LAKELAND
TREE CONSULTANCY
ARBORICULTURAL PLANNING SPECIALIST

Arboricultural Impact Assessment

Fairview
Back Lane
Wiswell
BB7 9BU

March 2023

Project details

Job no.	LTC187
Site	Fairview, Back Lane, Wiswell, BB7 9BU
Clients	Mr and Mrs Bond
Agent	Stanton Andrews Architects
Arboriculturist	Jennie Keighley PhD MSc MArborA
Local authority	Ribble Valley Borough Council
Date	23 March 2023
Issue	Final issue for planning

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ARBORICULTURAL PLANNING SPECIALIST

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1. Executive Summary

1.1 This arboricultural impact assessment relates to a planning application at the site in question for proposed extensions and remodelling to the existing dwelling.

1.2 A tree survey identified eight individual trees, four groups of trees and two hedges with potential to be impacted by the works.

1.3 Assessment of the proposal plan indicates that construction of the development will require the removal of two low value trees. The clients may also wish to remove and replace a low value hedge as part of the redevelopment.

1.4 The site can accommodate new tree planting in order to compensate for the development-related losses, the provision of which can be secured by means of a condition attached to a planning approval.

1.5 The proposals will require construction operations to be carried out within the RPAs of retained trees. Special working methods will be needed, as discussed in the preliminary arboricultural method statement included herein.

1.6 The retained trees can be adequately protected by means of BS5837-specification tree protection fencing, which is to be laid-out as shown on the appended tree protection plan, and by following the tree protection recommendations made herein.

2. Introduction

2.1 The clients' agent, Stanton Andrews Architects, instructed Lakeland Tree Consultancy to survey the trees at the site in question and undertake an arboricultural impact assessment (AIA) in relation to a planning application for the remodelling of the existing dwelling, including the erection of extensions to either side.

2.2 Arboriculturist Jennie Keighley PhD MSc MArborA visited the site on 14 March 2023 and surveyed all trees with reasonable potential to be impacted by the proposed works in accordance with the British Standard guidance BS5837 (2012) *Trees in relation to design, demolition and construction - Recommendations*.

2.3 This report will assess the potential impacts of the proposed development upon the existing tree population and outline the tree protection measures needed to prevent retained trees from being damaged during the construction works. It should be supplied to the Local Planning Authority (LPA) to allow them to determine the planning application and its contents should be adhered to by the appointed contractor, should the development be approved.

3. The Site and Tree Population

3.1 The site is located in the village of Wiswell, Lancashire, and is currently a detached, two-storey residential dwelling with surrounding garden area (see Figure 1). The site is bounded to the north and south by neighbouring residential properties, to the east by Pendleton Road and to the west by Back Lane, from which there is existing vehicular access.

3.2 The tree survey identified eight individual trees, four groups of trees and two hedges with potential to be impacted by the proposed development works. The positions of the surveyed trees in relation to the existing site are shown on the appended tree survey plan.

3.3 The retention value of the surveyed trees was categorised using the guidance given in Table 1 of BS5837 (2012), which is explained in the appended tree survey schedule. Five individual trees were categorised as moderate quality (B-category) and three trees, four groups and the hedges were categorised as low quality (C-category).

Figure 1: Google Earth image of application site (dated 24 April 2020)

4. The Development Proposal and Arboricultural Impact Assessment

4.1 The proposal plans provided (drawing numbers 2268 pl.11 Rev. C and 2268 10), by Stanton Andrews Architects, indicate that the development proposal is for the erection of two-storey extensions on either side of the existing dwelling, interior remodelling and alterations to the existing driveway to form a terrace at the front of the property and three new car parking spaces.

4.2 The proposed site plan provided does not show proposed services or drainage at this stage, although it is anticipated that these will utilise existing infrastructure. Any new service trenches, ground source heat pump infrastructure or foul and surface water drainage required, including pipes, channels, sewage treatment plants or surface water attenuation features, must be sited so as to avoid the root protection areas (RPAs) of retained trees.

4.3 As shown on the appended tree protection plan and in Table 1, below, construction of the development will require the removal of two small C-category trees. The clients would also like the option to either remove the Leyland cypress hedge at the Back Lane frontage and replace it with a new native species hedge, *or* to reduce the existing hedge to a height of 1.8m.

