



LAKELAND
TREE CONSULTANCY
ARBORICULTURAL PLANNING SPECIALIST

Arboricultural Impact Assessment

Higher Newfield Edge & Pentangle Barn
Stocks Lane
Middop
BB7 4JN

November 2021

Project details

Job No.	LTC072
Site	Higher Newfield Edge & Pentangle Barn, Stocks Lane, Middop, BB7 4JN
Clients	Mr & Mrs Birchall
Architect	Zara Moon Architects
Arboriculturist	Jennie Keighley PhD MSc MArborA
Local Authority	South Ribble Borough Council
Date	16 November 2021
Issue	First draft for review

Lakeland Tree Consultancy
Halton Mill, Mill Lane
Halton, Lancashire
LA2 6ND

T: 07917652230

E: info@lakelandtreeconsultancy.co.uk

W: lakelandtreeconsultancy.co.uk

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- Tree Removal Plan
- BS5837 Tree Survey Schedule



1. Executive Summary

1.1 This arboricultural impact assessment relates to a planning application for the demolition and replacement of an existing dwelling, the refurbishment of the neighbouring property and the construction of a new access lane to two neighbouring properties.

1.2 Five individual trees, eight groups of trees and two hedges were recorded as potentially within influencing distance of the proposed works. Assessment of the tree data in relation to the proposal plan provided indicates that construction of the development as proposed will require the removal of only one low quality group.

1.3 The planting of a number of new trees, shrubs and hedges is proposed within the newly landscaped gardens of the two properties and along the public right of way, which is projected to more than adequately compensate for the development-related losses. The specification, delivery and aftercare of new planting should be secured by means of a condition attached to a planning approval.

1.4 The retained trees can be adequately protected by following the general tree protection recommendations made herein.

2. Introduction

- 2.1 The client's agent, Zara Moon 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 demolition and replacement of existing dwelling Higher Newfield Edge, the refurbishment of neighbouring property Pentangle Barn and the construction of a new access lane to Pentangle Barn and its neighbouring property New Field Edge.
- 2.2 Arboriculturist Jennie Keighley PhD MSc MArborA visited the site on 10 May 2021 and surveyed the trees potentially within influencing distance of 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 in relation to the existing tree population and outline the tree protection measures needed to prevent retained trees from being damaged during the construction works.

3. The Site and Tree Population

3.1 The site is in a rural location, approximately four kilometres south-west of the town of Barnoldswick, Lancashire, and currently comprises two attached dwellings and part of their garden areas, a detached garage and outbuildings, the access lane and part of a neighbouring field (see Figure 1). The site is bounded to the north-east by neighbouring attached property New Field Edge and on all other sides by agricultural pasture and moorland.

3.2 The survey identified five individual trees, eight groups of trees and two hedges potentially within influencing distance of the proposed works. These were located both within the site and on areas of neighbouring land. The positions of the surveyed trees are shown on the appended tree removal 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. Four groups were categorised as moderate quality (B-category), four trees, four groups and the hedges were categorised as low quality (C-category) and one tree was categorised as unsuitable for retention (U-category) due to limited life expectancy.



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

4. The Development Proposal and Arboricultural Impact Assessment

- 4.1 The proposed site plan (drawing number 116.20 09) and heritage statement provided, by Zara Moon Architects, indicate that the proposal is for the demolition of existing dwelling Higher Newfield Edge, its detached garage and outbuildings, and subsequent erection of a replacement detached dwelling. The formerly attached neighbouring dwelling, Pentangle Barn, is to be refurbished and relandscaped, and a new access lane is proposed to serve Pentangle Barn and its attached dwelling to the north-east, New Field Edge.
- 4.2 The proposed site plan provided does not show proposed services or drainage at this stage. New service trenches and drainage features should be sited so as to avoid the root protection areas (RPAs) of retained trees.
- 4.3 As shown on the appended tree removal plan and in Table 1, below, construction of the development as proposed will require the removal of one low quality group in order to relandscape the rear garden area of Pentangle Barn as proposed.

