Arboricultural Impact Assessment

in Relation to an Outline Residential Development
Planning Application with all Matters Reserved
other than Vehicular Access/ Egress at

Land at Highmoor Farm, Clitheroe, Lancashire, BB7 1PN

Prepared by:

Bowland Tree Consultancy Ltd

June 2020

Control sheet

Project No.:	BTC1633
Site:	Land at Highmoor Farm, Clitheroe, Lancashire, BB7 1PN
Agent for Client:	Vernon & Co.
Council:	Ribble Valley Borough Council
Survey Dates:	24 October 2018 & 15 October 2019
Surveyed by:	Jennie Keighley PhD MSc MArborA & Elizabeth Thompson BSc(Hons) TechArborA
Prepared by:	Phill Harris MSc BSc(Hons) HND MArborA
Checked by:	Joseph Lambert BSc(Hons) FdSc ND MArborA
Date of Issue:	19 June 2020
Status:	First Issue for Client/Agent Review
Version No:	1

Contact Details

Bowland Tree Consultancy Ltd
Unit Two
First Floor
11 Cannon Street
Preston
Lancashire
PR1 3NR

T: 01772 437150
E: info@bowlandtreeconsultancy.co.uk

DISCLAIMER

Survey Limitations: Unless otherwise stated all trees are surveyed from ground level using non-invasive techniques, in sufficient detail to gather data for and inform the design of the current project only. The disclosure of hidden crown and stem defects, in particular where they may be above a reachable height or where trees are ivy clad or located in areas of restrictive ground vegetation, cannot therefore be expected. Detailed tree safety appraisals are only carried out under specific written instructions. Comments upon evident tree safety relate to the condition of said tree at the time of the survey only. Unless otherwise stated all trees should be re-inspected annually in order to appraise their on-going mechanical integrity and physiological condition. It should, however, be recognised that tree condition is subject to change, for example due to the effects of disease, decay, high winds, development works, etc. Changes in land use or site conditions (e.g. development that increases access frequency) and the occurrence of severe weather incidents are also significant considerations with regard to tree structural integrity, and trees should therefore be re-assessed in the context of such changes and/or incidents and inspected at intervals relative to identified and varying site conditions and associated risks. For these reasons the tree assessment advice only remains valid for one year from the date that the trees were last inspected.

Where trees are located wholly or partially on neighbouring private third-party land then said land is not accessed and our inspection is therefore restricted to what can reasonably be seen from within the site. Stem diameters and other measurements of trees located on such land are estimated. Any subsequent comments and judgments made in respect of such trees are based on these restrictions and are our preliminary opinion only. Recommendations for works to neighbouring third-party trees are only made where a potential risk to persons and/or property has been identified during our survey or, if applicable, where permissible works are required to implement a proposed development. Where significant structural defects of third-party trees are identified and associated management works are considered essential to negate any risk of harm and/or damage then we will inform the relevant Council of the matter. Where a more detailed assessment is considered necessary then appropriate recommendations are set out in the Tree Survey Schedule.

Where tree stem locations are not included on the plan(s) provided then they are plotted by the arboriculturist at the time of the survey using, where appropriate and/or practicable, a combination of measurement triangulation and GPS co-ordination. Where this is not possible then locations are estimated. Restrictions in these respects are detailed in the report.

This document is intended as a guide to identify key tree related constraints to site development only, and the potential influence of trees upon existing or proposed buildings or other structures resulting from the effects of their roots abstracting water from shrinkable load-bearing soils is not considered herein. The tree survey information in its current form should not therefore be considered sufficient to determine appropriate foundation depths for new buildings. Accordingly, an updated survey, with reference to the current NHBC Standards Chapter 4.2 - Building Near Trees, must therefore be prepared for the specific purpose of informing suitable foundation depths subsequent to planning approval being granted. The advice of a structural engineer must also be sought with regard to appropriate foundation depths for new buildings.

Third Parties: Any disclosure of this document to a third party is subject to this disclaimer. The report was prepared by Bowland Tree Consultancy Ltd at the instruction of and for use by our client. This report does not in any way constitute advice to any third party who is able to access it by any means. Bowland Tree Consultancy Ltd excludes to the fullest extent lawfully permitted all liability whatsoever for any loss or damage arising from reliance on the contents of this report.

CONTENTS **Page**

APPENDICES

PLAN

1.0 INTRODUCTION

Terms of Reference

1.1 Bowland Tree Consultancy Ltd were instructed to:

a) Survey, as individuals or by group, all trees having reasonable potential to affect or to be adversely affected by the proposed development of the site under consideration;
b) Annotate the proposed site plan to produce a Tree Constraints Plan, identifying tree retention categories, crown spreads, Root Protection Areas, etc.;
c) Prepare a tabulated Tree Survey Schedule based on guidance specified BS5837:2012 - Trees in Relation to Design, Demolition and Construction – Recommendations;
d) Evaluate the potential tree related impacts and design conflicts of the proposals, based on the supplied development proposal plan(s);
e) Advise on removal, retention and management options for the trees in the current context and in the context of the proposed development;
f) Advise on suitable retained tree protection measures required during development; and
g) Produce an Arboricultural Impact Assessment report outlining the main tree related issues and reasonably foreseeable tree impacts in relation to the proposals and indicating suitable compensation and mitigation provisions and retained tree protection measures.

Scope and Purpose of Report

1.2 By detailing foreseeable tree related issues this report is intended to assist the Local Planning Authority (LPA), in this case Ribble Valley Borough Council, in their review of the proposed development and, as such, should be supplied to them in support of the planning application to which it pertains. Essentially, it provides an initial analysis of the impacts that the proposed development is projected to have on trees located within the site and, where practicable, on land immediately adjacent to its boundaries. It also offers guidance on suitable retained tree management and compensation for projected losses, along with advice on appropriate tree protection measures in accordance with current guidance in the context of the proposals.

Site Visit, Data Collection and Tree Plans

1.3 Further to the instruction it is confirmed that a tree survey was carried out on 24 October 2018 and on 25 October 2019 in accordance with the preceding disclaimer, and all tree data collected on site is set out in the attached tabulated Tree Survey Schedule (TSS) at Appendix One which, for ease of interpretation, should be read alongside the appended BS5837:2012 Table 1.

1.4 The survey identified 27 individual trees (prefixed ‘T’), nine groups of trees (prefixed ‘G’), one woodland (prefixed ‘W’) and ten hedges (prefixed ‘H’), which have been numbered accordingly on the Tree Constraints Plan (TCP), as appended. The TCP, which details the existing site with the readily definable tree constraints, is based on a topographical survey plan that was provided in electronic format by the project agents, VH Land Partnerships Ltd, and, for the purpose of this report, we presume the provided plan’s details to be accurate.

1.5 The purpose of the TCP is to give an initial indication of the constraints that the trees present to site development, and should subsequently be used by the LPA’s tree specialist to preliminarily assess if the proposed development is viable in accordance with BS5837:2012 and, along with the information provided in this report, as a basis for the LPA to request further details regarding specific matters relating to trees at suitable stages in the planning process.

2.0 STATUTORY PROTECTION IN RESPECT OF TREES AND ASSOCIATED WILDLIFE

Tree Preservation Orders and Conservation Area Designations

2.1 The Town and Country Planning Act (1990) (the Act) and associated Regulations empower Local Planning Authorities (LPAs) to protect trees in the interests of amenity by making Tree Preservation Orders (TPOs). The Act also affords protection for trees of over 75 mm diameter that stand within the curtilage of a Conservation Area (CA). Subject to certain exemptions, an application must be made to the LPA in question to carry out works upon or to remove trees that are subject to a TPO, whilst six weeks' notice of intention must be given to carry out works upon or to remove trees within a CA that are not protected by a TPO.