Tree works

4.4 All tree works should be carried out by a suitably qualified, experienced and insured arborist and must be in accordance with the British Standard guidance BS3998 (2010) *Tree work - recommendations.*

Table 1: Proposed tree removals

ID no.	BS5837 category	Recommendation
T4	C	Remove in order to construct development as proposed
G3	C	Remove tree nearest house, as indicated on the tree protection plan, in order to construct development as proposed
H1	C	Reduce to a height of 1.8m *or* Remove and replace with a new native species hedge
Total tree removals:		**2no. C-category trees** **1no. C-category hedge (not yet determined)**

Compensatory tree planting

4.5 The site can accommodate new tree planting in order to compensate for the development-related tree losses. The specification, delivery and aftercare of compensatory tree planting can be secured by means of a suitably worded condition attached to a planning approval and should be implemented in accordance with the British Standard guidance, BS8545 (2014) *Trees: from nursery to independence in the landscape - Recommendations*.

5. Protection of Retained Trees

Tree protection fencing

5.1 Adequate protection of the retained trees during the development is paramount in ensuring their health and survival. Creating a construction exclusion zone by erecting temporary fencing around the perimeter of the trees' root protection areas (RPA) is the most effective way of protecting them during the works. It is important that tree protection fencing is secured into the ground, so that it cannot be easily moved whilst the construction works are underway.

5.2 For the development in question, the default BS5837 (2012) tree protection fencing specification, as shown on the appended illustration, is expected to be suitable. The Heras fence panels may sit in feet, rather than being driven into the ground on scaffold poles where they pass along the area of hard surface to the rear of the property (in front of tree T8). The fencing is to be be laid-out as indicated on the appended tree protection plan prior to any works on site, including deliveries, and shall remain in place until the development is complete. Once erected, the tree protection fencing should be labelled at regular intervals with all-weather notices stating 'TREE PROTECTION AREA - KEEP OUT!'.

Preliminary arboricultural method statement

5.3 An arboricultural method statement intends to identify site operations with reasonably foreseeable potential to adversely impact the health of trees within or close to the development site and outlines the necessary actions and precautions required during the development process to minimise the risk of causing damage to trees (see Table 2, below).

5.4 As this arboricultural method statement is provided pre-determination, it should be considered preliminary, pending the confirmation of all design details, such as services, drainage, boundary treatments and detailed construction specifications. A detailed arboricultural method statement, including a sequence of works and program of site monitoring and arboricultural supervision, should be conditioned to a planning approval.

Table 2: Site-specific guidance for operations within tree RPAs

Operation	BS5837 Guidance
Resurfacing of driveway	• The proposals include the resurfacing of the existing driveway within the RPAs of retained trees T1 and G1 • Care must be taken not to disturb tree roots that are likely to be present directly under the existing block paving • The existing surface shall be removed using hand-held tools only, working backwards over the area to avoid moving over the exposed ground • There will be no excavation below existing soil level, no lowering of ground levels and no severing of roots within RPAs • Any roots exposed during removal of the existing surface shall be covered to protect them from rapid temperature changes and prevent dessication • To give them the best chance of recovery, roots will be surrounded with topsoil, uncompacted sharp sand (not builders' sand, which has high salt content that is toxic to trees) or other loose inert granular fill before laying the new surface • Where required, a minimal amount of infill may be used to achieve desired ground levels, but this must be an inert, granular material that remains gas- and water-permeable throughout its design life

General tree protection recommendations

5.5 The following recommendations should be heeded throughout the development in order to prevent damage to retained trees: -

