



LAKELAND
TREE CONSULTANCY
ARBORICULTURAL PLANNING SPECIALIST

BS5837 Tree Survey

Underwood

The Hill

Millom

LA18 5EZ

October 2023

Project details

Job no.	LTC237
Site	Underwood, The Hill, Millom, LA18 5EZ
Clients	Mr and Mrs Slack
Agent	HM Architecture (NW) LLP
Arboriculturist	Jennie Keighley PhD MSc MArborA
Local authority	Cumberland Council
Issue date	30 October 2023

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Summary

- The clients' agent instructed Lakeland Tree Consultancy to survey the trees at the site in question in relation to a planning application for the erection of outbuildings.
- Trees with potential to be impacted by the proposed works were surveyed in accordance with the British Standard guidance outlined in BS5837: 2012 *Trees in relation to design, demolition and construction - Recommendations* on 30 October 2023.
- The survey identified six individual trees, four groups of trees and a woodland edge, which were located both within the site and on areas of immediately adjacent land.
- Details and locations of the existing trees in relation to the existing site are included in the tree survey schedule and on the tree survey plan, below. These documents should be used to inform the proposed site design in accordance with BS5837.

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	Tree	Age is classed as either: young; semi-mature, early-mature, mature or post-mature
G	Group	
W	Woodland	
H	Hedge	
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 Underwood, The Hill, Millom, LA18 5EZ **Surveyor** Jennie Keighley PhD MSc MArborA **Survey date** 30 October 2023
Clients Mr and Mrs Slack **Conditions** Intermittent light rain, light breeze **Job no.** LTC237

ID no.	Species	Stem diameter (mm)	Age	Height (m)#	Crown spread (m)	Crown clearance (m)	Structural condition	Life expectancy (years)	Radial RPA (m)	BS5837 category	General observations
	Latin name						Physiological condition				

T1	Horse chestnut	1170 890	Post-mature	18	N 5.5 E 10 S 7.5 W 3.5	1.5	Poor	<10	15	U	<ul style="list-style-type: none"> • Bifurcates at base • Dominant eastern stem then bifurcates at a height of 2m • Visible decay with black rhizomorphs from base to a height in excess of 3m indicates that western stem is extensively colonised with honey fungus (white rot decay species <i>Armillaria mellea</i>) • Stem lesions indicate tree is also infected with horse chestnut bleeding canker (bacterium <i>Pseudomonas syringae</i> pathovar <i>aesculi</i>) • Twig distortions through majority of crown indicate a significant reduction in vitality • Crown heavily weighted to east • Tree evidently producing fresh branch growth on western side in an attempt to balance its crown • Significant adaptive growth to eastern leader • Two secondary branch failures in lower crown of western leader • Structural integrity projected to be severely compromised as a result of decay associated with honey fungus infection, presenting a risk of stem tear-out, full stem or rootplate failure (dependent on extent of decay internally) • Advise to remove tree due to risk of failure, which would likely be eastwards, towards the house
	<i>Aesculus hippocastanum</i>						Moderate				

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T2	Sessile oak <i>Quercus petraea</i>	750 750	Mature	17	N 6.5 E 6.5 S 6.5 W 6.5	1.75	Moderate	20+	12.7	B	<ul style="list-style-type: none"> Dying back from upper crown Bifurcates near base into codominant stems Significant basal flare and sounding with a nylon mallet are suggestive of a degree of basal decay but no fungal fruiting bodies could be found around base to identify the causative species Monitor for further decline and for the appearance of fungal fruiting bodies around base of tree (oaks may tolerate fungal infection for many years, depending on the species responsible)
T3	Common ash <i>Fraxinus excelsior</i>	760	Mature	> 20	N 3 E 3 S 7 W 7	5	Poor	<10	9.12	U	<ul style="list-style-type: none"> View obscured by Leylandii but tree evidently in an advanced stage of terminal infection with ash dieback disease (fungal pathogen <i>Hymenoscyphus fraxineus</i>)
T4	Common ash <i>Fraxinus excelsior</i>	810	Mature	18	N 7 E 7 S 7 W 7	4	Poor	<10	9.72	U	<ul style="list-style-type: none"> View obscured by Leylandii but tree evidently in an advanced stage of terminal infection with ash dieback disease Ground disturbance evident within RPA