2.2 According to Ribble Valley Borough Council's website, the site does not stand within a CA. However, the council's website does not include details of their TPOs, and it is therefore essential that the presence of any such statutory TPO protection at the site be checked directly with their planning department prior to scheduling or carrying out any tree works that are not directly related to, and subsequently authorised in accordance with, the implementation of a detailed (i.e. full) planning permission.

Protected Species

2.3 Nesting birds are afforded statutory protection under the Wildlife & Countryside Act (1981) (as amended) and their potential presence should therefore be considered when clipping hedges, removing climbing plants and pruning and removing trees. The breeding period for woodlands runs from March to August inclusive. Hedges provide valuable nesting sites for many birds and clipping should therefore be avoided during March to July. Trees, hedges and ivy should be inspected for nests prior to pruning or removal and any work likely to destroy or disturb active nests should be avoided until the young have fledged.

2.4 All bat species and their roosts are protected under Schedule 5 of the Wildlife & Countryside Act (1981) (as amended) and under Schedule 2 of the Conservation of Habitats & Species Regulations 2010 (as amended). In this respect it should be noted that it is possible that unidentified bat habitat features may be located high up in tree crowns and all personnel carrying out tree works at the site should therefore be vigilant and mindful of the possibility that roosting bats may be present in trees with such features. If any bat roosts are subsequently identified then it is essential that works are halted immediately and that a suitably qualified and experienced ecologist investigates and advises on appropriate actions prior to works continuing.

2.5 In turn, any subsequent works carried out in relation to any protected species must be carried out under guidance from a suitably qualified and experienced ecologist and in strict accordance with the guidance provided in BS42020:2013 - Biodiversity – Code of Practice for Planning and Development and, with regard to bats, in strict accordance with BS8596:2015 - Surveying for Bats in Trees and Woodlands.

Felling Licences

2.6 Subject to certain exemptions the Forestry Act (1967) requires that a 'Felling Licence' be obtained to remove growing trees amounting to more than five cubic metres of timber in a calendar quarter. Felling Licences are administered by the Forestry Commission and contravention of the associated controls can incur substantial penalties.

2.7 A felling licence is, however, not required for the felling of trees immediately required for the purpose of carrying out development authorised by a full (i.e. detailed) planning permission granted under the Town and Country Planning Act 1990.

3.0 THE SITE AND THE SURROUNDINGS

3.1 The site under consideration is located in a suburban rural edge area approximately 700 metres to the east of the Clitheroe town centre, and stands within the administrational boundaries of Ribble Valley Borough Council. It currently consists of a farm house and several associated out-buildings, farm tracks, pastureland fields, and various hedges, individual trees, groups of trees, and a woodland (see TCP).

3.2 It is bordered to the north-east by a woodland belt and hedgerow, immediately beyond which are pastureland fields, to the south-east by pastureland fields, to the south by several detached residential properties with gardens, to the south-west by an area of open public space, and to the west by multiple detached residential properties with gardens (see TCP).

3.3 The topographical survey plan provided indicates that ground levels at the site vary by up to approximately 11 metres from the lowest point to the north to the highest point to the east, as detailed on the TCP.

4.0 THE TREE POPULATION

4.1 As noted previously, a total of 27 individual trees, nine groups of trees, one woodland, and ten hedges were surveyed for the purpose of this appraisal. The trees range from young to mature in age, with heights up to approximately 25 metres, maximum diametrical crown spreads up to approximately 20 metres, and stem diameters up to approximately 1200 millimetres. Details regarding specific tree dimensions and other pertinent information, such as structural defects and physiological deficiencies, are included in the Tree Survey Schedule (TSS) at Appendix One.

4.2 In respect of the survey it should be noted that tree quality is categorised within the existing context without taking site development proposals into account. However, recommendations for works included in the TSS take both current site usage into consideration and the proposed site development where there are definable development related issues with regard to specific trees.

4.3 Under the UK's planning system trees are a material consideration in the planning and development process. Nonetheless, only trees of a suitable quality and value should be considered a material constraint to development. In this respect the TSS includes a column ('Cat. Grade') listing the trees' respective retention values, where they are rated either 'A', 'B', 'C' or 'U', as per BS5837:2012 Table 1 (Appendix One). 'A' category trees are those considered to be of 'high quality' and, accordingly, the most suitable for retention, whilst 'B' category trees are those considered to be of 'moderate quality', and 'C' category trees are those considered to be of 'low quality' with a correlated low retention value. In turn, 'U' category trees are those that are considered to be 'unsuitable for retention'.

Table A: BS5837-2012 Retention Categories of the Surveyed Trees & Groups

	Ret. Cats.	Tree/Group/Hedge/Woodland Numbers	Totals
Those of a moderate or high quality that should be afforded appropriate consideration in the context of development	**'A'**		-
	'B'	*T2, *T3, T7, T12, T14, *T27, G2, G8, *G9, W1	*6 Trees* *3 Groups* *1 Woodland*
Those of a low quality that should not be considered a material constraint to development	**'C'**	*T1, T5, T10, T13, T15, *T18, *T19, T20, T24, T25, G1, G3, G6, G7, *H1, H2, H3, H4, H5, H6, H7, H8, H9, H10	*10 Trees* *4 Groups* *10 Hedges*
Those that should be removed for sound management reasons regardless of site proposals	**'U'**	T4, T6, T8, T9, T11, T16, T17, T21, T22, T23, T26, G4, *G5	*11 Trees* *2 Groups*
			= 27 Trees, 9 Groups, 1 Woodland & 10 Hedges in Total

*Note: Items identified with an asterisk are evidently located on neighbouring land

4.4 As detailed in Table A (previous page), six trees, three groups and one woodland were categorised as moderate quality (i.e. 'B' category), ten trees, four groups and ten hedges were categorised as low quality (i.e. 'C' category), and eleven trees and two groups were classed as unsuitable for retention (i.e. 'U' category) regardless of the development proposals.

5.0 THE DEVELOPMENT PROPOSAL AND ITS PROJECTED ARBORICULTURAL IMPACTS

The Development Proposal

5.1 From the information provided to date it is understood that the application is for outline planning permission for a residential development with all matters reserved other than the vehicular access/egress. Accordingly, an Illustrative Masterplan (dated February 2020) to that effect, as prepared by Sten Architecture and appended at Plan Two, has been provided.

5.2 As indicated on the Masterplan the proposals are for a single vehicular access/egress point via the existing access point from Highmoor Park, to the site's south-west. However, it is noted that in order to accommodate the development as proposed is understood that it will be necessary to widen the access and, in turn, to encroach into the area of public open space to the south of the exiting access track.

5.3 As also indicated on the Masterplan the reserved matters proposals are for a residential development with internal access roads, an attenuation basin, a pedestrian footpath/cycleway, and several areas of connected public open space.

Projected Arboricultural Losses Relating to the Development Proposals

5.4 In order to make an initial assessment of the tree related impacts of the proposed development the Masterplan was compared against the TCP. From this appraisal it is initially projected that the development as it stands includes the provision to incorporate the majority of the larger trees that stand to the site boundaries into areas of either public open space or suitably sized gardens.

