Arboricultural Impact Assessment

Proposed remodelling and extension of existing dwelling

Whins Lodge
Whalley Old Road
Langho
BB6 8DU

January 2021

LAKELAND
TREE CONSULTANCY
ARBORICULTURAL PLANNING SPECIALIST

Page no.

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Appendices

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LAKELAND TREE CONSULTANCY
ARBORICULTURAL PLANNING SPECIALIST

Job no.:	LTC049
Site:	Whins Lodge, Whalley Old Road, Langho, BB6 8DU
Client:	Mr Myers
Architect:	Zara Moon Architects
Arboriculturist:	Jennie Keighley PhD MSc MArborA
Council:	Ribble Valley Borough Council
Date:	28 January 2021
Issue:	Final issue for planning

1. Executive Summary

1.1 This arboricultural impact assessment relates to a planning application at the above site for the demolition of the existing outbuildings and construction of a side extension.

1.2 Fourteen individual trees, ten groups of trees, three hedges and a woodland edge were surveyed in relation to the proposed works. The woodland edge was categorised as A-category, five trees and three groups were categorised as B-category, six trees, four groups and the hedges were categorised as C-category and three trees and three groups were categorised as U-category due to poor condition or compromised structural integrity.

1.3 Assessment of the tree data in relation to the proposed site plan provided indicates that construction of the development as proposed will require the removal of part of a B-category group, two C-category trees and one C-category hedge. One U-category tree and one U-category group are recommended for removal for reasons unrelated to the development proposals.

1.4 The development-related tree losses should be compensated for through replacement tree planting elsewhere on site, the specification, delivery and after-care of which should be conditioned to a planning approval.

1.5 The retained trees can be adequately protected by means of ground protection, BS5837-specification tree protection fencing, which should be erected as shown on the appended tree protection plan prior to any works on site, and by following the tree protection recommendations included herein.

2. Introduction

2.1 The client's architect, 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 of the existing outbuildings and construction of a side extension.

2.2 Arboriculturist Jennie Keighley PhD MSc MArborA visited the site on 20 August 2020 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*.

3. The Site and Tree Population

3.1 The site is located to the east of the village of Langho, Lancashire, and is currently comprised of a detached dwelling and its surrounding gardens (Figure 1). It is bounded to the north-east and south-west by woodland, to the south-east by agricultural pasture and to the north-west by Whalley Old Road, from which there are two existing vehicular access points.

Figure 1: Application site

3.2 The survey identified 14 individual trees, ten groups of trees, three hedges and a woodland edge potentially within influencing distance of the proposed 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. The woodland edge was categorised as high quality (A-category), five trees and three groups were categorised as moderate quality (B-category), six trees, four groups and the hedges were categorised as low quality (C-category) and three trees and three groups were categorised as unsuitable for retention (U-category) due to poor condition or compromised structural integrity.

4. The Development Proposal and Arboricultural Impact Assessment

4.1 The proposal plans provided (drawing numbers: 97.20 06; 07; 08; 09; 10, dated Jan 21), by Zara Moon Architects, indicate that the development proposal is for the demolition of the existing outbuildings and subsequent construction of a side extension as part of the wider remodelling of the existing residential dwelling. The extension comprises two-storeys, with living space at ground level and a garage and gym underneath, set below the ground floor level of the existing dwelling.

4.2 Details of proposed services or drainage have not been provided, however, it is anticipated that the extension will utilise existing supplies. If any new service routes or drainage runs are required, they should be positioned outside the root protection areas (RPAs) of retained trees.

4.3 Analysis of the proposal plan against the tree data shows that construction of the development as proposed will require the removal of part of a B-category group, two C-category trees and one small length of C-category hedge. One U-category tree and one U-category group are recommended for removal for reasons unrelated to the development proposals.

4.4 The B-category group requiring partial removal is G4, which could not be accessed during the tree survey, as it is fully enclosed by existing buildings and a steep slope. The trees within the group could, however, be adequately viewed from the windows of the existing garage (see photos a) and b), below) and from the upper level of the rear garden. There are estimated to be twelve trees within the group and their approximate stem locations are shown on the appended tree plans. Some of the trees are noted to have stems growing very close to the existing structure. Approximately six trees from the group are projected to require removal in order to facilitate the proposed demolition and construction works.

Photos a) and b), looking east into group G4 from inside the existing garage.
The group was inaccessible during the tree survey, so could not be inspected in detail.

4.5 The development-related tree losses (summarised below in Table 1) can be sufficiently compensated for through replacement tree planting elsewhere on site. The specification, delivery and after-care of proposed new tree planting should 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*.

