required for the cutting down, topping or lopping of specified trees.

Tree Protection Plan: scale drawing prepared by an arboriculturalist showing the final layout proposals, tree retention and tree and landscape protection measures detailed within the arboricultural method statement (AMS), which can be shown graphically.

Trunk: the single main stem of a tree.

Vigour: in tree assessment, an overall measure of the rate of shoot production, shoot extension or diameter growth (*cf.* vitality)

Visual Tree Assessment (VTA): in addition to the literal meaning, a system expounded by Mattheck & Breloer (1995) to aid the diagnosis of potential defects through visual signs and the application of mechanical criteria.

Wind exposure: the degree to which a tree or other object is exposed to wind, with regard both to duration and velocity.

Wind pressure: the force exerted by wind on a tree or other object.

Wind snap: the breaking of a tree stem by wind.

Windthrow: the blowing over of a tree at its roots.

12. REFERENCES

- British Standard 5837: 2012 Trees in Relation to Design, Demolition and Construction - Recommendations Arboricultural Association, Guidance Note 10, Protected Species and Arboriculture
- British Standard Recommendations for Tree Work BS 3998; 2010
- Lonsdale D. Principles of Tree Hazard Assessment and Management.
- Mattheck C. & Breloer H. The Body Language of Trees Department of the Environment.
- Brown G.E. Kirkham. T. The Pruning of Trees, Shrubs & Conifers. Timber Press 2nd Edition.

13. APPENDICES

APPENDIX A - TABLE 1 TREE QUALITY ASSESSMENT

APPENDIX B - DEFAULT SPECIFICATION FOR PROTECTIVE BARRIER

APPENDIX C - TABLE B1- TREES AND THE PLANNING SYSTEM

APPENDIX D – PHOTOGRAPHS

APPENDIX E – RESISTPGRAPH TEST RESULTS

APPENDIX F – TREE CONSTRAINTS PLAN

APPENDIX A - TABLE 1 TREE QUALITY ASSESSMENT

The trees are categorised as stated within the British Standard in a way that should help assist those within local government to help form a balanced judgement. The primary purpose of this report is to provide an assessment of the trees and to determine their suitability for retention in any proposed development.

The Tree Categories used in evaluating the trees on this site are reproduced below. This categorisation is also included in the tree data schedules and by colour code on the attached plan.

Category and definition Criteria (including subcategories where appropriate)

Category U

Trees unsuitable for retention (see Note)

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

- ✓ 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

NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7. See Table 2

Trees to be considered for retention

Category A

Trees of high quality with an estimated remaining life expectancy of at least 40 years

- ✓ 1 Mainly arboricultural qualities- 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)
- ✓ 2 Mainly landscape qualities- Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features
- ✓ 3 Mainly cultural values, including conservation- Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture) See Table 2

Category B

Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

- ✓ 1 Mainly arboricultural qualities- 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
- ✓ 2 Mainly landscape qualities- 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
- ✓ 3 Mainly cultural values, including conservation- Trees with material conservation or other cultural value See Table 2

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.

- ✓ 1 Mainly arboricultural qualities- Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories
- ✓ 2 Mainly landscape qualities- 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.
- ✓ 3 Mainly cultural values, including conservation- Trees with no material conservation or other cultural value. See Table 2.

***NOTE:** the BS Standard states...Particular care is needed when evaluating young trees, especially where they occur as individual specimens. Where these are less than 150 mm stem diameter at 1.5 m above adjacent ground level, it might be acceptable and relatively straightforward to mitigate their loss, if necessary, with similar new tree planting. Alternatively, it might be practicable to relocate such trees within the site (e.g. using a tree spade). Whilst the presence of young trees of good form and vitality is generally desirable (i.e. those trees which have the potential to develop into quality mature specimens), they need not necessarily be a significant constraint on the site's potential.*

Where remaining contributory years' score is provided within the 'Findings' , and where further investigative works are required, these scores are preliminary only and based on an incomplete inspection.