Table 1: Arboricultural impacts of the proposed development

ID no.	BS5837 Category	Recommendation
G4	C	Remove all four trees in order to relandscape garden as proposed
Total arboricultural impacts		Removals: 1no. C-category group

Tree works

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

Compensatory tree planting

- 4.5 A number of new trees, shrubs and hedges are proposed within the newly landscaped gardens of Higher Newfield Edge and Pentangle Barn, and along the public right of way that passes between the two properties. The provision of the new planting is projected to more than adequately compensate for the necessary development-related losses. The specification, delivery and after-care of new planting should be secured by means of a suitably worded condition attached to a planning approval and tree planting 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

General tree protection recommendations

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

- 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
- 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, the result of which should be determined within an eight-week period.
- 6.2 According to Ribble Valley Borough Council's website, the site is not within a Conservation Area and none of the surveyed trees are the subject of a TPO. However, it is always advisable to contact the Council directly to check for any TPO protection prior to carrying out any tree works that have not been authorised as part of a full 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.

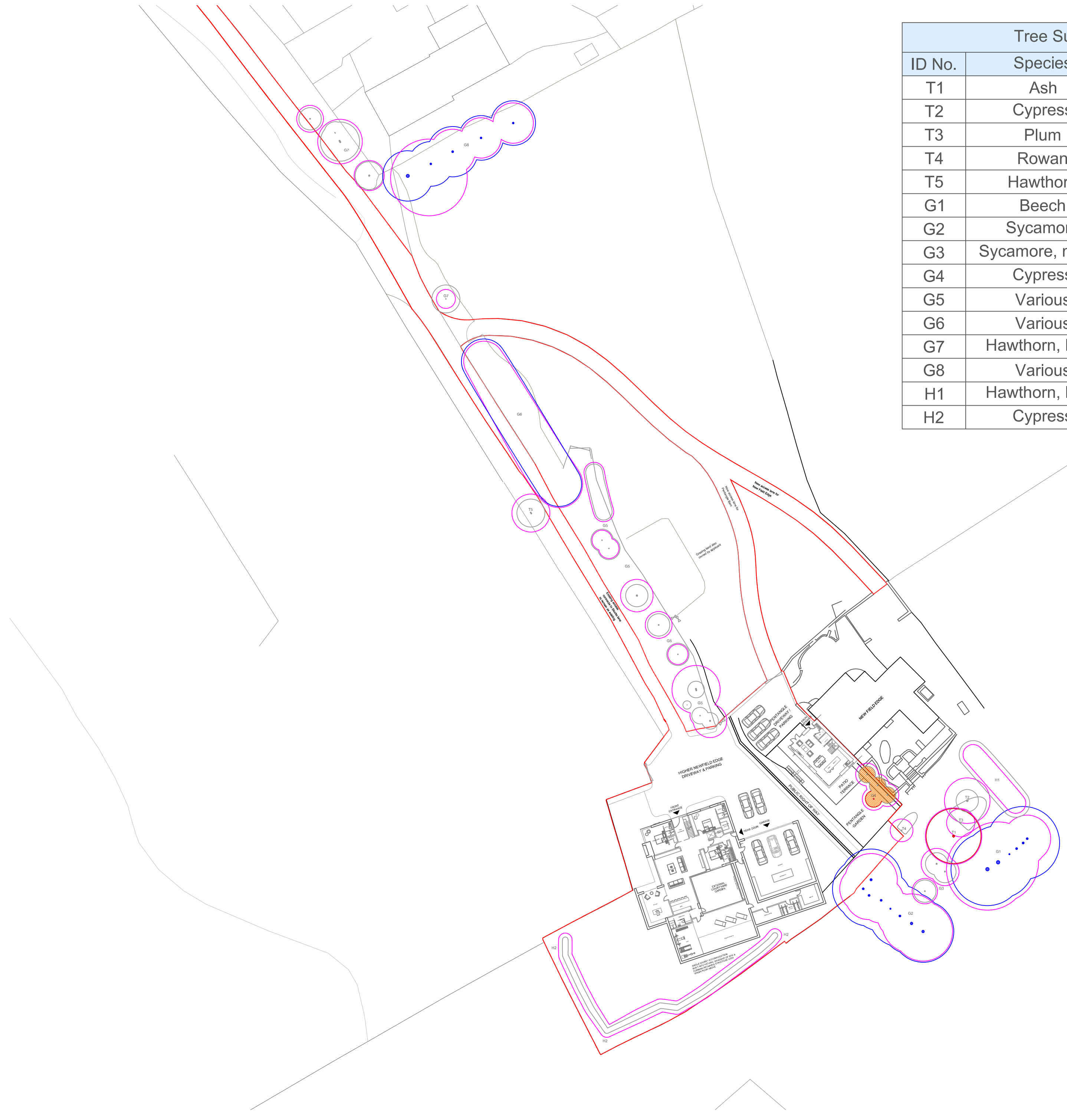
6.5 Birds, bats and certain other species are protected by the Wildlife and Countryside Act 1981. It is an offence to disturb wild birds within the nesting season (from March to August inclusive) and bats at any time of year, and this must be taken into account whilst carrying out tree works. The advice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