Table 1: Arboricultural impacts of the proposed development

ID no.	BS5837 Category	Recommendation
T8	B	Prune to lift crown where overhanging driveway to create a 5m ground clearance for construction access, in accordance with BS3998 (2010)
T9	U	Remove due to risk of stem failure (not development related)
T11	C	Remove
T12	C	Remove
G3	C	Prune to lift crowns where overhanging parking area as required, in accordance with BS3998 (2010)
G4	B	Remove approximately 6no. trees from western side of group
G5	U	Remove due to poor condition associated with terminal infection with ash dieback disease (not development related)
H2	C	Remove
Total arboricultural impacts:		**Tree removals:** **≈ 6no. B-category trees** **2no. C-category trees** **1no. C-category hedge** **1no. U-category tree** **1no. U-category group** **Pruning works:** **1no. B-category tree** **1no. C-category group**

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 fencing should be erected as shown on the appended tree protection plan prior to any works on site, including deliveries. Once erected, the tree protection fencing should be labelled at regular intervals with all-weather notices stating 'TREE PROTECTION AREA - KEEP OUT!'. Any deviation from the default BS5837 fencing specification or setting-out indicated on the tree protection plan should be agreed in writing with the Local Authority Tree Officer prior to the commencement of any works on site.

Ground protection

5.3 Where RPAs cannot reasonably be excluded from the construction area using tree protection fencing, exposed soft-surfaced sections of RPA should be covered by ground protection in order to distribute load and help prevent soil compaction. Ground protection should be laid out as shown on the appended tree protection plan. An example specification of ground protection measures for use within tree RPAs is shown in the appended bulletin for Ground-Guards by Greentek. All ground protection should include a geotextile membrane and compressible layer (e.g. wood chip), as shown in the bulletin, but suitable alternatives to the above Ground-Guards boards could include scaffold boards or plywood sheets.

Preliminary arboricultural method statement

5.4 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).

As this arboricultural method statement is provided pre-determination, it should be considered preliminary until all design details, such as services, drainage and detailed construction specifications, are confirmed. It is therefore recommended that a detailed arboricultural method statement, to include a sequence of works and site monitoring schedule, be provided post-determination, should the development be approved.

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

Operation	BS5837 Guidance
Groundworks within RPA of T14	Existing retaining wall within RPA of tree T14 to be disassembled by hand in consultation with project arboriculturist to ensure tree is not destabilised. Void then to be in-filled with inert material to meet ground level of existing top garden before installation of tree protection fencing as indicated on the tree protection plan. To be carried out prior to any other works on site (excluding tree works).
Relocation of summerhouse	Access over RPAs to the new position of the summerhouse should be limited to foot traffic only, if possible. If vehicles are required to operate within RPAs, load-appropriate ground protection measures should be installed. To be carried out prior to installation of tree protection fencing.
Upgrading of hard surfaces	It is anticipated that the hard surface of the existing driveway will be upgraded. In order to protect tree roots growing underneath, existing sub-bases should be left *in situ* where within RPAs.
Installation of fence posts	Where within RPAs, fence post holes should be dug by hand and positioned so as to avoid substantial tree roots. Holes should be lined with an impermeable liner prior to the pouring of wet concrete to prevent toxic alkaline leachate from contaminating the rootzone.

General tree protection recommendations

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

- All tree works shall be carried out in accordance with British Standard 3998 (2010) *Tree work - Recommendations*
- Tree protection fencing and ground protection shall be installed before any works commence on site, with the exception of tree works and vegetation removal
- Once in place, the tree protection fencing and ground protection shall not be moved until the development is complete, unless authorised in advance by the Project Arboriculturist or Local Authority 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
- 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
- Construction 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 Local Authority
- 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
- Trees shall not be used as anchorage for equipment
- Notice boards, telephone cables, or 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
- Incidents with an impact or potential impact on trees shall be logged and reported to the Project Arboriculturist

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.

6.2 According to Ribble Valley Borough Council's website, the development site is not located within a Conservation Area and none of the surveyed trees are the subject of a TPO. However, the website does not offer a definitive, interactive TPO map, so it is advisable to approach the Council directly to check for any tree protection on site 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.