Table B: Projected Arboricultural Impacts of Proposed Development & Other Tree Removal Proposals

	Ret. Cats.	Removals necessary to implement development	Removals recommended regardless of development	Total no. of removals
Those of a high quality that should be afforded appropriate consideration in the context of development	**'A'**	-	-	-
Those of a moderate quality that should be afforded appropriate consideration in the context of development	**'B'**	G2 (part)	-	*1 part Group*
Those of a low quality that should be afforded appropriate consideration in the context of development	**'C'**	T5, T13, T15, T24, *G1, G3, H2 (part), H3 (part), H6 (part), H8	-	*4 Trees* *2 Groups* *3 part Hedges* *1 Hedge*
Those that should be removed for sound management reasons regardless of plans	**'U'**	-	T4, T6, T8, T9, T11, T16, T17, T21, T22, T23, T26, G4, *G5	*11 Trees* *2 Groups*
Totals		*4 Trees* *2 Groups* *1 Part Group* *3 Part Hedges* *1 Hedge*	*11 Trees* *2 Groups*	***= 15 Trees, 4 Groups, 1 part Group, 1 Hedge & 4 Part Hedges in Total***

*Denotes trees, groups and hedges located on areas(s) of neighbouring third-party owned land, whereby it will be necessary to enter into consultation with the respective land-owner(s) regarding projected impacts and associated removals

5.5 In turn, as detailed in Table B, above, from the information provided to date it is initially estimated that delivery of the proposed development will require the removal of part of one moderate quality (i.e. 'B' category) group, four low quality (i.e. 'C' category) trees, two low quality groups, one low

quality hedge and parts of three further low quality hedges. Additionally, as also detailed in Table B, eleven trees and two groups are considered unsuitable for retention as they have relatively short projected remaining life expectancies of less than ten years due to the presence of substantial structural defects and/or significant physiological decline.

5.6 In respect of the projected impacts it is essential to note that the low quality (i.e. 'C' category) group of trees that is projected to require removal in order to form the widened vehicular access point (i.e. group G1) is located within a neighbouring area of public open space to the west of the site (see TCP) and, as such, is subsequently understood to be under the ownership of Ribble Valley Borough Council. As such, it will be essential to consult with the council regarding the loss of this group and, in turn, agree on suitable compensatory provisions.

Retention of Existing Trees in the Context of the Development Proposal

5.7 It is essential that, should outline planning permission be granted, the subsequent reserved matters proposals submitted include adequate provision for the incorporation of better quality trees into the design wherever possible, along with sufficient detail regarding the specifics of how these trees are to be retained successfully (e.g. through the protection of their Root Protection Areas, as discussed in section 6).

5.8 In turn, these matters can be effectively and efficiently considered, safeguarded and controlled at the reserved matters application stage via a set of suitably worded conditions attached to an outline planning approval.

Compensation for Projected Arboricultural Losses as Part of the Scheme's Landscaping

5.9 As indicated on the Illustrative Masterplan, the scheme includes sufficient space for extensive new tree planting within the proposed areas of public open space, in particular to the site's north-western boundary, thereby providing a suitable opportunity to substantially increase the tree cover and its species and age diversity within the site boundaries.

5.10 Accordingly, the provision and delivery of a high-quality landscape scheme, with the inclusion of a suitable number of new trees, shrubs and hedges planted in areas of public open space, is projected to adequately compensate for the identified necessary losses.

5.11 Consequently, specific details regarding replacement tree planting, as part of a landscaping scheme, should be prepared by a suitably qualified and experienced landscape architect in accordance with the guidance listed herein at paragraphs 7.5 and 7.6. Accordingly, the provision of and adherence to a detailed landscape proposal plan can be assured through the imposition of a suitably worded condition attached to a planning approval.

5.12 In turn, the landscape proposal plan should be prepared in strict accordance with any relevant government guidance, specifically BS8545:2014 - Trees: From Nursery to Independence in the Landscape – Recommendations, and section 5.6 and Table A.1 of BS5837:2012.

6.0 RECOMMENDATIONS FOR SUCCESSFUL TREE RETENTION IN THE CONTEXT OF DEVELOPMENT

Root Protection Areas and Construction Exclusion Zones

6.1 Adequate protection of the Root Protection Areas (RPAs) of retained trees during construction is essential if their long-term viability is to be assured. RPAs, which are calculated through a method provided in BS5837:2012, are ground areas that should be protected by temporary protective fencing as Construction Exclusion Zones (CEZs) throughout the development

process, thereby keeping the trees' root zones free from disturbance. Consequently, the RPA distances, as detailed in the TSS (see 6.2) and on the TCP, give an idea of the on-site below-ground constraints in respect of tree roots and assist in planning for appropriate tree retention in relation to feasible development.

6.2 The TSS includes two columns listing the RPAs of the individually surveyed trees and, where applicable, the largest of the trees in any surveyed groups as overall areas in square metres and as radial distances. The RPAs are indicated as magenta coloured circles on the TCP.

6.3 With regard to CEZs the design, materials and construction of the fencing should be appropriate for the intensity and type of site construction works, should conform to at least section 6.2 of BS5837:2012, and should be secured by the imposition of a suitably worded planning condition. A default Temporary Protective Fencing Specification is included at Appendix Two.

Underground Utilities and Drainage

6.4 The installation of underground utilities in close proximity to trees can cause serious damage to their roots. As such, it is essential that utilities be routed outside RPAs unless there is no other available option. Where RPAs cannot be avoided then guidelines set out in the National Joint Utilities Group publication 'Volume 4: NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (Issue 2) – Operatives Handbook' should be followed (e.g. trenches of a very limited width to be hand dug or the use of directional drilling).

6.5 To date, no service plan showing proposed service and/or drainage runs has been provided in respect of the development under consideration. Nonetheless, illustrated master plan provided indicates that, if correctly planned, there should be sufficient space to run the services and drainage outside the RPAs of retained trees. In turn, in order to ensure that this advice is adhered to, the provision of a service plan, with all service runs and drainage routed outside retained tree RPAs, can be conditioned to a planning approval.

Arboricultural Method Statement and Tree Protection Plan

6.6 Government guidance recommends that, where considered expedient by the LPA, an Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP) be prepared detailing construction issues pertinent to retained trees in relation to the development under consideration. Essentially, the AMS and TPP describe, in detail, the procedures, working methods and protective measures to be used in relation to retained trees in order to ensure that they are adequately protected during the construction process

6.7 In order to ensure that any such special working methods are followed, and that the retained trees are adequately protected throughout the development process, the production of and adherence to an AMS and TPP can be conditioned to a planning approval for delivery as a component the reserved matters application.

7.0 OTHER RECOMMENDATIONS

Non-Development Related Tree Works and Recommendations

7.1 Any general management pruning works for retained trees that are stated to be non-development related, as detailed in the TSS, are recommended in accordance with prudent arboricultural management and should therefore be carried out regardless of any site development proposals and potential changes in land usage. All tree works should be carried out in accordance with BS3998:2010 - Tree Work – Recommendations.

Tree Work Related Consents

7.2 No tree pruning or removal works should commence on site until necessary consents have been obtained from the LPA as part of a planning approval or in respect of any statutory tree protection (e.g. TPOs).

Arboricultural Contractors

7.3 All tree works should be carried out by suitably qualified and experienced arboricultural contractors carrying appropriate public liability insurance cover and be implemented to the minimum current CE and UK industry standards and in accordance with industry codes of practice. Only certificated personnel should, in accordance with The Control of Pesticides Regulations, apply any pesticides.

Contractors and Subsequently Identified Tree Defects

7.4 Tree contractors should be made aware that, should any significant tree defects become apparent during operations that would not have been immediately obvious to the surveyor, then such defects should be notified immediately to the client and subsequently confirmed to the consultant within five working days.

New Tree Planting

7.5 All tree planting at the site should be carried out in accordance with BS8545:2014 Trees: from nursery to independence in the landscape – Recommendations, and in accordance with the guidance detailed in section 5.6 and Table A.1 of BS5837:2012.

Landscaping Within and Close to Retained Trees' RPAs

7.6 Any landscaping carried out within and close to retained trees' RPAs should be carried out in strict accordance with the guidance detailed in section 8 of BS5837:2012. As is the case with 7.5, above, a requirement for these works to conform with the current guidance detailed in BS5837:2012 can be conditioned to a planning approval.

Retained Tree Management

7.7 Any tree risk management appraisals and subsequent recommendations made in this report were based on observations and site circumstances at the time of the survey. Trees are dynamic living organisms whose structure is constantly changing and even those evidently in good condition can succumb to damage and/or stress.