BRITISH STANDARD BS 5837:2012

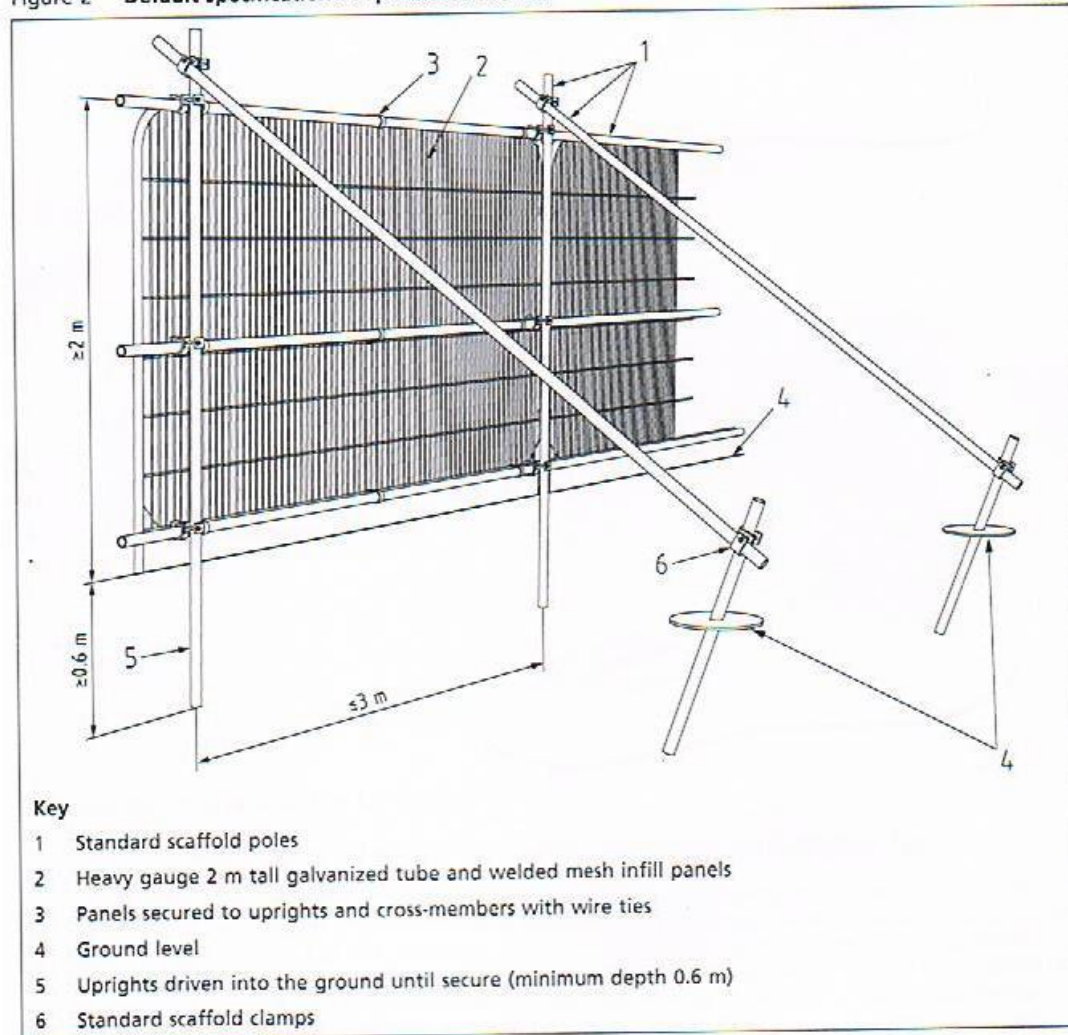
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APPENDIX B - DEFAULT SPECIFICATION FOR PROTECTIVE BARRIER

Figure 2 Default specification for protective barrier



APPENDIX C - TABLE B1- TREES AND THE PLANNING SYSTEM

BS 5837:2012

BRITISH STANDARD

**Annex B
(informative)**

Trees and the planning system

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.

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 RPA.

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

APPENDIX D - PHOTOGRAPHS

Photograph 1.



T20 & T21

Photograph 2.



G12

Photograph 3.



T24

Photograph 4.