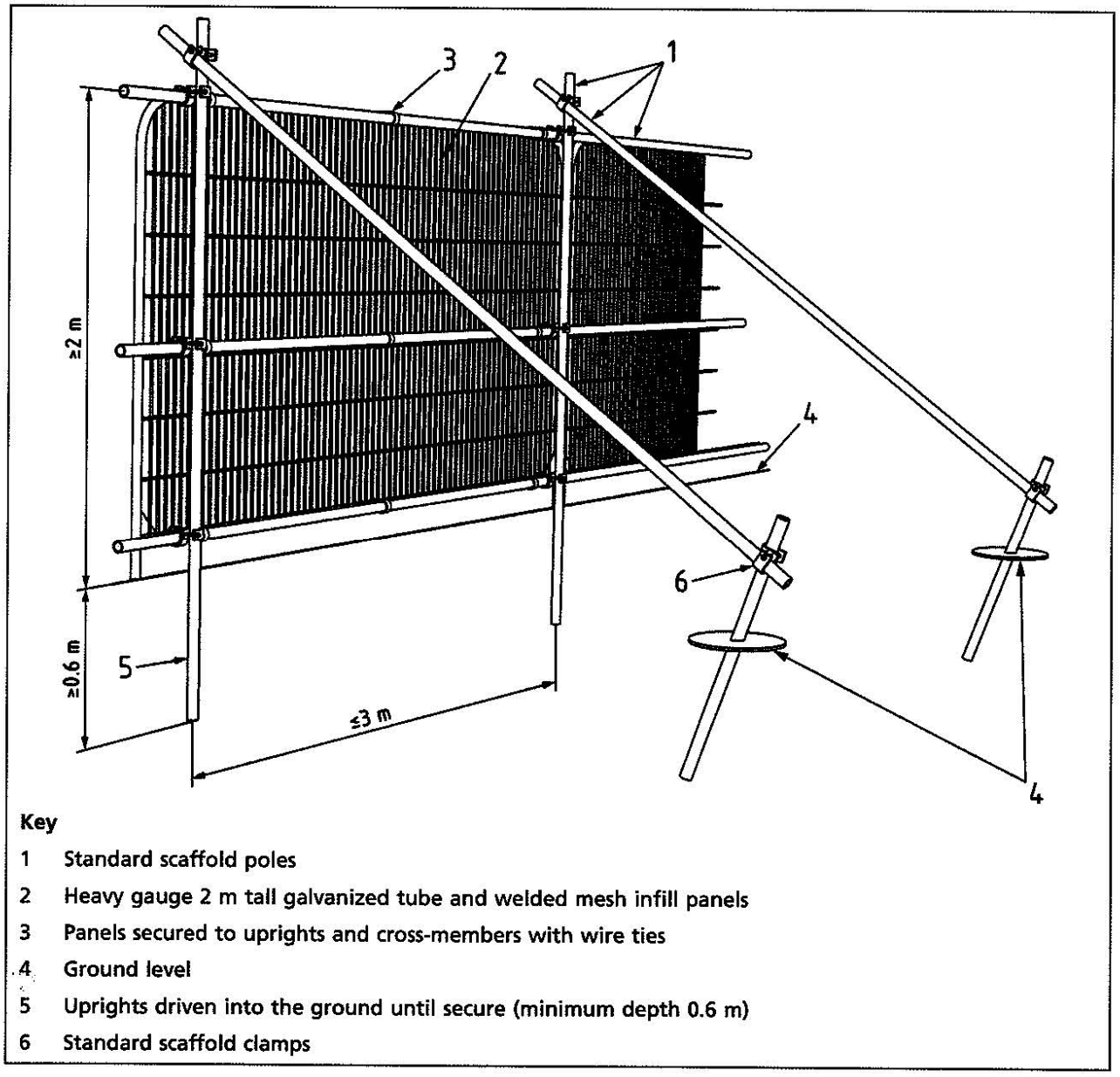
References

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

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

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

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.

Ground-Guards Bulletin

TREE ROOT PROTECTION DURING CONSTRUCTION PROJECTS

Ground-Guards

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The Department for Communities and Local Government's guide **"Tree Roots in the Built Environment"** states that ***"ground protection should be installed before any materials or machinery is brought onto the site"***(Section 9.3.3.2)

It has been shown that ***"the major contribution to soil compaction from vehicle movements comes from the first passes of vehicles over the ground"*** (Section 4.2.3)
Thus it is essential that ground protection is specified and installed from day one of construction projects.

Failure to protect the ground from compaction will lead to reduced water and oxygen infiltration to the tree roots, and can ultimately lead to the decline of the tree.

Ground protection is essential to maintain the health of tree roots on construction sites.

The use of GROUND-GUARDS for tree root protection

The **Ground-Guards** temporary roadway system is frequently used on construction sites to protect the ground from erosion and damage by construction vehicles. **Ground-Guards** are usually installed as a roadway consisting of a parallel track of 2.4m x 1.2m panels with a 1.2m space in between. Where a temporary roadway must pass near to trees, the following extra precautions must be taken in order to provide cushioning for the ground under the tree canopy:

Ground-Guard trackways should have additional cushioning installed where they pass near to trees.

1. **Edge rails of 200 x 50mm sawn timber should be installed where the trackway will pass under the tree canopy. These should be staked on either side of the trackway using 50 x 50x 500mm timber stakes at 1.5m spacings.**

2. **A layer of geotextile membrane should be laid to cover at least the area under the tree canopy, and preferably under the whole of the trackway.**

3. **A pad of Ground Guards, three boards wide should be laid on top of the geotextile membrane, between the timber rails.**

4. **A 150mm deep layer of wood chippings should be laid.**

5. **The twin trackway can then be laid so that it rises over the wood chippings as it passes under the tree canopy. Extra Ground-Guard boards should be installed in the gap between the twin trackway at this point to retain the wood chips in place.**

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 abbreviations in the tree survey schedule: -

T	**Tree**
G	**Group**
W	**Woodland**
H	**Hedge**

Y	**Young**
SM	**Semi-mature**
EM	**Early mature**
M	**Mature**
PM	**Post-mature**

RPA	**Root protection area**
#	**Estimated values**

The RPA is calculated according to the diameter of the tree's stem and represents the area where protection of the tree roots during development works is essential to the tree's future health and survival

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BS5837 Tree survey schedule					
Site	Whins Lodge, Whalley Old Road, Langho, BB6 8DU	**Surveyor**	Jennie Keighley PhD MSc MArborA	**Survey Date**	20 August 2020
Client	Mr Myers	**Conditions**	Bright sun, moderate wind	**Job no.**	LTC049