- The tree protection fencing shall be installed prior to any works on site, with the exception of tree works and vegetation removal
- Once in place, the tree protection fencing shall not be moved or altered until the development is complete, unless authorised in advance by the Project Arboriculturist or LPA Tree Officer
- Vehicles and plant shall not operate within RPAs, unless there is an existing hard surface in place or load-appropriate ground protection has been installed
- Soil levels within RPAs shall not be raised or lowered, unless authorised in advance by the LPA
- Soil shall not be scraped, skimmed or mechanically compacted within RPAs. The majority of tree roots are found in the top 600mm of soil, so even a shallow scrape can cause detrimental root damage
- Materials, equipment, vehicles, skips, demolition arisings, stone or earth shall not be stored within soft-surfaced RPAs
- Oil, fuel, chemicals, cement or any other material with potential to cause damage to trees shall not be poured, stored, mixed, washed or discharged within tree RPAs. Consideration shall also be given to the topography of the site to prevent materials running towards trees
- Services and drainage shall not be installed below ground level within RPAs, unless authorised in advance by the LPA
- Surface water run-off shall not be re-diverted into or out of RPAs
- Fires shall not be lit within 15m of any tree crown or RPA
- Temporary buildings, including welfare units and portable toilets, shall not be sited within RPAs
- Notice boards, telephone cables, anchorage for equipment or any other services shall not be attached to trees
- Deliveries by crane shall be supervised by the site manager, ensuring the vehicle operates in a manner in which trees are not put at risk of damage

6. Tree Preservation Orders, Conservation Areas and Other Legal Constraints

6.1 Trees may be subject to legal protection, by means of being covered by a Tree Preservation Order (TPO) or by being located within a Conservation Area. It is an offence to cut down, uproot, top, lop, cause wilful damage or destruction of protected trees without the appropriate consent from the Local Authority. Fines for carrying out unauthorised works to protected trees can be considerable. The Local Authority must be given six-weeks' notice prior to the removal of trees within a Conservation Area with a stem diameter greater than 75mm (at a height of 1.5m above ground level). To carry out works on trees covered by a TPO, a formal application must be made to the Local Authority, which should be determined within an eight-week period.

6.2 According to Ribble Valley Borough Council's website, the site is located within the Wiswell Conservation Area (www.ribblevalley.gov.uk/downloads/file/101/wiswell-conservation-area-map; accessed 23/03/2023), meaning the trees therein are afforded the aforementioned protection. The TPO list on Ribble Valley Borough Council's website does not appear to show any additional TPO protection at the site (https://www.ribblevalley.gov.uk/downloads/download/263/list-of-tree-preservation-orders-tpo; accessed 23/3/23) , although this must be confirmed directly with the Local Authority prior to carrying out any tree works that are not authorised as part of a detailed planning approval.

6.3 It should be noted that, subject to certain exemptions, a felling license must be obtained from the Forestry Commission for felling of trees that will equate to more than five cubic metres of timber in a calendar quarter. This does not, however, apply to tree removals that are authorised under a detailed planning approval.

6.4 Hedgerows meeting a particular series of criteria may be classed as ‘important’ and afforded legal protection under the Hedgerows Regulations 1997. It is an offence to remove an important hedgerow without appropriate consent from the Local Authority.

6.5 Birds, bats and certain other species are protected by the Wildlife and Countryside Act 1981. It is an offence to disturb wild birds within the nesting season (from March to August inclusive) and bats at any time of year, and this must be taken into account whilst carrying out tree works. The advice of a suitably qualified and licensed ecologist must be sought if the presence of birds, bats or other protected species is identified before or during tree works.