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T5	Sessile oak <i>Quercus petraea</i>	570	Mature	15	N 3.5 E 7 S 9 W 7	2	Good Good	40+	6.84	B	<ul style="list-style-type: none"> Ivy cover growing to upper crown has been cut and has died back Crown fully weighted south, into site
T6	European beech <i>Fagus sylvatica</i>	1330	Post-mature	16	N 6 E 6 S 6 W 6	4	Moderate/ Good Moderate/ Good	10+	15	B	<ul style="list-style-type: none"> Feature tree growing on island in driveway Dying back from upper crown No fungal fruiting bodies found to identify cause of tree's decline Crown repeatedly lifted in the past; wounds unoccluded to fully occluded
G1	2no. European beech <i>Fagus sylvatica</i>	≤ 630	Early-mature	≤ 14	N 5 E 5 S 5 W 5	≥ 1	Good Good	40+	≤ 7.56	B	<ul style="list-style-type: none"> Pair of trees growing at either side of access to old tennis court No significant visible defects

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G2	Leyland cypress <i>Cupressus x leylandii</i>	≈ 300	Mature	≤ 14	N 6 E 6 S 6 W 6	≥ 1.75	Good Good	10+	3.6	C	<ul style="list-style-type: none"> Closely spaced linear group lining north and west of site Crowns lifted
G3	4no. Scots pine <i>Pinus sylvestris</i>	≤ 290	Semi-mature	≤ 12	N ≤ 3 E ≤ 3 S ≤ 3 W ≤ 3	≥ 1.75	Good Moderate/ Good	10+	≤ 3.48	C	<ul style="list-style-type: none"> Cluster of trees Ground disturbance and soil compaction evident throughout majority of RPAs
G4	Scots pine Horse chestnut Sessile oak European beech Sycamore <i>Pinus sylvestris</i> <i>Aesculus hippocastanum</i> <i>Quercus petraea</i> <i>Fagus sylvatica</i> <i>Acer pseudoplatanus</i>	≤ 770	Young to mature	≤ 20+	N ≤ 6 E ≤ 6 S ≤ 6 W ≤ 6	≥ 0	Poor to Good Dead to Good	40+	≤ 9.24	B	<ul style="list-style-type: none"> Shelterbelt screening site from neighbouring quarry access road Continues south-east, along access Some of trees tagged Understorey of hazel, holly and elder