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	Weeping willow *Salix babylonica*	280	SM	12	N E S W	7 6 4 6	3	Moderate Moderate	10+	3.36	C	• Growing on island in pond • Young alder saplings growing around base • Significant deadwood in lower crown • Moderately thin crown and frequent branch tip dieback suggest tree may be in early stages of decline
T2	Sycamore *Acer pseudoplatanus*	540	M	19	N E S W	6.5 8 3 4	4.5	Good Good	20+	6.48	B	• Evidently topped in the past at a height of 8m; regrowth now well established • Minor deadwood to a diameter of 50mm and length of 5m
T3	Cotoneaster tree *Cotoneaster* Cornubia	6x80#	M	8.5	N E S W	5 2.5 2.5 2.5	1	Poor/ Moderate Good	<10	2.4	U	• Multi-stemmed from base • Dominant leader removed in the past at a height of 1m • Decay evidently spreading into remaining leaders from this wound • Limited remaining life expectancy of less than ten years

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T4	Plum *Prunus domestica*	330	PM	12	N E S W	5 3 3 3	1.75	Poor Moderate	<10	3.96	U	• Roots evidently severed on north-west side, 1.2m from base of tree, during construction of low retaining wall • Exhibiting signs of age related, internal stem decay • Numerous branches recently removed, possibly due to dieback • Limited remaining life expectancy of less than ten years
T5	Common alder *Alnus glutinosa*	280	SM	12	N E S W	4 3 2 3	2	Good Good	20+	3.36	C	• Slight stem lean east
T6	Plum *Prunus domestica*	100	Y	7	N E S W	0 4 2 0	2.5	Moderate/ Good Good	10+	1.2	C	• Slight stem lean south-east • Subordinate leader removed at a height of 2m • Crown biased away from neighbouring alder
T7	Sycamore *Acer pseudoplatanus*	530	M	17	N E S W	5 5 5 5	6	Good Good	20+	6.36	B	• Recent ground levels changes evident within RPA • Bifurcates at a height of 2m • Stems covered in moss and ivy, which inhibit full inspection

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T8	Common lime *Tilia* x *europaea*	620	M	20	N E S W	5 5 5 5	2	Moderate/ Good Good	20+	7.44	B	• Evidence of groundworks and root severance on west side of tree, close to base, which has potential to have affected tree's structural integrity
T9	Swedish whitebeam *Sorbus* x *intermedia*	590	PM	12	N E S W	5 5 5 5	2	Poor Poor	<10	7.08	U	• Advanced stem decay visible through a large opening on eastern side from base to crown • Stem leaning south-east, towards parking area • Limited remaining life expectancy of less than ten years • Advise removal due to risk of failure
T10	Sycamore *Acer pseudoplatanus*	760	M	18	N E S W	5 5 5 5	5	Good Good	20+	9.12	B	• Growth has evidently displaced corner of stone retaining wall at road frontage • Frequent minor deadwood
T11	Goat willow *Salix caprea*	280 210	M	9	N E S W	4 4 4 4	1.5	Good Good	10+	4.2	C	• Coppiced in the past at a height of 1.5m

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T12	Golden Lawson cypress *Chamaecyparis lawsoniana*	120#	Y	4	N E S W	0.75 0.75 0.75 0.75	0.5	Good Good	20+	1.44	C	• No significant visible defects
T13	Purple Norway maple Acer platanoides ‘Crimson King’	460	M	15	N E S W	5 5 5 3	1	Good Good	20+	5.52	B	• Slight stem lean south-east • Crown biased east, away from large neighbouring ash
T14	European larch *Larix decidua*	440	M	25	N E S W	3.5 3.5 3.5 3.5	0	Good Good	10+	5.28	C	• No significant visible defects
G1	2no. rowan *Sorbus aucuparia*	≤ 490	PM	≤ 14	N E S W	4.5 4.5 4.5 4.5	0	Poor Moribund	<10	≤ 5.88	U	• Larger tree’s leaders have failed from the primary union; only one upright leader remains • Smaller tree dying back, with significant deadwood and branch breakages • Both trees have limited remaining life expectancies of less than ten years

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G2	Rhododendron, Leyland cypress, Japanese cherry, Japanese maple, common alder, monkey puzzle, larch *Rhododendron* sp., *Cupressus* x *leylandii, Prunus serrulata, Acer palmatum, Alnus glutinosa, Araucaria araucana, Larix decidua*	≤ 390	Y-M	≤ 15	N E S W	≤ 4 ≤ 4 ≤ 4 ≤ 4	≥ 0	Moderate-Good Moderate-Good	10+	≤ 4.68	C	• Closely spaced, ornamental group growing in corner of site, beyond pond, in overgrown rockery area
G3	Pissard plum, elder, holly, rhododendron, laburnum, ash, magnolia, Japanese maple, privet, hawthorn, blackthorn *Prunus cerasifera, Sambucus nigra, Ilex aquifolium, Rhododendron* sp., *Laburnum anagyroides, Fraxinus excelsior, Magnolia* sp., *Prunus serrulata, Ligustrum* sp., *Crataegus monogyna, Prunus spinosa*	≤ 4x150#	Y-M	≤ 11	N E S W	≤ 4 ≤ 4 ≤ 4 ≤ 4	≥ 0	Poor-Good Moderate-Good	10+	≤ 3.6	C	• Closely spaced, ornamental group in shrub border at corner of site • Ash exhibiting symptoms of terminal infection with fungal pathogen ash dieback disease (*Hymenoscyphus fraxineus*)