7.8 In this respect, it should be noted that, under the Occupiers' Liability Act (1957 & 1984), site occupants have a duty of care to take reasonable steps to prevent or minimise the risk of personal injury and/or damage to property from any tree located within the curtilage of the land they occupy. In turn, it is accepted that these steps should normally include commissioning a qualified and experienced arboriculturist to survey their trees in order to identify any risk of harm to persons or damage to property that they may present and, where unacceptable risks are identified, taking suitable remedial action to negate those risks.

8.0 SUMMARY AND CONCLUSIONS

8.1 Twenty-seven individual trees, nine groups of trees, one woodland and ten hedges were surveyed at the site under consideration in respect of an outline residential development proposal with all matters reserved other than the proposed vehicular access.

8.2 Six of the surveyed trees, three groups and the woodland were categorised as moderate quality, ten trees, four groups, and ten hedges were categorised as low quality, and 11 trees and two groups were classed as unsuitable for retention.

8.3 As detailed on the Illustrative Masterplan the proposals are for a single vehicular access/egress point from the western boundary off Highmoor Park, whilst the reserved matters proposals are for a residential development with internal access roads, areas of connected public open space and a pedestrian footpath.

8.4 An appraisal of the documentation provided to date identified that, providing that sufficient provision is given to the incorporation of trees into the design for the reserved matters application, it is estimated that implementation of the development as proposed will require the removal of part of one moderate quality group, four low quality trees, two low quality groups, one low quality hedge and parts of three further low quality hedges.

8.5 With regard to retained trees it is essential that, should outline planning permission be granted, the subsequent reserved matters proposals submitted include adequate provision for the incorporation of existing trees, where possible, into the design, along with sufficient detail regarding the specifics of how these trees are to be retained successfully.

8.6 In turn, these matters can be effectively and efficiently considered, safeguarded and controlled at the reserved matters application stage via a set of suitably worded conditions attached to an outline planning approval.

8.7 As indicated on the Masterplan the scheme includes sufficient space for extensive new tree planting, in particular in areas of proposed public open space, thereby providing a suitable opportunity to increase tree cover and species and age diversity within the site boundaries and, as a result, adequately compensating for the identified necessary losses.

8.8 Consequently, the delivery of a high quality landscaping scheme can be guaranteed through the imposition of a suitably worded condition attached to an outline planning approval.

8.9 In order to ensure that the retained trees throughout the site are adequately protected throughout the development process, in strict accordance with current Government guidance and the recommendations included herein, the production of and adherence to a suitably detailed Arboricultural Method Statement and Tree Protection Plan can be conditioned to an outline planning approval.

8.10 Nonetheless, it should also be noted that all site works discussed herein must also be carried out in strict accordance with specific advice and recommendations made by the project ecologist where applicable and, in turn, in accordance with current government guidance relating to biodiversity, wildlife and development.

REFERENCES

BS42020:2013 - Biodiversity – Code of Practice for Planning and Development. BSI British Standards, London.
BS8596:2015 - Surveying for Bats in Trees and Woodlands. BSI British Standards, London.
BS8545:2014 - Trees: From Nursery to Independence in the Landscape – Recommendations. BSI British Standards, London.
BS3998:2010 - Tree Work - Recommendations. BSI British Standards, London.
BS5837:2012 - Trees in Relation to Design, Demolition and Construction – Recommendations. BSI British Standards, London.

National House Building Council (2017). NHBC Standards Chapter 4.2 - Building Near Trees. NHBC, Amersham.
National Joint Utilities Group (2007). Volume 4: NJUG Guidelines For The Planning, Installation And Maintenance Of Utility Apparatus In Proximity To Trees (Issue 2) – Operatives Handbook.

APPENDICES

TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT APPRAISAL		Surveyors:	Jennie Keighley PhD MSc MArborA & Elizabeth Thompson BSc(Hons) TechArborA	Page: 1 of 8
Site:	Land at Highmoor Farm, Clitheroe, Lancashire, BB7 1PN	Survey Dates:	24 October 2018 & 15 October 2019	
Client:	VH Land Partnerships Ltd	Job Ref:	BTC1633	

No.	Species	Height	Stem Diam.	Branch Spread		Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m²)	RPA Radius (m)
T1	Lawson Cypress	9	250#	N E S W	2.5 2.5 2.5 2.5	1 0	EM	G	▪ Located in neighbouring garden and therefore not inspected in detail. ▪ No significant visible defects.	▪ Ensure access road design proposals allow for protection of tree's Root Protection Area (RPA) and crown throughout development process.	10+	C1	28	3
T2	Common Ash	10	350#	N E S W	4.5 4.5 4.5 4.5	2.2-NW 2	EM	G	▪ Located in neighbouring garden and therefore not inspected in detail. ▪ No significant visible defects.	▪ Ensure access road design proposals allow for protection of tree's RPA and crown throughout development process.	20+	B1	55	4.2
T3	Sycamore	12	220#	N E S W	5 5 5 5	3-E 4	SM	G	▪ Located in neighbouring garden and therefore not inspected in detail. ▪ No significant visible defects.	▪ Ensure access road design proposals allow for protection of tree's RPA and crown throughout development process.	20+	B1	22	2.64
T4	Common Ash	7.5	1x210 1x190 1x180 (ms)	N E S W	2 3 4 4	2-W 2	SM	MD	▪ Stem trifurcates at base. ▪ Stems topped in past at heights around 6m. ▪ Regrowth exhibiting multiple symptoms of effects of colonisation by Ash Dieback Disease (*Hymenoscyphus fraxineus*). ▪ Short projected life expectancy of less than ten years.	▪ Remove tree due to short projected remaining life expectancy resultant of colonisation by Ash Dieback Disease.	<10	U	51	4.03
T5	Common Ash	25	650#	N E S W	12 7 8 4	10-N 4	M	M	▪ Growing in hedge. ▪ Stem bifurcates at a height of 5m. ▪ 300mm diameter primary branch tear out wound at a height of 13m on eastern side. ▪ Occasional deadwood to a diameter of 100mm. ▪ Crown heavily biased north. ▪ Crown exhibiting multiple symptoms of effects of colonisation by Ash Dieback Disease.	▪ Remove tree in context of proposed site development.	10+	C1	191	7.8

Headings and Abbreviations:

No. Allocated sequential reference number - Tree ('T'), Group ('G'), Woodland ('W') or Hedge ('H') reference number - refer to plan and to numbered tags where applicable
Species: Common name
Height: In metres, to nearest half metre – where possible approximately 80% are measured using an electronic clinometer and the remainder estimated against the measured trees. In the case of Groups and Woodlands the measurement listed is that of the highest tree
Stem Diam.: Stem diameter in millimetres, to nearest 10mm - measured and calculated as per Annex C of BS5837:2012. MS = multi-stemmed, TS = twin-stemmed
Branch Spread: Crown radius measured (or estimated where considered appropriate) from the four cardinal points (north, east, south and west) to give an accurate visual representation of the crown
Branch & Canopy Clearances: Existing height above ground level, in metres, of first significant branch and direction of growth (e.g. 2.5-N) and of canopy at lowest point – to inform on crown to height ratio, potential for shading, etc.
Life Stage: Estimated age class - Y = young, SM = semi-mature, EM = early-mature, M = mature, PM = post-mature
PC: Physiological Condition - a measure of the tree'(s)' overall vitality, i.e. D = Dead, MD = Moribund, P = Poor, M = Moderate, G = Good
General Observations and Comments: Comments relating to the tree'(s)' overall condition and any other pertinent factors including structural defects, current and potential direct structural damage, physiological decline, poor form, etc.
Management Recommendations: Either Preliminary or In Consideration of the Proposal - In the case of Arboricultural Constraints Surveys the recommended management works only take exiting site and tree circumstances and conditions into account and not proposed developments. Arboricultural Impact Assessment and Method Statement related Surveys take the proposed development into consideration with recommendations made accordingly. More than one option may be given if considered appropriate
ERC: Estimated Remaining Contribution - in years as per BS5837:2012 (i.e. <10, 10+, 20+, 40+)
Cat. Grade: Category Grading - tree retention value listed as U, A, B or C - in accordance with BS5837:2012 Table 1
RPA m²: Root Protection Area in m² - calculated area around the tree that must be appropriately protected throughout the development process in order avoid root damage
RPA Radius (m): Root Protection Area Radius - in metres measured from the centre of the stem to the line of tree protection
 # (Estimated Dimensions): Where trees are located off-site, or are inaccessible for any other reason, and accurate measurements or other information cannot be taken then the information provided is estimated and is duly suffixed with a "#" symbol