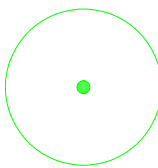
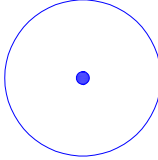
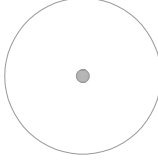
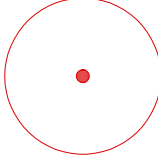
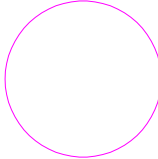

British Standards Institute (2012) *BS5837 Trees in relation to design, demolition and construction - recommendations*

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



Tree Survey Schedule Summary			
ID No.	Species	Cat.	Recommendation
T1	Ash	U	Retain
T2	Cypress	C	Retain
T3	Plum	C	Retain
T4	Rowan	C	Retain
T5	Hawthorn	C	Retain
G1	Beech	B	Retain
G2	Sycamore	B	Retain
G3	Sycamore, maple	C	Retain
G4	Cypress	C	Remove
G5	Various	C	Retain
G6	Various	B	Retain
G7	Hawthorn, holly	C	Retain
G8	Various	B	Retain
H1	Hawthorn, holly	C	Retain
H2	Cypress	C	Retain

Tree Removal Plan

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

Identification numbers:

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

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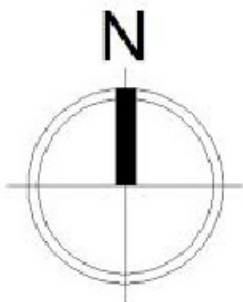
Clients:
Mr & Mrs Birchall

Date: November 2021

Scale: 1:500 at A2

Drawing: LTC072-TRP

Drawn by: JK



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	Life expectancy is classed as either: <10 years; 10+ years; 20+ years or 40+ years
		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 Higher Newfield Edge, Stocks Lane, Middop, BB7 4JN

Surveyor Jennie Keighley PhD MSc MA ArborA

Survey Date 10 May 2021

Clients Mr & Mrs Birchall

Conditions Overcast, strong wind

Job no. LTC072

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	Common ash <i>Fraxinus excelsior</i>	420	Early-mature	18	N 5 E 5 S 5 W 5	7	Moderate Moderate	<10	5.04	U	<ul style="list-style-type: none"> Crown exhibiting signs of mid-stage infection with ash dieback disease (<i>Hymenoscyphus fraxineus</i>) Terminal decline projected within 5 years
T2	Lawson cypress <i>Chamaecyparis lawsoniana</i>	340	Early-mature	14	N 2 E 2 S 2 W 2	0	Good Good	10+	4.08	C	<ul style="list-style-type: none"> Old planting stake occluded into base
T3	Plum <i>Prunus domestica</i>	210	Mature	9	N 6 E 2 S 0 W 3	2	Moderate Good	10+	2.52	C	<ul style="list-style-type: none"> Major stem lean to north-east
T4	Rowan <i>Sorbus aucuparia</i>	170	Mature	8	N 4 E 1 S 0 W 1	2	Good Good	10+	2.04	C	<ul style="list-style-type: none"> Crown suppressed by neighbouring trees and heavily biased north-east
T5	Hawthorn <i>Crataegus monogyna</i>	2x200 #	Mature	6	N 2.5 E 2.5 S 2.5 W 2.5	0	Good Good	10+	3.4	C	<ul style="list-style-type: none"> No significant visible defects