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G4	≈ 12no. sycamore, downy birch, common alder *Acer pseudoplatanus, Betula pubescens, Alnus glutinosa*	≤ 500#	Y-M	≤ 20	N E S W	≤ 5 ≤ 5 ≤ 5 ≤ 5	≥ 0	Good Good	20+	≤ 6	**B**	• Unable to access area to inspect group • Surveyed from garden area to south-east and through garage windows
G5	≈ 6no. ash *Fraxinus excelsior*	≤ 500#	Y-M	≤ 18	N E S W	≤ 6 ≤ 6 ≤ 6 ≤ 6	≥ 1	Poor Poor	<10	≤ 6	**U**	• One mature tree and several young to semi-mature trees, all of which are exhibiting severe symptoms of terminal infection with fungal pathogen ash dieback disease • All have limited remaining life expectancies of less than ten years
G6	5no. Leyland cypress, 2no. sycamore *Cupressus* x *leylandii, Acer pseudoplatanus*	≤ 420	SM	≤ 16	N E S W	≤ 5 ≤ 5 ≤ 5 ≤ 5	≥ 1	Good Good	20+	≤ 5.04	**C**	• Closely spaced, linear group growing in corner of site atop retaining wall • No significant visible defects

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G7	3no. horse chestnut, 2no. common lime, 2no. sycamore *Aesculus hippocastanum, Tilia* x *europaea, Acer pseudoplatanus*	≤ 730	M	≤ 24	N E S W	≤ 9 ≤ 9 ≤ 9 ≤ 9	≥ 0	Good Good	20+	≤ 8.76	B	• No significant visible defects
G8	≈ 6no. Leyland cypress *Cupressus* x *leylandii*	≤ 370	Y-SM	≤ 15	N E S W	≤ 2.5 ≤ 2.5 ≤ 2.5 ≤ 2.5	≥ 0	Good Moderate-Good	10+	≤ 4.44	C	• Curving, linear group at garden edge • Two semi-mature trees with several young trees in between
G9	2no. horse chestnut *Aesculus hippocastanum*	≤ 760	M	≤ 18	N E S W	≤ 5 ≤ 5 ≤ 5 ≤ 5	≥ 1	Poor Moribund-Poor	<10	≤ 9.12	U	• Major wounding to both trees, including large stubs and unoccluded wounds • Larger tree has fruiting bodies of several different decay fungi around wounds, rhizomorphs of *Armillaria mellea* (honey fungus) visible extending from lower stem up primary leaders, chlorotic foliage, small leaves and twig dieback • Smaller tree has major decaying branch stubs, stem wounding and exuding bark lesions indicating *Phytophthora* infection • Both trees have limited remaining life expectancies of less than ten years • Large branch failures likely during decline

BS5837 Tree survey schedule					
Site	Whins Lodge, Whalley Old Road, Langho, BB6 8DU	**Surveyor**	Jennie Keighley PhD MSc MArborA	**Survey Date**	20 August 2020
Client	Mr Myers	**Conditions**	Bright sun, moderate wind	**Job no.**	LTC049

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
G10	2no. copper beech, 1no. sycamore, 1no. common lime *Fagus sylvatica* 'Purpurea', *Acer pseudoplatanus, Tilia* x *europaea*	≤ 590	EM-M	≤ 18	N E S W	≤ 6 ≤ 6 ≤ 6 ≤ 6	≥ 0.5	Good Good	40+	≤ 7.08	B	• No significant visible defects
H1	Rhododendron, cherry laurel, holly, lilac, laburnum *Rhododendron sp., Prunus laurocerasus, Ilex aquifolium, Syringa vulgaris, Laburnum anagyroides*	≈ 100	Y-M	≤ 6	N E S W	≈ 2 ≈ 2 ≈ 2 ≈ 2	0	Good Good	10+	≈ 1.2	C	• Mixed shrub border, partially managed as a hedge
H2	Privet, dogwood, hawthorn *Ligustrum ovalifolium, Cornus sanguinea, Crataegus monogyna*	≈ 6x25	M	≈ 3	N E S W	≈ 1.5 ≈ 1.5 ≈ 1.5 ≈ 1.5	0	Good Good	10+	≈ 0.7	C	• Predominantly privet • Formerly managed at a height of 1.5m • Not managed recently

BS5837 Tree survey schedule					
Site	Whins Lodge, Whalley Old Road, Langho, BB6 8DU	**Surveyor**	Jennie Keighley PhD MSc MArborA	**Survey Date**	20 August 2020
Client	Mr Myers	**Conditions**	Bright sun, moderate wind	**Job no.**	LTC049