G14

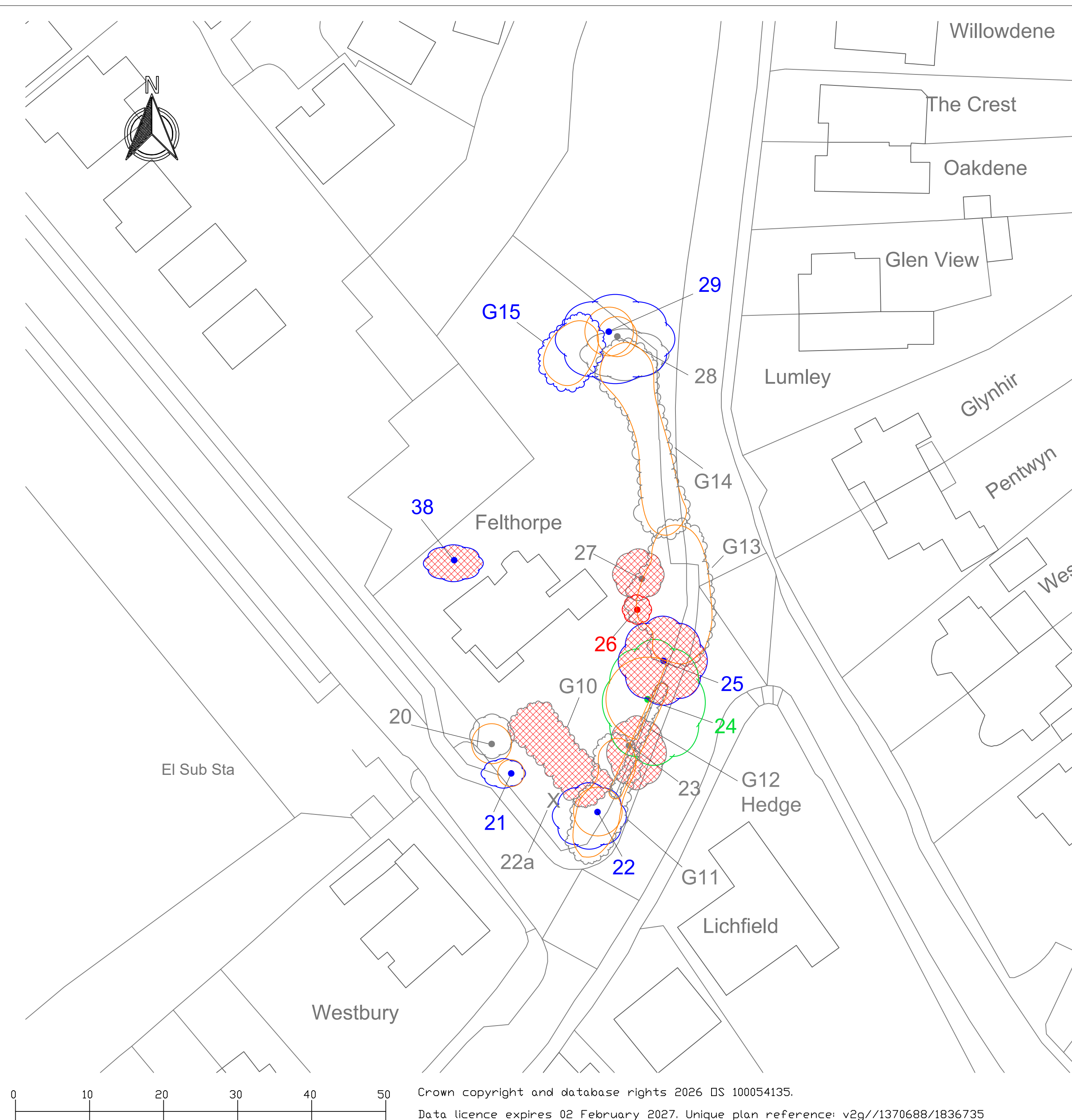
Photograph 5.



A compressive feature in G15



APPENDIX E – TREE CONSTRAINTS PLAN



Tree Number	Tree Tag	Species	Height (m)	Effectual Diameter (mm)	Remaining Contribution (years)	Retention Category	Root Protection Area (m²)	Root Protection Radius (m)
20	1383	Downy Birch (Betula pubescens)	16	230	20-40	C 2,3	23	2.7
21	1385	Beech (Fagus sylvatica)	14	230	40+	B 1,3	10	2.7
G10	NA	Lawson Cypress (Cupressus) Felled						
22	1386	Holly (Ilex aquifolium)	10	275	40+	B 2,3	34	3.3
22a	971	Goat Willow (Salix caprea)	10	250	20-	C 2,3		3
G11	NA	Goat willow, cherry laurel, Himalayan honeysuckle Hazel - Felled						
G12	NA	Yew (Taxus baccata)	2	75	40+	C 2,3	3	0.9
23		Pear Felled						
24	471	Pedunculate oak (Quercus patraea)	15	550	40+	A 2,3	102	9.2
25		Lawson cypress Felled						
G13	NA	Ash, Lawson cypress with juvenile foliage, variegated holly, Wilson's honeysuckle, hazel, holly, Ash Felled	11	150	20-40	C 2,3	10	1.8
26		Pear Felled						
27		Holly Felled						
G14	NA	Lawson cypress	14	00 large	20-40	C 2	41	600
28	1392	Red Oak (Quercus rubra)	16	250	40+	C 2	23	3
29	1391	Red Oak (Quercus rubra)	16	300	40+	B 2	34	3.6
G15	475	Lawson Cypress (Cupressus)	20	525	20-40	B 2	125	6.3
38	1398	Common walnut Felled						

Key

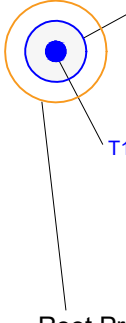
Trees to be considered for retention.

-  A – High
-  B - Moderate
-  C - Low
-  Root Protection Area

Trees unsuitable for retention.

-  U - Fell
-  Felled Tree

Tree Key



Crown Spread
Measured in North, South,
East and West side of tree.

T₁ Trees Number
(T - Individual Tree, G - Group,
A - Tree area, W - Woodland,
H - Hedgerow)

Root Protection Area (RPA)
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.



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Client	Ashley Smith
Surveyed by	SA
Date surveyed	Jan 2026
Drawn by	LP
Scale	1:250 when printed at A2
OS Grid Ref	333663 (E), 191116 (N)

INDICITIVE ONLY.
PLEASE REFER TO ROOT PROTECTION TABLE.
DO NOT SCALE FROM THIS DRAWING
CHECK ALL DIMENSIONS ON SITE

REF. DRAWINGS	
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**TITLE Tree Constraints Plan
 felthorpe House, Caerleon**

DRAWING No:	26-007
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