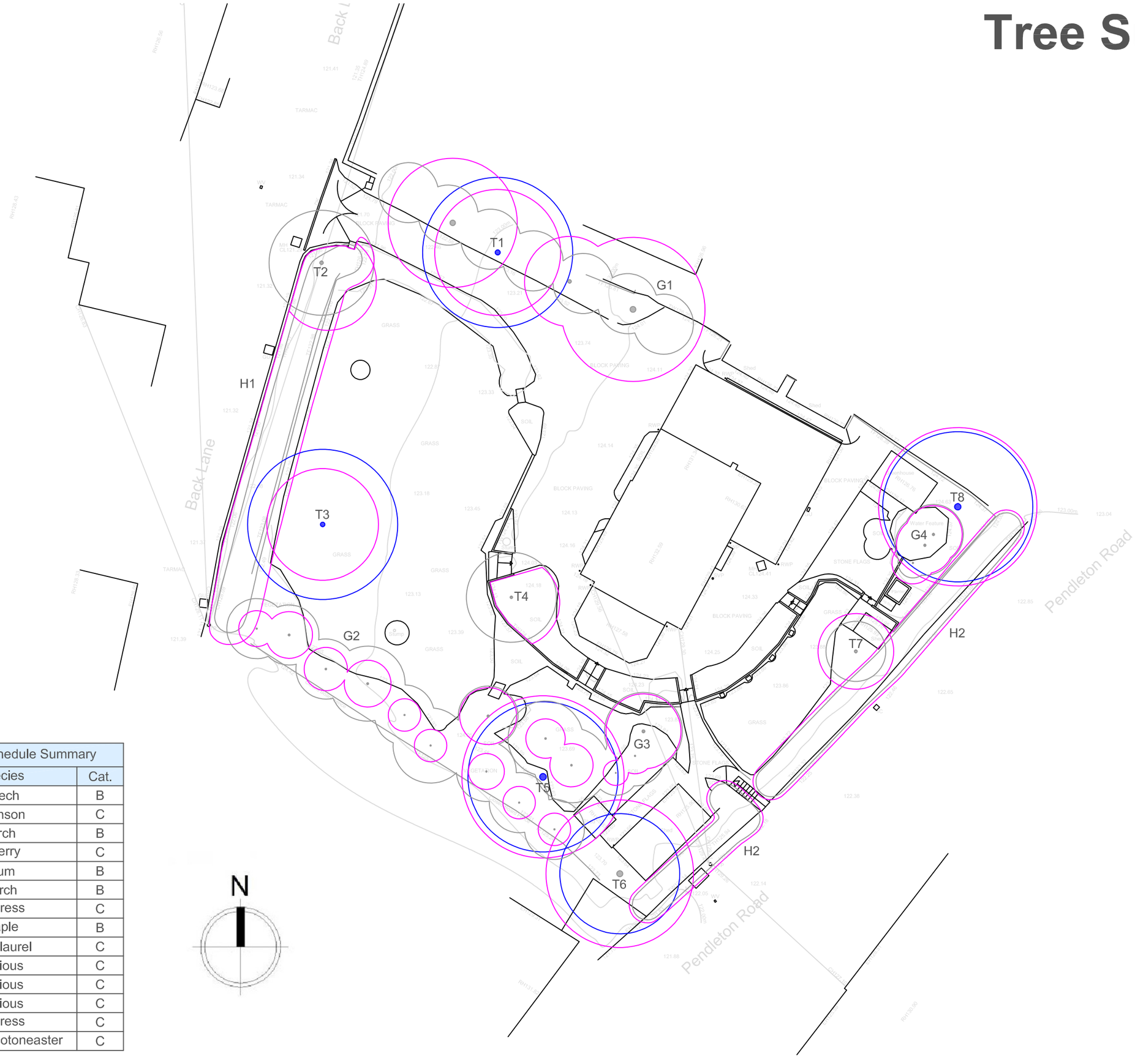
References

British Standards Institute (2014) *BS8545 Trees: from nursery to independence in the landscape - recommendations*

British Standards Institute (2012) *BS5837 Trees in relation to design, demolition and construction - recommendations*

British Standards Institute (2010) *BS3998 Tree work - recommendations*

Tree Survey Plan



BS5837 Tree retention categories:

- Category A — High quality
- Category B — Moderate quality
- Category C — Low quality
- Category U — Unsuitable for retention
- Root protection areas (RPAs)

Identification numbers:

T = individual tree
G = group of trees
W = woodland
H = hedge

Tree Survey Schedule Summary		
ID	Species	Cat.
T1	Beech	B
T2	Damson	C
T3	Birch	B
T4	Cherry	C
T5	Gum	B
T6	Larch	B
T7	Cypress	C
T8	Maple	B
G1	3no. laurel	C
G2	Various	C
G3	Various	C
G4	Various	C
H1	Cypress	C
H2	Cypress, cotoneaster	C