No.	Species	Height	Stem Diam.	Branch Spread		Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m²)	RPA Radius (m)
T6	Common Alder	17	700#	N E S W	5 6 4 4	4-E 1.75	M	MD	▪ Stem completely hollow with stem split vertically into two parts down to a height of 2m, but currently still standing upright. ▪ Failure of stem(s) considered imminent. ▪ Growing by side of public right of way. ▪ Very heavy ivy to upper crown. ▪ Ivy-covered Elder growing from south side of base.	▪ Remove tree due to projected stem failure and subsequent risk of harm to persons using adjacent public right of way. NB: Tree should be removed as soon as is practicable.	<10	U	222	8.4
T7	Common Alder	15	800#	N E S W	8 10 4 6	4-N 3	M	G	▪ Growing in hedge. ▪ Heavy basal epicormics have been flailed on road side. ▪ Light ivy growing to lower crown. ▪ Frequent burrs on stem and branches. ▪ Crown biased away from neighbouring Ash.	▪ Ensure subsequent development design proposals allow for retention of tree and protection of its RPA and crown throughout development process.	20+	B1	290	9.6
T8	Common Ash	20	800#	N E S W	8 3 7 9	3-S 4	M	P	▪ Growing in hedge. ▪ Heavy ivy load growing to upper crown completely impedes inspection of mid-stem and primary branches. ▪ Sparse crown with branches expected to have been lost, but wounds potentially masked by ivy. ▪ Crown exhibiting multiple symptoms of effects of colonisation by Ash Dieback Disease. ▪ Many branch tips have been lost. ▪ Frequent attached deadwood to a diameter of 100mm. ▪ Short projected life expectancy of less than ten years.	▪ Remove tree due to short projected remaining life expectancy resultant of colonisation by Ash Dieback Disease.	<10	U	290	9.6
T9	Common Ash	22	900#	N E S W	7 9 9 9	5-N 5	M	MD	▪ Growing in hedge. ▪ Lower crown expressing a slight reduction in vitality during February 2017 survey. ▪ Crown exhibiting multiple symptoms of effects of colonisation by Ash Dieback Disease. ▪ Relatively heavy epicormic growth on lower branches. ▪ Occasional deadwood to a diameter of 80mm. ▪ Short projected life expectancy of less than ten years.	▪ Remove tree due to short projected remaining life expectancy resultant of colonisation by Ash Dieback Disease.	<10	U	366	10.8
T10	Common Alder	12	630	N E S W	7 7 5 6	2-S 2	M	M	▪ Very heavy ivy load has been cut and is now dead, but significantly impeded inspection. ▪ Several tertiary branch failures to a diameter of approximately 150mm. ▪ Occasional attached deadwood to a diameter of approximately 150mm. ▪ Very small leaves for species. ▪ Evidently in early stages of decline.	▪ Ensure subsequent development design proposals allow for retention of tree and protection of its RPA and crown throughout development process. ▪ Remove ivy from stem and branches.	10+	C1	180	7.56

No.	Species	Height	Stem Diam.	Branch Spread		Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m²)	RPA Radius (m)
T11	Common Ash	23	1030	N E S W	5 9 9 9	5-W 2	PM	P	▪ In an advanced stage of decline. ▪ Crown exhibiting multiple symptoms of effects of colonisation by Ash Dieback Disease. ▪ Approximately 350mm diameter secondary branch torn out at a height of approximately 7m and failed into neighbouring field. ▪ Numerous other smaller failures throughout crown and *Daldinia concentrica* (saprophytic wood decay fungus) fruiting bodies growing on some stubs. ▪ Light ivy to mid-stem on western side. ▪ Short projected life expectancy of less than ten years.	▪ Remove tree due to short projected remaining life expectancy resultant of colonisation by Ash Dieback Disease.	<10	U	480	12.36
T12	Common Ash	24	1200#	N E S W	11 11 11 11	4 3	M	G	▪ Growing in hedge. ▪ Very occasional deadwood to a diameter of approximately 80mm. ▪ October 2019 survey showed crown to be exhibiting good vitality compared to neighbouring Ash trees, the majority of which are evidently succumbing to Ash Dieback Disease.	▪ Ensure subsequent development design proposals allow for retention of tree and protection of its RPA and crown throughout development process. ▪ Monitor tree for decline in order to determine if it is resilient to Ash Dieback Disease.	20+	B1	651	14.4
T13	Crab Apple	6	170	N E S W	3 3 3.5 3.5	1.7-SE 1.5	EM	M	▪ Approximately 400mm x 30mm partially occluded mid-stem wound. ▪ Two crown lift pruning wounds at a height of approximately 1.75m are occluding well.	▪ Remove tree in context of proposed site development.	10+	C1	13	2.04
T14	Horse Chestnut	13	400	N E S W	6 7 7 6	2 1.5	EM	G	▪ Distortion to bark on lower stem evidently from a history of abrasion from livestock. ▪ Stem trifurcates at a height of 2m. ▪ Crown lifted from over garden at least twice in the past and wounds unoccluded.	▪ Ensure subsequent development design proposals allow for retention of tree and protection of its RPA and crown throughout development process.	20+	B1	72	4.8
T15	Purple Cherry Plum	10	270	N E S W	5 3.5 4 4	2.5-S 1.25	M	G	▪ Stem bifurcates at a height of approximately 1.75m with an included bark union. ▪ Crown lifted.	▪ Remove tree in context of proposed site development.	10+	C1	33	3.24
T16	Common Ash	8.5	170	N E S W	2 1 2.5 2.5	1.7-N 1.75	Y	G	▪ Growing in a 1.4m wide gap between two farm buildings. ▪ Crown in contact with buildings. ▪ Stem base pushing up paving slabs. ▪ Limited future potential for growth.	▪ Remove tree due to conflict with built structures.	<10	U	13	2.04