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G1	6no. European beech <i>Fagus sylvatica</i>	≤ 610	Semi-mature to mature	≤ 18	N ≤ 6.5 E ≤ 6.5 S ≤ 6.5 W ≤ 6.5	≥ 1.5	Good Good	20+	≤ 7.32	B	<ul style="list-style-type: none"> Linear group growing along boundary No significant visible defects
G2	8no. sycamore <i>Acer pseudoplatanus</i>	≤ 440	Semi-mature to early-mature	≤ 20	N ≤ 5.5 E ≤ 5.5 S ≤ 5.5 W ≤ 5.5	≥ 2	Good Good	20+	≤ 5.28	B	<ul style="list-style-type: none"> Linear group growing along boundary One tree leaning significantly north-east
G3	2no. sycamore 1no. Norway maple <i>Acer pseudoplatanus</i> <i>Acer platanoides</i>	≤ 230	Young	≤ 18	N 2 E 2 S 2 W 2	≥ 1.5	Good Good	20+	≤ 2.76	C	<ul style="list-style-type: none"> Group in centre of rear garden, surrounded by younger saplings Minor deadwood in lower crowns
G4	4no. Lawson cypress <i>Chamaecyparis lawsoniana</i>	≤ 170	Semi-mature	≤ 8	N 1.5 E 1.5 S 1.5 W 1.5	≥ 0	Moderate-Good Moribund-Good	10+	≤ 2.04	C	<ul style="list-style-type: none"> Closely spaced group of mixed cypress varieties in garden border with lower shrubs One tree almost dead

BS5837 Tree survey schedule

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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
G5	4no. hawthorn 2no. common ash 1no. hazel 1no. Norway spruce 1no. black pine 1no. sycamore 1no. Norway maple 1no. horse chestnut <i>Crataegus monogyna</i> <i>Fraxinus excelsior</i> <i>Corylus avellana</i> <i>Picea abies</i> <i>Pinus nigra</i> <i>Acer pseudoplatanus</i> <i>Acer platanoides</i> <i>Aesculus hippocastanum</i>	≤ 260 250	Young to mature	≤ 6	N ≤ 2 E ≤ 2 S ≤ 2 W ≤ 2	≥ 0	Poor-Good Poor-Good	20+	≤ 4.3	C	<ul style="list-style-type: none">• Decorative group growing along driveway• Includes a short section of grown-out hawthorn hedge at northern end• Most of crowns intensively managed• Ash crowns exhibiting signs of mid-stage infection with ash dieback disease

BS5837 Tree survey schedule

Site Higher Newfield Edge, Stocks Lane, Middop, BB7 4JN

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G6	Goat willow						Good				
	Rowan										
	English oak										
	Sycamore										
	<i>Salix caprea</i>	≤ 350	Young to mature	≤ 12	N ≤ 4 E ≤ 4 S ≤ 4 W ≤ 4	≥ 1.5		20+	≤ 4.2	B	• Linear group growing along roadside
G7	<i>Sorbus aucuparia</i>						Good				
	<i>Quercus robur</i>										
	<i>Acer pseudoplatanus</i>										
	4no. hawthorn 1no. holly	≤ 240 230	Mature	≤ 9	N ≤ 3.5 E ≤ 3.5 S ≤ 3.5 W ≤ 3.5	≥ 0		10+	≤ 4	C	• Linear group growing along roadside • Northernmost tree evidently partially failed
	<i>Crataegus monogyna</i> <i>Ilex aquifolium</i>						Moderate-Good				

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G8	4no. noble fir						Moderate-Good				
	3no. European larch										
	3no. rowan										
	1no. hazel										
	1no. Scots pine	≤	Young to mature	≤	N ≤ 4.5 E ≤ 4.5 S ≤ 4.5 W ≤ 4.5	≥		20+	≤	B	<ul style="list-style-type: none"> Located on neighbouring land and therefore not accessed to inspect in detail Tree house built within eastern end of group One of larches and the pine topped due to overhead cables
	<i>Abies procera</i>	570		18		1			6.84		
	<i>Larix decidua</i>										
	<i>Sorbus aucuparia</i>						Good				
H1	<i>Corylus avellana</i>										
	<i>Pinus sylvestris</i>										
	Hawthorn						Good				
	Holly										
H1	<i>Crataegus monogyna</i>	≈	Young to mature	≤	N 2.5 E 2.5 S 2.5 W 2.5	0		10+	≈	C	<ul style="list-style-type: none"> Double-rowed boundary hedge comprising young holly in front of mature hawthorn Hawthorn previously laid Currently unmanaged
	<i>Ilex aquifolium</i>	150		7			Good		1.8		
H2	Leyland cypress						Good				
		≈	Semi-mature	≤	N 0.5 E 0.5 S 0.5 W 0.5	0.5		10+	≈	C	<ul style="list-style-type: none"> Intensively managed garden boundary hedge
	<i>Cupressus x leylandii</i>	100		3			Good		1.2		