Site:
Fairview
Back Lane
Wiswell
BB7 9BU

Clients:
Mr & Mrs Bond

Date: March 2023
Scale: 1:250 at A3
Drawing: LTC187-TSP
Drawn by: JK

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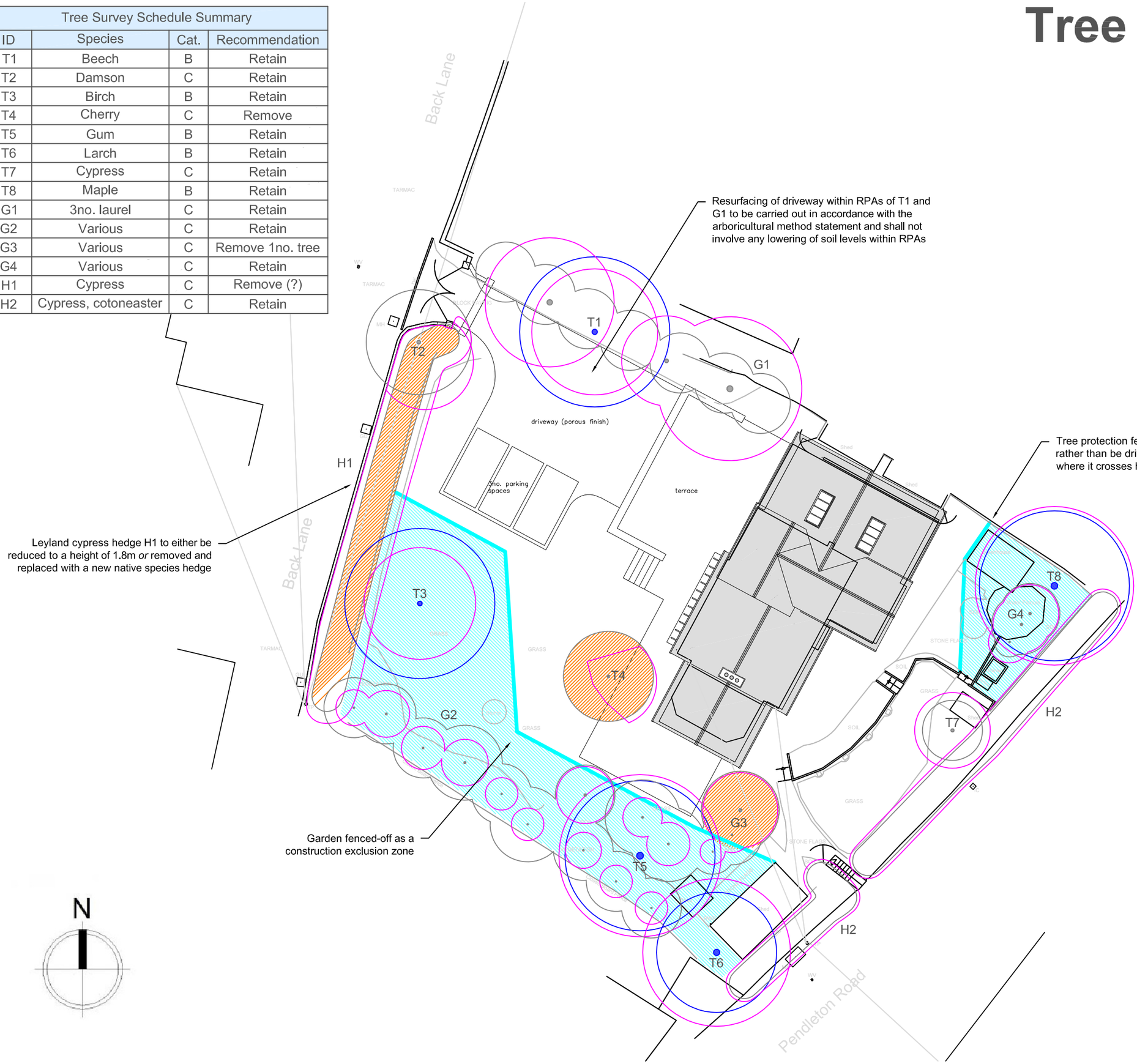
Tree Protection Plan

Tree Survey Schedule Summary			
ID	Species	Cat.	Recommendation
T1	Beech	B	Retain
T2	Damson	C	Retain
T3	Birch	B	Retain
T4	Cherry	C	Remove
T5	Gum	B	Retain
T6	Larch	B	Retain
T7	Cypress	C	Retain
T8	Maple	B	Retain
G1	3no. laurel	C	Retain
G2	Various	C	Retain
G3	Various	C	Remove 1no. tree
G4	Various	C	Retain
H1	Cypress	C	Remove (?)
H2	Cypress, cotoneaster	C	Retain