No.	Species	Height	Stem Diam.	Branch Spread		Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m^2)	RPA Radius (m)
T17	Norway Maple 'Crimson King'	11	270	N E S W	3.5 3.5 3.5 3.5	2.2-S 1	SM	G	▪ Growing from base of stone boundary wall. ▪ Projected to displace boundary wall on incremental growth.	▪ Remove tree due to conflict with built structure.	<10	U	33	3.24
T18	Norway Maple 'Crimson King'	8	180#	N E S W	4 2 2 3.5	2-W 1.75	SM	G	▪ Located on neighbouring land and therefore not inspected in detail. ▪ Crown biased north-west, away from neighbouring trees. ▪ Growth moderately suppressed by group G5.	▪ Ensure subsequent development design proposals allow for protection of tree's RPA and crown throughout development process.	20+	C1	15	2.16
T19	Japanese Flowering Cherry	7	160	N E S W	4 4 4 4	2.25 3	EM	P	▪ Located on neighbouring land and therefore not inspected in detail. ▪ Evidently topped in the past at a height of approximately 4m, but now has a well-established crown of regrowth.	▪ Ensure subsequent development design proposals allow for protection of tree's RPA and crown throughout development process.	10+	C1	12	1.92
T20	Common Ash	21.5	1140	N E S W	12 12 12 12	5-NW 0	PM	M	▪ Evidently in mid-stage decline. ▪ Has sustained a number of primary and secondary branch failures to a diameter of approximately 300mm, with fungal fruiting bodies of saprophytic decay fungus *Daldinia concentrica* visible on several of remaining stubs. ▪ Epicormic growths along remaining lower branches indicate reduced vitality.	▪ Ensure subsequent development design proposals allow for retention of tree and protection of its RPA and crown throughout development process.	10+	C1	588	13.68
T21	Common Ash	17	900#	N E S W	7 7 10 6	6-S 4	M	P	▪ Unable to inspect base due to dense ground vegetation. ▪ Stem trifurcates at a height of approximately 2.5m. ▪ Post-mature fungal fruiting bodies of white rot decay fungus *Inonotus hispidus* visible on upper stems of two of three leaders. ▪ Crown exhibiting multiple symptoms of effects of colonisation by Ash Dieback Disease. ▪ Short projected life expectancy of less than ten years.	▪ Remove tree due to short projected remaining life expectancy resultant of colonisation by Ash Dieback Disease.	<10	U	366	10.8
T22	Common Ash	13	740	N E S W	6 6 6 6	4.5-NE 2.5	M	P	▪ Severe, approximately 2m long by 150mm wide, partially occluded wound on northern side reveals stem hollow from base to a height in excess of 3m. ▪ Nature of decaying tissue within cavity indicates colonisation by white rot decay fungus, although no fungal fruiting bodies visible. ▪ Crown exhibiting multiple symptoms of effects of colonisation by Ash Dieback Disease. ▪ Limited projected life expectancy of less than ten years.	▪ Remove tree due to short projected remaining life expectancy resultant of colonisation by Ash Dieback Disease.	<10	U	248	8.88

No.	Species	Height	Stem Diam.	Branch Spread		Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m^2)	RPA Radius (m)
T23	Common Ash	18	700#	N E S W	7 10 6 10	0-SW 1.25	M	M/P	▪ Growing in hedge and therefore unable to inspect base and lower stem. ▪ Abundant deadwood throughout crown. ▪ Crown exhibiting multiple symptoms of effects of colonisation by Ash Dieback Disease. ▪ Short projected life expectancy of less than ten years.	▪ Remove tree due to short projected remaining life expectancy resultant of colonisation by Ash Dieback Disease.	<10	U	222	8.4
T24	Whitebeam	5.5	170	N E S W	3.5 3.5 3.5 3.5	2.5 3	SM	G	▪ Growing in hedge. ▪ No significant visible defects.	▪ Remove tree in context of proposed site development.	10+	C1	13	2.04
T25	Common Ash	17	600#	N E S W	6 6 6 6	3.5-S 1.5	M	M	▪ Growing in hedge and therefore unable to inspect base and lower stem. ▪ Very heavily seed laden, potentially due to colonisation by Ash Dieback Disease, but unable to confirm due to lack of further symptoms.	▪ Ensure subsequent development design proposals allow for retention of tree and protection of its RPA and crown throughout development process.	10+	C1	163	7.2
T26	Common Ash	8	1x150 1x140 1x130 1x120 (ms)	N E S W	3 5 3 4	3-S 3	SM	P	▪ Growing in hedge and therefore unable to inspect base and lower stem. ▪ Heavily seed laden. ▪ Crown exhibiting multiple symptoms of effects of colonisation by Ash Dieback Disease. ▪ Short projected life expectancy of less than ten years.	▪ Remove tree due to short projected remaining life expectancy resultant of colonisation by Ash Dieback Disease..	<10	U	33	3.25
T27	Sycamore	17	1x370 1x320 1x270 1x230 (ms)	N E S W	6 5 7 6	2-W 3	EM	G	▪ Growing in neighbouring area of public open space, and subsequently anticipated to be under Council ownership. ▪ Twin-stemmed from ground level. ▪ Northern stem bifurcates near base and again at a height of 1.5m with included bark unions.	▪ Ensure subsequent development design proposals allow for retention of tree and protection of its RPA and crown throughout development process.	20+	B1	165	7.25
G1	Ash, Elder, Hawthorn, Hazel, Holly	≤ 8	≤ 170	N E S W	≤ 3 ≤ 3 ≤ 3 ≤ 3	1.5-W ≥ 1	Y-SM	M-G	▪ Growing in neighbouring area of public open space, and subsequently anticipated to be under Council ownership. ▪ Closely spaced group of grown out hedge remnants.	▪ Removal of group will be necessary in order to form vehicular access point off Highmoor Park and associated visibility splays (see Illustrative Masterplan). Note: this will firstly necessitate identification of group's ownership (understood to be Ribble Valley Borough Council), with subsequent consultation with owners for removals in question. ▪ Loss of group should be compensated for through provision of extensive new tree planting within area of public open space.	10+	C2	≤ 13	≤ 2.04