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
H3	Hawthorn *Crataegus monogyna*	≈ 80	Y-SM	≤ 9	N E S W	≈ 2.5 ≈ 2.5 ≈ 2.5 ≈ 2.5	0	Good Good	20+	≤ 0.96	C	• Unmanaged boundary hedge
W1	Sycamore, Norway maple, horse chestnut, holly, rowan, English oak, common lime, elder, yew, rhododendron, cherry laurel, common alder *Acer pseudoplatanus, Acer platanoides, Aesculus hippocastanum, Ilex aquifolium, Sorbus aucuparia, Quercus robur, Tilia* x *europaea, Sambucus nigra, Taxus baccata, Rhododendron* sp.*, Prunus laurocerasus, Alnus glutinosa*	≤ 640	Y-M	≤ 26	N E S W	≤ 9.5 ≤ 9.5 ≤ 9.5 ≤ 9.5	≥ 0	Poor-Good Dead-Good	40+	≤ 7.68	A	• Mixed woodland block • Not accessed in full due to dense holly understorey

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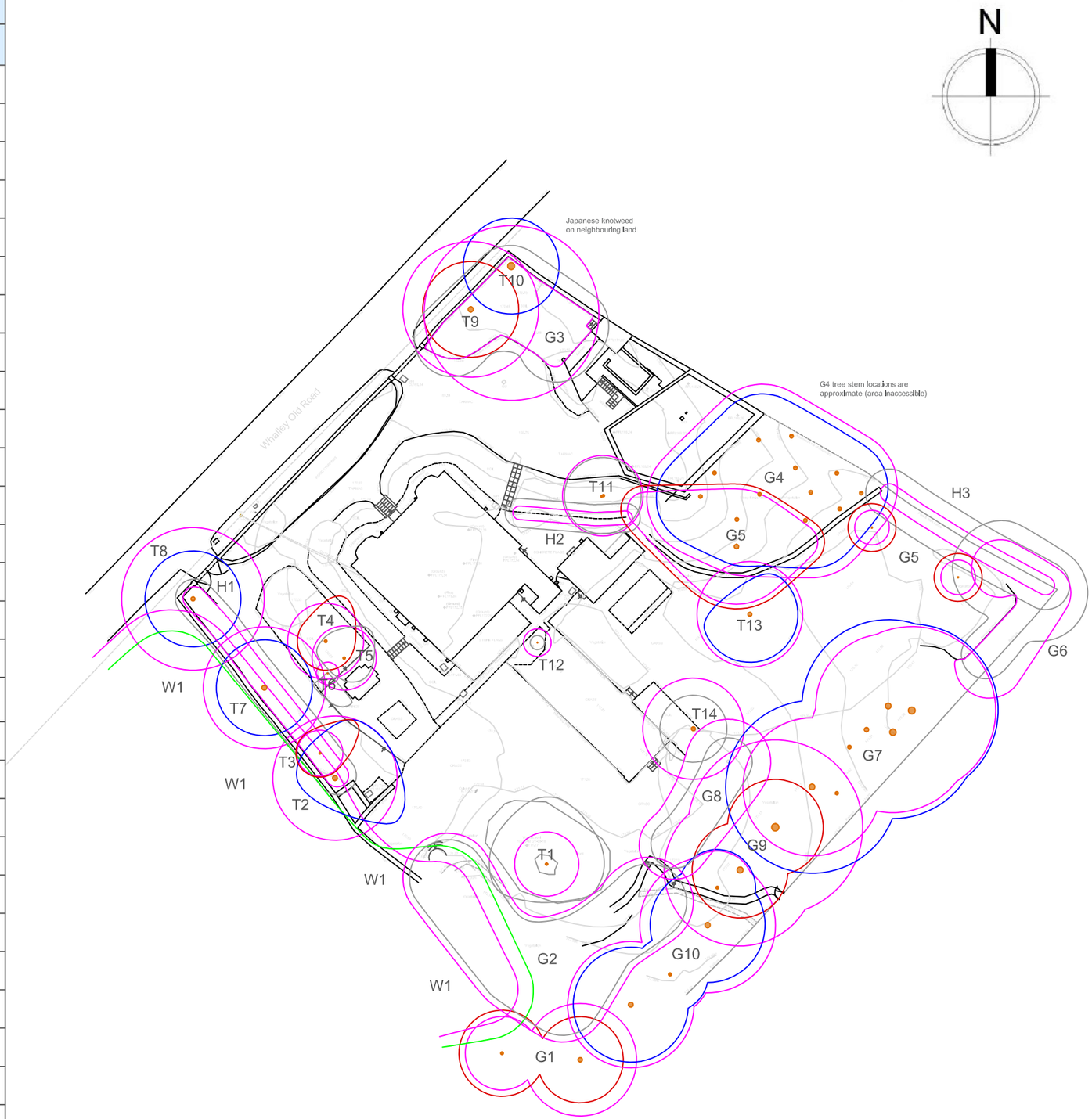
ARBORICULTURAL PLANNING SPECIALIST

Tree Survey Schedule Summary		
ID	Species	Cat.
T1	Willow	C
T2	Sycamore	B
T3	Cotoneaster	U
T4	Plum	U
T5	Alder	C
T6	Plum	C
T7	Sycamore	B
T8	Lime	B
T9	Whitebeam	U
T10	Sycamore	B
T11	Willow	C
T12	Cypress	C
T13	Maple	B
T14	Larch	C
G1	Rowan	U
G2	Various	C
G3	Various	C
G4	Sycamore, birch, alder	B
G5	Ash	U
G6	Cypress, sycamore	C
G7	Chestnut, lime, sycamore	B
G8	Cypress	C
G9	Chestnut	U
G10	Beech, lime, sycamore	B
H1	Various	C
H2	Privet, hawthorn, dogwood	C
H3	Hawthorn	C
W1	Various	A