Category A
High quality

Category B
Moderate quality

Category C
Low quality

Category U
Unsuitable for retention

Root protection areas (RPAs)

Proposed tree removals

Construction exclusion zone and tree protection fencing

Identification numbers:
T = individual tree
G = group of trees
W = woodland
H = hedge

Site:
Fairview
Back Lane
Wiswell
BB7 9BU

Clients:
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Date: March 2023
Scale: 1:250 at A3
Drawing: LTC187-TPP
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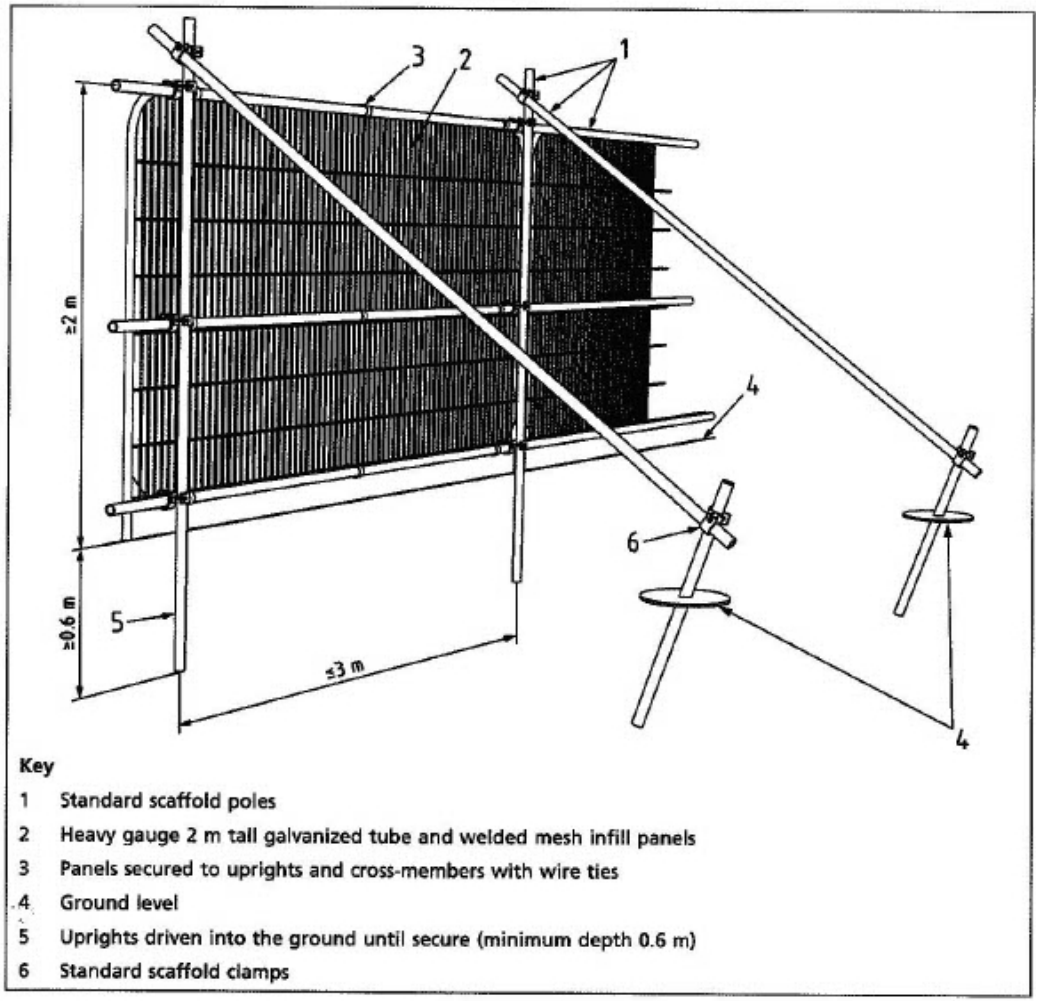
BS5837 Tree Protection Fencing



Key

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

Reproduced from *BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations*, BSI Standards Institution 2012.

TREE PROTECTION AREA
KEEP OUT!

TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND ARE SUBJECTS OF A TREE PRESERVATION ORDER
(TOWN & COUNTRY PLANNING ACT 1990)

CONTRAVENTION OF TREE PRESERVATION ORDER MAY LEAD TO **CRIMINAL PROSECUTION**

THE FOLLOWING **MUST** BE OBSERVED BY ALL PERSONS:-

- THE PROTECTIVE FENCING MUST NOT BE REMOVED
- NO PERSON SHALL ENTER THE PROTECTED AREA
- NO MACHINE OR PLANT SHALL ENTER THE PROTECTED AREA
- NO MATERIALS SHALL BE STORED IN THE PROTECTED AREA
- NO SPOIL SHALL BE DEPOSITED IN THE PROTECTED AREA
- NO EXCAVATION SHALL OCCUR IN THE PROTECTED AREA

ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY

Tree protection fencing shall be installed as shown in the specification on the left and shall be labelled at regular intervals with all-weather notices, such as that shown above, stating “TREE PROTECTION AREA - KEEP OUT!”

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BS5837 Tree Survey Schedule

The trees surveyed have been assigned one of the following categories, in line with the guidance outlined in British Standard 5837 (2012) *Trees in relation to design, demolition and construction - Recommendations*: -

A	Trees of **high quality** with an estimated remaining life expectancy of at least 40 years
B	Trees of **moderate quality** with an estimated remaining life expectancy of at least 20 years
C	Trees of **low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm
U	**Unsuitable for retention** 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

Key to tree survey schedule: -

T G W H	**Tree** **Group** **Woodland** **Hedge**	**Age** is classed as either: young; semi-mature, early-mature, mature or post-mature **Life expectancy** is classed as either: <10 years; 10+ years; 20+ years or 40+ years
RPA	**Root protection area**	The radial RPA is calculated as twelve times the stem diameter and represents the area where protection of the tree roots during development works is essential to the tree's future health and survival Where the RPA is not shown as circular on the tree survey plan, it may have been modified to take account of built structures such as buildings, roads or retaining walls
#	**Estimated values**	Measurements may have been estimated where the tree is inaccessible, such as if it is located on neighbouring land or if the stem is heavily covered in ivy Where trees have multiple stems, an average stem diameter may be given
≤ ≥ ≈		For groups of trees and hedges, measurements for the largest individual will be given or average measurements may be given where the individuals are approximately uniform

BS5837 Tree survey schedule

Site Fairview, Back Lane, Wiswell, BB7 9BU
Surveyor Jennie Keighley PhD MSc MArborA
Survey date 14 March 2023
Clients Mr and Mrs Bond
Conditions Heavy snow, gentle breeze
Job no. LTC187

ID no.	Species Latin name	Stem diameter (mm)	Age	Height (m)#	Crown spread (m)	Crown clearance (m)	Structural condition Physiological condition	Life expectancy (years)	Radial RPA (m)	BS5837 category	General observations
T1	European beech *Fagus sylvatica*	350#	Early-mature	11	N 5 E 5 S 5 W 5	3	Good Good	40+	4.2	B	• Growing within hedge and therefore unable to fully inspect base and lower stem • No significant visible defects
T2	Damson *Prunus insititia*	250#	Mature	6	N 3.5 E 3.5 S 3.5 W 3.5	4	Good Good	10+	3	C	• Growing within boundary hedge and therefore unable to fully view stem • One dead substem emerging from hedge • Overhead cable passes through crown
T3	Himilayan birch *Betula utilis*	310	Mature	11	N 5 E 5 S 5 W 5	2.5	Good Good	10+	3.72	B	• Planting stake occluded into western side of base
T4	Japanese cherry *Prunus serrulata*	110 100 100 60	Mature	5.5	N 3 E 3 S 3 W 3	1.5	Good Good	10+	2.3	C	• Early-flowering variety • Multi-stemmed from base • Large surface root extending on western side
T5	Blue gum *Eucalyptus globulus*	450	Mature	18	N 5 E 5 S 5 W 5	3	Good Good	10+	5.4	B	• Substem emerges at eastern side of base and is occluded into main stem and first primary branch

BS5837 Tree survey schedule

Site Fairview, Back Lane, Wiswell, BB7 9BU
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Survey date 14 March 2023
Clients Mr and Mrs Bond
Conditions Heavy snow, gentle breeze
Job no. LTC187