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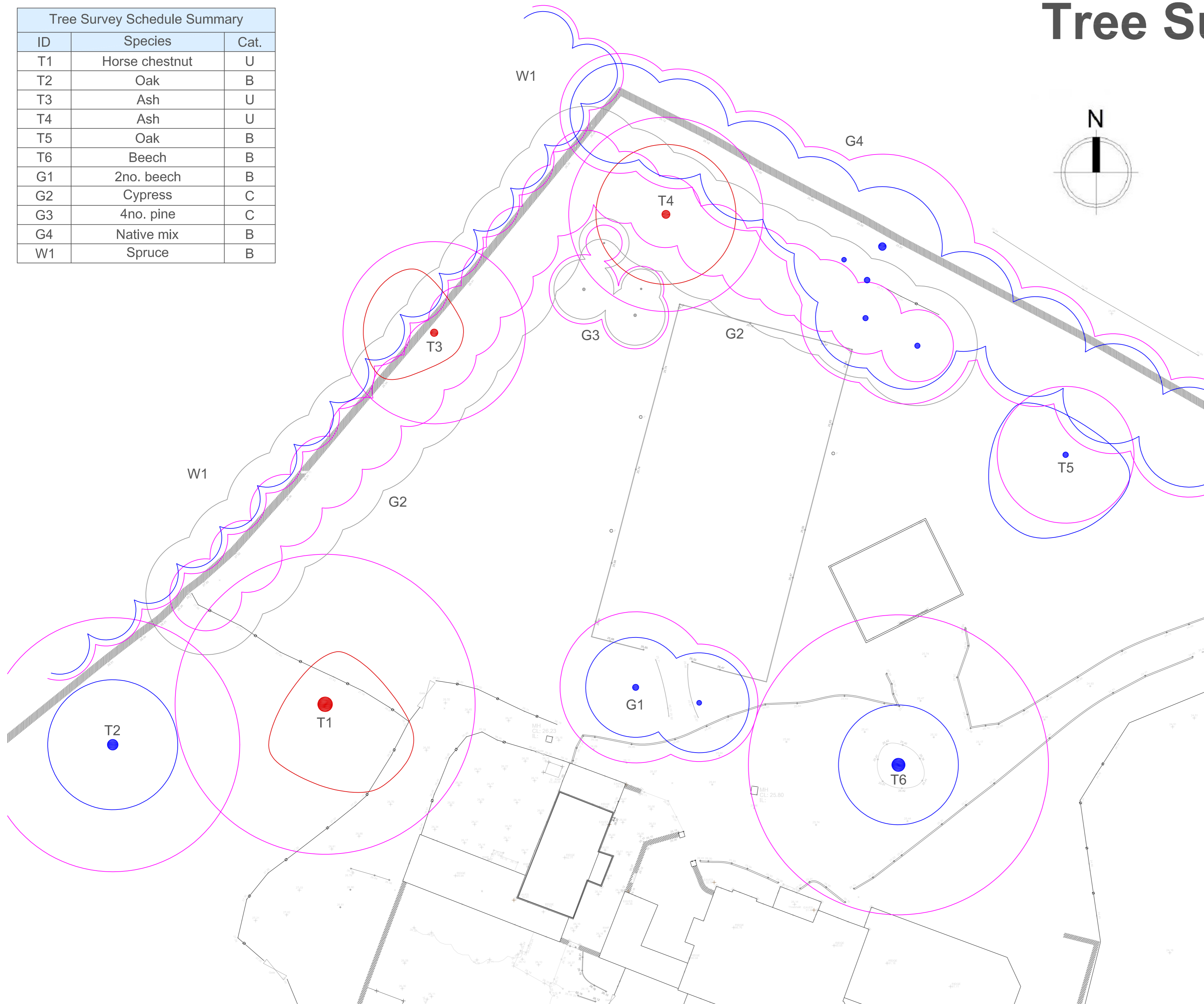
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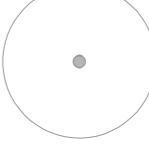
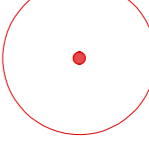
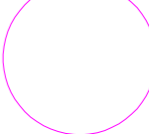
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	Latin name						Physiological condition				
W1	Sitka spruce	≈ 300	Early-mature	≤ 20	N 3	≥ 2	Good	40+	3.6	B	<ul style="list-style-type: none"> • Located on neighbouring land and therefore not accessed to inspect in detail • Timber plantation with occasional other deciduous trees within
	<i>Picea sitchensis</i>				E 3 S 3 W 3		Good				

Tree Survey Plan

Tree Survey Schedule Summary		
ID	Species	Cat.
T1	Horse chestnut	U
T2	Oak	B
T3	Ash	U
T4	Ash	U
T5	Oak	B
T6	Beech	B
G1	2no. beech	B
G2	Cypress	C
G3	4no. pine	C
G4	Native mix	B
W1	Spruce	B



BS5837 Tree retention categories:

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

Identification numbers:

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

Site:
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Clients:
Mr and Mrs Slack

Date: October 2023

Scale: 1:250 at A2

Drawing: LTC237-TSP

Drawn by: JK



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