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
H = hedge
W = woodland

Site:
Whins Lodge
Whalley Old Road
Langho
BB6 8DU

Client:
Mr Myers

Date:	August 2020
Scale:	1:500 at A3
Drawing:	LTC049-TSP
Drawn by:	JK

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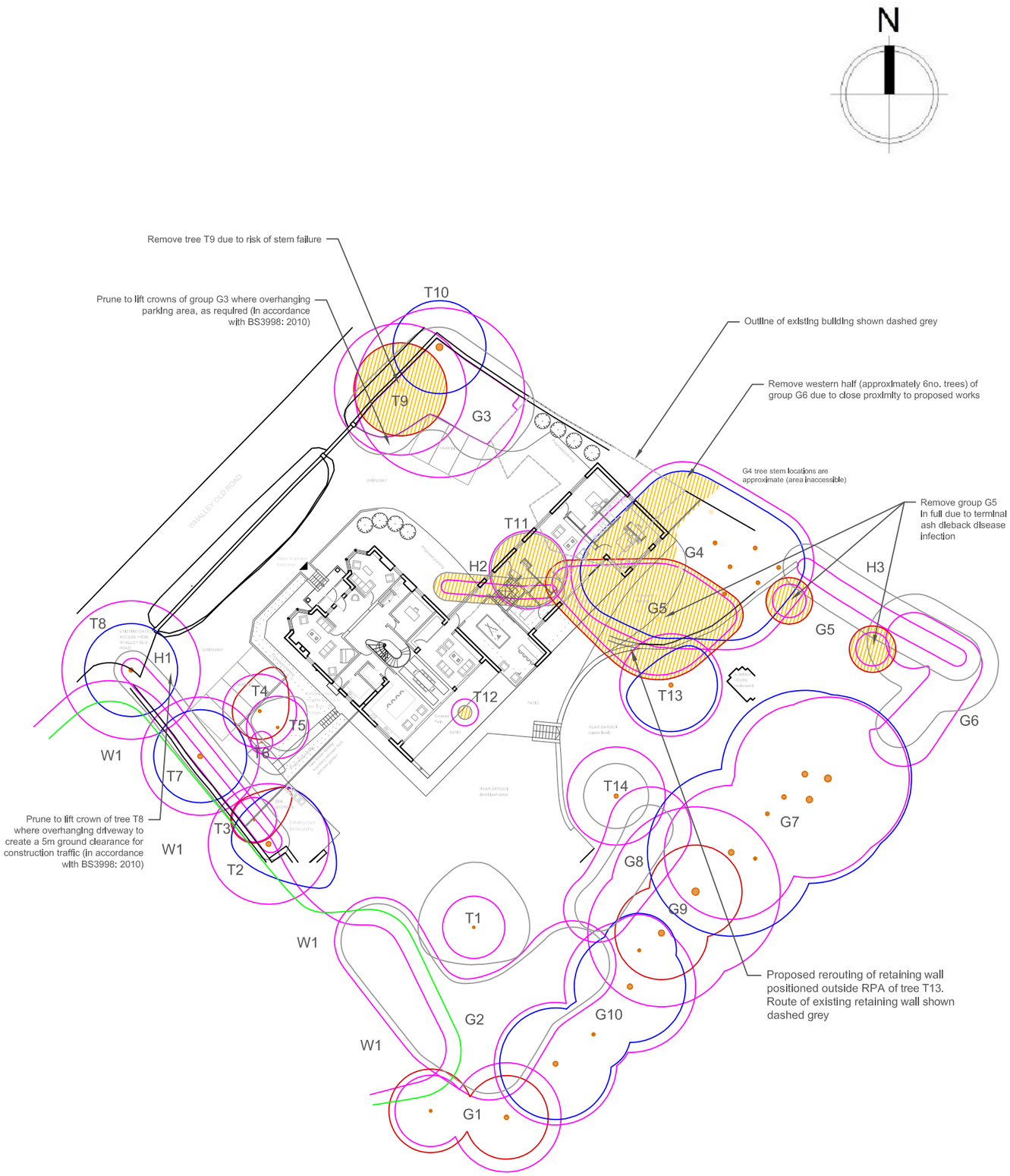
ARBORICULTURAL PLANNING SPECIALIST

Tree Survey Schedule Summary			
ID	Species	Cat.	Recommendation
T1	Willow	C	Retain
T2	Sycamore	B	Retain
T3	Cotoneaster	U	Retain
T4	Plum	U	Retain
T5	Alder	C	Retain
T6	Plum	C	Retain
T7	Sycamore	B	Retain
T8	Lime	B	Retain
T9	Whitebeam	U	Remove
T10	Sycamore	B	Retain
T11	Willow	C	Remove
T12	Cypress	C	Remove
T13	Maple	B	Retain
T14	Larch	C	Retain
G1	Rowan	U	Retain
G2	Various	C	Retain
G3	Various	C	Retain
G4	Sycamore, birch, alder	B	Remove half
G5	Ash	U	Remove
G6	Cypress, sycamore	C	Retain
G7	Chestnut, lime, sycamore	B	Retain
G8	Cypress	C	Retain
G9	Chestnut	U	Retain
G10	Beech, lime, sycamore	B	Retain
H1	Various	C	Retain
H2	Privet, hawthorn, dogwood	C	Remove
H3	Hawthorn	C	Retain
W1	Various	A	Retain