ID no.	Species Latin name	Stem diameter (mm)	Age	Height (m)#	Crown spread (m)	Crown clearance (m)	Structural condition Physiological condition	Life expectancy (years)	Radial RPA (m)	BS5837 category	General observations
T6	European larch *Larix decidua*	410	Early-mature	12	N 4 E 4 S 4 W 4	2	Good Good	10+	4.92	B	• No significant visible defects
T7	Variegated Lawson cypress *Chameacyparis lawsoniana*	210	Mature	8	N 2 E 2 S 2 W 2	0.5	Good Good	10+	2.52	C	• Ivy cover growing up stem
T8	Norway maple *Acer platanoides*	440	Early-mature	10	N 5 E 5 S 5 W 5	2.5	Good Good	20+	5.28	B	• Stem covered in moss and ivy
G1	3no. Portuguese laurel *Prunus lusitanica*	≤ 4x200#	Mature	≤ 7	N 2 E 3.5 S 2 W 3.5	0	Good Good	10+	≤ 4.8	C	• Linear group growing within shrub border • Crowns managed to form part of hedge, alongside a number of smaller shrubs

BS5837 Tree survey schedule

Site	Fairview, Back Lane, Wiswell, BB7 9BU	**Surveyor**	Jennie Keighley PhD MSc MArborA	**Survey date**	14 March 2023
Clients	Mr and Mrs Bond	**Conditions**	Heavy snow, gentle breeze	**Job no.**	LTC187

ID no.	Species Latin name	Stem diameter (mm)	Age	Height (m)#	Crown spread (m)	Crown clearance (m)	Structural condition Physiological condition	Life expectancy (years)	Radial RPA (m)	BS5837 category	General observations
G2	3no. holly 2no. plum 2no. Sawara cypress 2no. Leyland cypress 1no. serviceberry 1no. cherry 1no. Voss's laburnum *Ilex aquifolium* *Prunus domestica* *Chamaecyparis pisifera* *Cupressus* x *leylandii* *Amelanchier* sp. *Prunus* sp. *Laburnum* x *watereri* Vossii	≤ 4x80#	Young to mature	≤ 20	N ≤ 2.5 E ≤ 2.5 S ≤ 2.5 W ≤ 2.5	≥ 0	Good Moderate to Good	10+	1.9	C	• Closely spaced group of small, ornamental garden trees lining southern boundary within shrub border
G3	1no. serviceberry 1no. plum 1no. rowan 1no. lilac 1no. golden elm *Amelanchier* sp. *Prunus domestica* *Sorbus aucuparia* *Syringa vulgaris* *Ulmus* x *hollandica* Wredei	≤ 150 150 #	Semi-mature to mature	≤ 5	N ≤ 2.5 E ≤ 2.5 S ≤ 2.5 W ≤ 2.5	≥ 1.5	Good Good	10+	≤ 2.5	C	• Group of small, ornamental garden trees

BS5837 Tree survey schedule

Site Fairview, Back Lane, Wiswell, BB7 9BU
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ID no.	Species Latin name	Stem diameter (mm)	Age	Height (m)#	Crown spread (m)	Crown clearance (m)	Structural condition Physiological condition	Life expectancy (years)	Radial RPA (m)	BS5837 category	General observations
G4	1no. elder 1no. Lawson cypress 1no. Japanese maple *Sambucus nigra* *Chameacyparis lawsoniana* *Acer palmatum*	≤ 110 100 70	Semi-mature to mature	≤ 5	N ≤ 2.5 E ≤ 2.5 S ≤ 2.5 W ≤ 2.5	≥ 0	Good Good	10+	≤ 2	C	• Closely spaced group growing on rockery area • Elder heavily reduced
H1	Leyland cypress *Cupressus* x *leylandii*	≈ 150	Mature	4	N 1 E 1 S 1 W 1	0	Good Good	10+	1.8	C	• Managed boundary hedge
H2	Leyland cypress Cotoneaster *Cupressus* x *leylandii* *Cotoneaster* sp.	≈ 100	Mature	≤ 3.5	N 1 E 1 S 1 W 1	0	Good Good	10+	1.2	C	• Managed boundary hedge • Leylandii foliage heavily browned on site site on section by shed

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