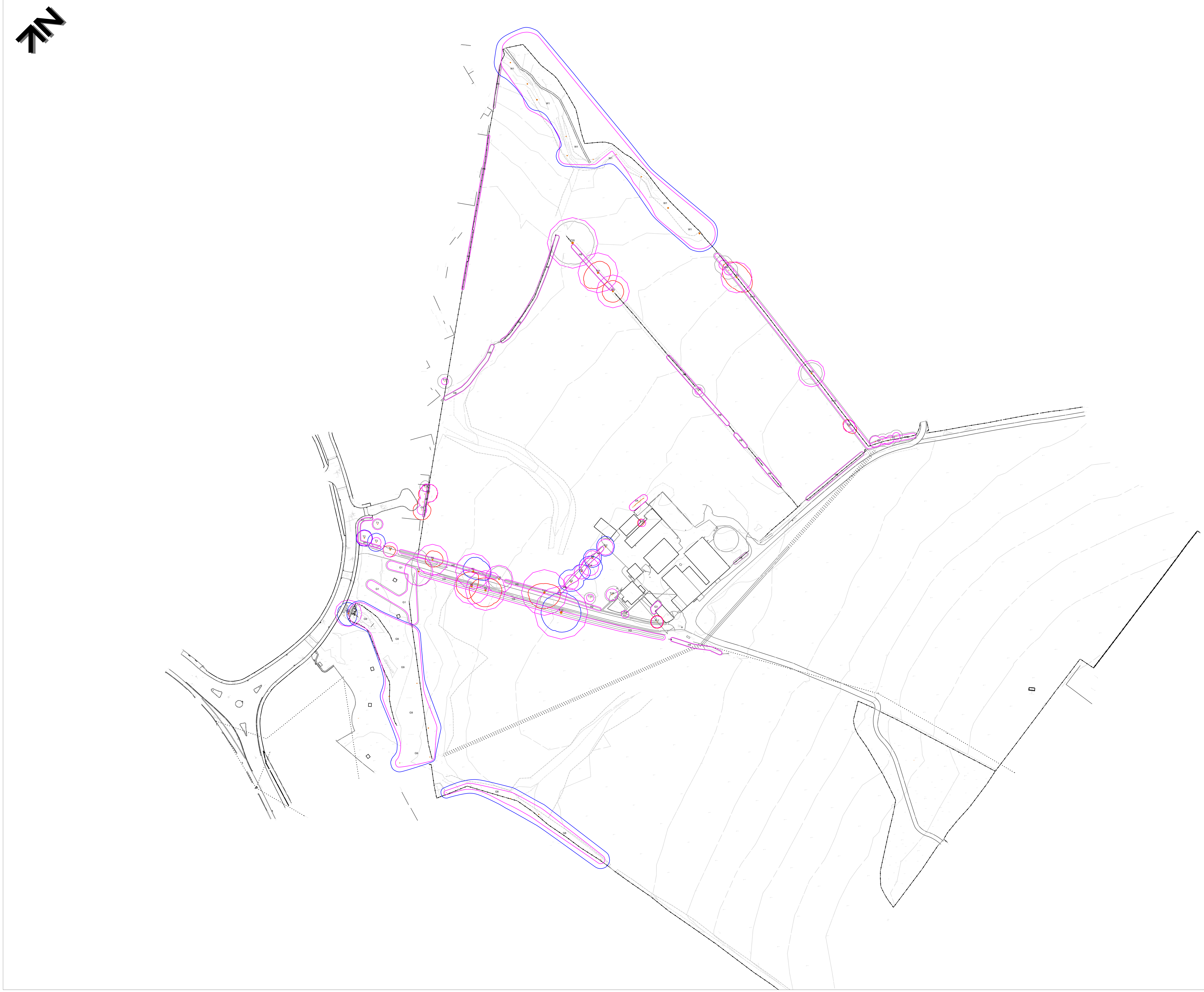
No.	Species	Height	Stem Diam.	Branch Spread		Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m²)	RPA Radius (m)
G2	2no. Beech, 1no. Sycamore, 1no. Ash	≤ 16.5	≤ 360	N E S W	≤ 7 ≤ 7 ≤ 5 ≤ 7	2-W ≥ 1.75	EM	G	▪ Moderately widely spaced linear group. ▪ Northernmost Beech has approximately 200mm x 75mm occluding lower stem wound. ▪ Other three trees are growing within hedge. ▪ Some have had crowns slightly lifted from over garden.	▪ Remove one tree from north of group in context of proposed site development. ▪ Ensure subsequent development design proposals allow for retention and protection of remainder of group throughout development process if necessary.	20+	B1/2	≤ 59	≤ 4.32
G3	Cypress, Laurel, Holly	≤ 9	≤ 8x60 (ms)#	N E S W	≤ 1.5 ≤ 1.5 ≤ 1.5 ≤ 1.5	0 ≥ 0	SM-EM	G	▪ Very closely spaced garden ornamental group comprised of mixed Cypresses, Laurels, and Hollies. ▪ Two further Cypresses on either side of footpath entrance.	▪ Remove group in context of proposed site development.	20+	C2	≤ 13	≤ 2.04
G4	17no. Leyland Cypress	≤ 9	≤ 170	N E S W	≤ 2 ≤ 2 ≤ 2 ≤ 2	1-N ≥ 1.5	SM	M	▪ Very closely spaced planted linear group. ▪ Stems severely abraded by livestock and many leaning. ▪ Rooted on a small, man-made bund. ▪ High risk of windthrow as trees grow in height due to poor rooting conditions.	▪ Remove group due to high risk of windthrow.	<10	U	≤ 13	≤ 2.04
G5	4no. Ash	≤ 15	≤ 420	N E S W	≤ 5 ≤ 5 ≤ 5.5 ≤ 5	2.5 ≥ 2	SM-EM	P	▪ Three of trees located on neighbouring land and therefore not inspected in detail. ▪ Crowns exhibiting multiple symptoms of effects of colonisation by Ash Dieback Disease. ▪ Short projected life expectancies of less than ten years.	▪ Remove tree that stands within site boundaries due to short projected remaining life expectancy resultant of colonisation by Ash Dieback Disease. ▪ Inform owners of remainder of group of evident colonisation of trees by Ash Dieback Disease. ▪ Ensure subsequent development design proposals allow for retention and protection of remainder of group throughout development process if necessary.	<10	U	≤ 80	≤ 5.04
G6	2no. Ash	≤ 13	≤ 220	N E S W	≤ 5 ≤ 5 ≤ 5 ≤ 5	1.75 ≥ 1.25	Y-SM	M	▪ Moderately spaced pair growing in hedge. ▪ Heavily seed laden. ▪ Crowns exhibiting reductions in vitality that may be indicative of effects of colonisation by Ash Dieback Disease.	▪ Ensure subsequent development design proposals allow for retention of group and protection of its RPAs and crowns throughout development process. NB: Trees should be appraised for effects of colonisation by Ash Dieback Disease prior to any development in order to re-evaluate retention values.	10+	C1	≤ 22	≤ 2.64
G7	5no. Ash	≤ 11.5	≤ 3x150 (ms)#	N E S W	≤ 3.5 ≤ 3.5 ≤ 3.5 ≤ 3.5	1.75 ≥ 3	Y-SM	P-G	▪ Closely spaced group growing in hedge. ▪ Several trees heavily seed laden. ▪ Several crowns exhibiting small leaves and branch tip dieback that may be indicative of effects of colonisation by Ash Dieback Disease.	▪ Ensure subsequent development design proposals allow for retention of group and protection of its RPAs and crowns throughout development process. NB: Trees should be appraised for effects of colonisation by Ash Dieback Disease prior to any development in order to re-evaluate retention values.	10+	C1	≤ 31	≤ 3.12

No.	Species	Height	Stem Diam.	Branch Spread		Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m^2)	RPA Radius (m)
G8	Ash, Hawthorn, Hazel, Common Oak, Damson, Osier, Holly, Elder, Norway Maple, Blackthorn	≤ 12.5	≤ 300#	N E S W	≤ 6 ≤ 6 ≤ 6 ≤ 6	0 ≥ 0	Y-SM	D-G	▪ Very closely spaced group spanning south-western boundary. ▪ Growing on opposite side of shallow, wet field ditch. ▪ Includes remnants of historically laid hedge.	▪ Ensure subsequent development design proposals allow for retention of group and protection of its RPAs and crowns throughout development process.	40+	B2	≤ 41	≤ 3.6
G9	Ash, Crack Willow, Hazel, Blackthorn, Hawthorn, Elder, Dogwood	≤ 16	≤ 3x300 (ms)#	N E S W	≤ 7 ≤ 7 ≤ 7 ≤ 7	1 ≥ 0	Y-M	P-G	▪ Growing in neighbouring area of public open space, and subsequently anticipated to be under Council ownership. ▪ Not inspected in detail. ▪ Closely spaced group growing along watercourse. ▪ Dense understorey of Blackthorn on site side to east. ▪ Ash trees are exhibiting symptoms of effects of colonisation by Ash Dieback Disease.	▪ Ensure subsequent development design proposals allow for protection of group's RPAs and crowns throughout development process.	20+	B2	≤ 122	≤ 6.24
W1	Ash, Common Alder, Hawthorn, Sycamore, Aspen, Hazel, Crab, Crack Willow	≤ 22	≤ 700	N E S W	≤ 9 ≤ 9 ≤ 9 ≤ 9	0 ≥ 0	Y-M	D-G	▪ Moderately spaced deciduous woodland belt growing on either side of small brook with public right of way running alongside. ▪ Larger trees are predominantly Ash, many of which are exhibiting symptoms of effects of colonisation by Ash Dieback Disease. ▪ Large, historically failed Crack Willow split at base by brook and one of leaders lying into site. ▪ Stand of Aspen to centre of woodland have partially failed.	▪ Ensure subsequent development design proposals allow for retention of woodland and protection of its RPAs and crowns throughout development process.	20+	B1/3	≤ 222	≤ 8.4
H1	Holly, Hawthorn	≤ 2	≤ 6x30 (ms)#	≤ 1 Wide		0 ≥ 0	SM	G	▪ Managed garden hedge around neighbouring property.	▪ Ensure access road design proposals allow for protection of hedge throughout development process.	10+	C2	N/A	≈ 0.88
H2	Hazel, Hawthorn, Ash	≤ 1.5	≤ 8x30 (ms)#	≤ 1 Wide		0 ≥ 0	M	G	▪ Laid and managed roadside hedge.	▪ Remove sufficient length from western end of hedge in context of proposed site development. ▪ Ensure subsequent development design proposals allow for retention and protection of remainder of hedge throughout development process.	10+	C2	N/A	≈ 1.02
H3	Hawthorn, Ash	≤ 1.5	≤ 120	≤ 1 Wide		0 ≥ 0	M	G	▪ Laid and managed roadside hedge growing on opposite side of ditch.	▪ Remove sufficient length from western end of hedge in context of proposed site development. ▪ Ensure subsequent development design proposals allow for retention and protection of remainder of hedge throughout development process.	10+	C2	N/A	≈ 1.44