Tree Removal 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)
- Proposed tree removals

Identification numbers:

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

Site:
Whins Lodge
Whalley Old Road
Langho
BB6 8DU

Client:
Mr Myers

Date: January 2021
Scale: 1:500 at A3
Drawing: LTC049-TRP
Drawn by: JK

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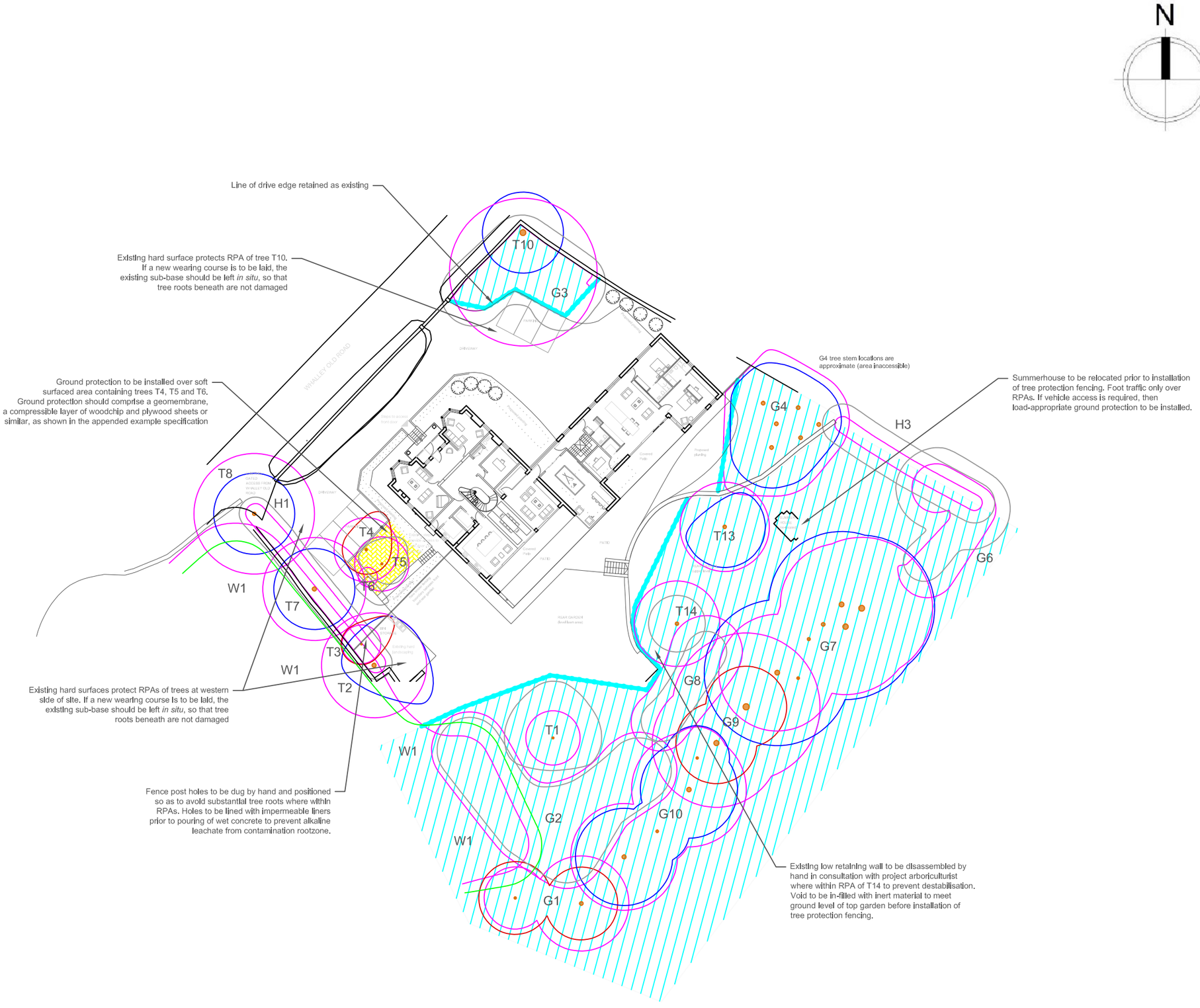
ARBORICULTURAL PLANNING SPECIALIST

Tree Protection 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)
- Construction exclusion zone and tree fencing
- Ground protection

Identification numbers:

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

Site:
Whins Lodge
Whalley Old Road
Langho
BB6 8DU

Client:
Mr Myers

Date: January 2021

Scale: 1:500 at A3

Drawing: LTC049-TPP

Drawn by: JK

LAKELAND TREE CONSULTANCY
ARBORICULTURAL PLANNING SPECIALIST