No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m²)	RPA Radius (m)
H4	Hawthorn, Elder	≤ 2	≤ 100	≤ 2 Wide	0 ≥ 0	M	G	▪ Periodically managed boundary hedge. ▪ Historically laid. ▪ Growing atop low stone embankment.	▪ Ensure subsequent development design proposals allow for retention and protection of hedge throughout development process..	10+	C2	N/A	≈ 1.2
H5	Hawthorn	≤ 3	≤ 3x80 (ms)#	≤ 2 Wide	0 ≥ 0	EM	P	▪ Relatively sparse fragment of grown out hedge growing along old fence line.	▪ Ensure subsequent development design proposals allow for retention and protection of hedge throughout development process..	10+	C2	N/A	≈ 1.66
H6	Hawthorn	≤ 6	≤ 90	≤ 2 Wide	0 ≥ 0	M	M	▪ Unmanaged garden boundary hedge.	▪ Remove sufficient length from north section of hedge in context of proposed site development. ▪ Ensure subsequent development design proposals allow for retention and protection of hedge throughout development process..	10+	C2	N/A	≈ 1.08
H7	Hazel, Hawthorn, Holly	≤ 1.5	≤ 4x30 (ms)#	≤ 1 Wide	0 ≥ 0	SM	G	▪ Managed boundary hedge.	▪ Ensure subsequent development design proposals allow for retention and protection of hedge throughout development process..	10+	C2	N/A	≈ 0.72
H8	Hawthorn, Ash	≤ 3	≤ 4x50 (ms)#	≤ 2 Wide	0 ≥ 0	EM	G	▪ Unmanaged boundary hedge. ▪ Hawthorn hedge with occasional Ash seedlings.	▪ Remove hedge in context of proposed site development.	10+	C2	N/A	≈ 1.2
H9	Hazel, Hawthorn, Holly	≤ 1.5	≤ 4x30 (ms)#	≤ 1 Wide	0 ≥ 0	SM	G	▪ Boundary hedge evidently traversing three neighbouring residential properties and therefore managed at varying heights.	▪ Ensure subsequent development design proposals allow for retention and protection of hedge throughout development process..	10+	C2	N/A	≈ 0.72
H10	Hawthorn, Holly, Elder	≤ 7	≤ 120	≤ 4 Wide	0 ≥ 0	EM	G	▪ Unmanaged boundary hedge.	▪ Ensure subsequent development design proposals allow for retention and protection of hedge throughout development process..	10+	C2	N/A	≈ 1.44

BS5837:2012 Table 1 – Cascade Chart for Tree Quality Assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U 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 BS5837:2012 paragraph 4.5.7.*			Red
	1. Mainly arboricultural qualities	**2. Mainly landscape qualities**	**3. Mainly cultural values, including conservation**	
Trees to be considered for retention				
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	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)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	Green
Category B Those of moderate quality and value: those in such a condition as to make a significant contribution. A minimum of 20 years is suggested.	Trees that might be included in the high category, but are downgraded because of impaired condition. Examples include the presence of remediable defects including unsympathetic past management and minor storm damage	Trees present in numbers, usually as groups or woodlands, so they form distinct landscape features which attract a higher collective rating than they might as individuals. But which are not, individually, essential components of formal or semi-formal arboricultural features. For example, trees of moderate quality within an avenue that includes better, A category specimens. Or trees which are internal to the site, therefore individually having little visual impact on the wider locality	Trees with clearly identifiable conservation or other cultural benefits	Blue
Category C Those trees of low quality and value: currently in adequate condition to remain until new planting could be established - a minimum of 10 years is suggested - or young trees with a stem diameter below 150 mm	Trees not qualifying in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit	Trees with very limited conservation or other cultural benefits	Grey
	Note – Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation			



Important: The original version of this plan was produced in colour, which is essential to the plan's interpretation and usability. As such, a monochrome copy should not be relied upon

KEY
T = Individual Tree
G = Group of Trees
H = Hedge
W = Woodland

Please refer to associated Arboricultural Impact Assessment for specific details in respect of items below:

Tree Categorisations:

Those to be Considered for Retention:

Category 'A' Tree/Group/Hedge/Woodland
Those of a High Quality with an Estimated Remaining Life Expectancy of at Least 40 Years

Category 'B' Tree/Group/Hedge/Woodland
Those of a Moderate Quality with an Estimated Remaining Life Expectancy of at Least 20 Years

Category 'C' Tree/Group/Hedge/Woodland
Those of Low Quality with an Estimated Remaining Life Expectancy of at Least 10 Years, or Young Trees

Those Considered Unsuitable for Retention:

Category 'U' Tree/Group/Hedge/Woodland
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

Note: The stem locations of T1, T2, T3, T26 and some or all of the trees in groups G5-G9 were not included on the topographical survey plan provided and their locations were subsequently plotted by the arboricultural surveyor at the time of the survey using GPS siting and, where possible, measurement from existing site features. As such, the plotted locations of the trees and the extents of the groups cannot therefore be considered to be wholly accurate.

Root Protection Areas (RPAs):

RPAs
Area(s) of Ground Around Trees that Should be Protected Throughout Development Works with Protective Fencing to form a Construction Exclusion Zone - see Appended Temporary Protective Fencing Specification

Project:
LAND AT HIGHMOOR FARM
CLITHEROE
LANCASHIRE
BB7 1PN

Client:
VH LAND PARTNERSHIPS LTD

Title:
TREE CONSTRAINTS PLAN
in Relation to Proposed Residential Development

Scale:	1:1000@A1
Date:	October 2019
Drawn by:	JK & ET
Checked by:	PH

Bowland Tree Consultancy Ltd
e: info@bowlandtreeconsultancy.co.uk
t: 01772 437150

Ref: BTC1633-TCP Rev:

VERNON & Co.

HIGHMOOR PARK

KEY:

- PRIMARY VEHICLE ROUTES
- SECONDARY VEHICLE ROUTES
- PRIVATE DRIVES
- PROPOSED RESIDENTIAL DEVELOPMENT
- REAR BOUNDARIES TO DWELLINGS
- PROPOSED TREES & HEDGEROWS
- EXISTING HEDGEROWS / TREES TO BE RETAINED
- KEY NODAL SPACES WITHIN DEVELOPMENT
- KEY DWELLINGS IN PROMINENT POSITIONS
- PROPOSED PEDESTRIAN ROUTES
- EXISTING PUBLIC RIGHT OF WAY

1. PRIMARY VEHICLE ACCESS POINTS FROM HIGHMOOR PARK
2. RENOVATED COTTAGES
3. EXISTING ROADS / TRACK
4. AREA OF PUBLIC OPEN SPACE
5. PROPOSED ATTENUATION BASIN
6. FRONTAGE OVER RETAINED COTTAGES, RESPECTING THE SETTING
7. POTENTIAL CONNECTION TO FUTURE DEVELOPMENT

DEVELOPMENT SUMMARY:

GROSS SITE AREA: 12.34 AC / 5 HA

NETT DEVELOPABLE AREA: 8.97 AC / 3.63 HA

DWELLINGS ACHIEVABLE @ 30 - 35 DPH : 109 - 127

STEN ARCHITECTURE
STEN Architecture Ltd
Suite 4, Unit 1
Benton Office Park
Bennett Avenue
Horbury
WF4 5RA
Tel: 01924 669424
www.sten-architecture.co.uk

0 10 20 30 40 50

ILLUSTRATIVE MASTERPLAN | FEB 2020 | 1:1000 @ A2 HIGHMOOR FARM, CLITHEROE