



Arboricultural Impact Assessment

in Relation to Proposed Conversion of Existing
Barns and Construction of Extensions at



**Hammond Drive Barns, Hammond
Drive, Read, Lancashire, BB12 7RU**

Prepared by:

Bowland 
Tree Consultancy Ltd

January 2018

**ARBORICULTURAL IMPACT ASSESSMENT
HAMMOND DRIVE BARNS, READ**

Control sheet

Project No.: BTC1458

Site: Hammond Drive Barns, Hammond Drive, Read, Lancashire, BB12 7RU

Agent for Client: Peter Hitchen Architects

Council: Ribble Valley Borough Council

Survey Date: 18 January 2018

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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.

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.

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**ARBORICULTURAL IMPACT ASSESSMENT
HAMMOND DRIVE BARNs, READ**

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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 Impact Plan, identifying tree retention categories, crown spreads, Root Protection Areas, trees to be removed, and trees to be retained, 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;
 - 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 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, the report provides an initial analysis of the impacts that the proposed development is projected to have on trees located both within the site and, where practicable, on land immediately adjacent to its boundaries. It also offers guidance on suitable retained tree management and mitigation for projected losses, along with advice on appropriate tree protection measures in the context of the proposed development in accordance with current guidance.

Site Visit, Data Collection and Tree Plans

- 1.3 Further to the instruction it is confirmed that a tree survey was carried out, in accordance with the preceding disclaimer, on 18 January 2018, 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 one individual tree (prefixed 'T'), one group of trees (prefixed 'G'), and two woodlands (prefixed 'W'), which have been numbered accordingly on the appended Tree Impact Plan (TIP). The TIP, which details the existing site with an overlay of the proposed development, along with the readily definable tree constraints and projected impacts, is based on a topographical survey based proposal plan which was provided in electronic format by the project architects, Peter Hitchen Architects. In turn, for the purpose of this report, it is presumed that the provided plan's details are accurate. The TIP is intended to give an initial indication of the impacts that the proposed development is projected to have on trees, as well as to highlight areas where special construction and/or protection considerations may be necessary. It should subsequently be used by the LPA's tree specialist to preliminarily assess if the proposed development can practicably be constructed 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 & 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 Conservation Area. However, the council's website does not include details of specific TPOs and it is therefore crucial that the presence of any statutory tree protection be checked directly with the council's 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 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 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.

Felling Licences

- 2.5 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. 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 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 to the west of the village of Read, Lancashire, within the administrative boundaries of Ribble Valley Borough Council. It is comprised of two detached single-storey stone barn buildings standing in a back-to-front 'L' shape to the

north-east, with a walled courtyard and large grassed meadow to the south of the buildings, a grassed area immediately to the west of the buildings with a woodland to the west of the grassed area, and a woodland to the east of the buildings.

- 3.2 The site is bordered to the south by Hammond Drive, which is a private vehicular access road to several properties, and to the remaining side by fields. According to the topographical survey base plan provided the ground levels within the site boundaries vary substantially, rising by approximately 8 metres from the lowest point to the site's south to the highest point to the north.

4.0 THE TREE POPULATION

- 4.1 As noted previously, a total of one individual tree, one group of trees, and two woodlands were surveyed for the purpose of this appraisal. They range from young to mature in age, with heights of up to 22 metres, maximum diametrical crown spreads of up to approximately 15 metres, and stem diameters of up to 580 millimetres. Detailed 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 any 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.
- 4.4 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'.
- 4.5 As detailed in Table B, below, the tree, the group, and the two woodlands were categorised as moderate quality (i.e. 'B' category).

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

	Ret. Cats.	Tree/Group/Woodland Numbers	Totals
Those of a moderate or high quality that should be afforded appropriate consideration in the context of development	'A'	-	-
	'B'	T1, G1, W1, W2	1 Tree 1 Group 2 Woodlands
Those of a low quality that should not be considered a material constraint to development	'C'	-	-
Those that should be removed for sound management reasons regardless of site proposals	'U'	-	-
			= 1 Tree, 1 Group & 2 Woodlands in Total

5.0 THE DEVELOPMENT PROPOSAL AND ITS PROJECTED ARBORICULTURAL IMPACTS

The Development Proposal

- 5.1 The proposed site plan (drawing number PHA/088), as prepared by the project architects, indicates that the planning application is for the conversion of the existing barn buildings into a single-storey residential property, with the inclusion of the construction of an extension to the east and an extension to the south (see TIP). Vehicular access is proposed along an existing overgrown farm track from Hammond Drive to the site's south-west (see TIP).

Projected Arboricultural Losses Relating to the Proposal

- 5.2 From the information provided to date it is projected that, as detailed in Table C, below, construction of the development as proposed can be achieved without the need to remove any of the existing trees.

Table C: 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'	-	-	-
Those of a low quality that should be afforded appropriate consideration in the context of development	'C'	-	-	-
Those that should be removed for sound management reasons regardless of plans	'U'	-	-	-
Totals		-	-	= 0 Trees in Total

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 TIP, 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 radial RPAs are indicated as magenta coloured circles on the TIP.
- 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

- 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, it should be noted that the proposed site plan 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 a Tree Protection Plan (TPP) be prepared detailing special mitigation construction issues in relation to the development under consideration. Essentially, the AMS and TPP describe and 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.

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 strict accordance with BS8545:2014 Trees: from nursery to independence in the landscape – Recommendations.

Retained Tree Management

- 7.6 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.
- 7.7 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 One individual tree, one group of trees, and two woodlands were surveyed in respect of a proposal to convert and extend two existing barn buildings into a single-storey residential property, with vehicular access along an existing farm track from the site's south-west.
- 8.2 The surveyed tree, the group, and the two woodlands were all categorised as moderate quality.
- 8.3 An appraisal of the documentation provided to date identified that construction of the development as proposed can be achieved without the need to remove any of the existing trees.
- 8.1 Nonetheless, in order to ensure successful existing tree preservation over the long-term, however, it is essential that the retained trees are protected in strict accordance with current Government guidance and the recommendations included herein.
- 8.2 Accordingly, the provision of and adherence to a suitably detailed Arboricultural Method Statement and Tree Protection Plan can also be conditioned to a planning approval in order to further safeguard the imposition of suitable tree protection.

REFERENCES

- 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							
Site:		Hammond Drive Barns, Hammond Drive, Read, Lancashire, BB12 7RU					
Agent for Client:		Peter Hitchen Architects					

Surveyor:	Phill Harris Chartered Arboriculturist
Survey Date:	18 January 2018
Job Ref:	BTC1458

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	Common Oak	8	220	N 3 E 4.5 S 4.5 W 3	1.5 2	Y	G	▪ Slightly biased crown south east.	▪ Retain in context of proposed development.	40+	B1	22	2.64
G1	3no. European Larch	≤ 15	≤ 420	N ≤ 4.5 E ≤ 4.5 S ≤ 4.5 W ≤ 4.5	4-W ≥ 1.5	EM	G	▪ Closely spaced group. ▪ Branch tips of most westerly tree in contact with roof of barn.	▪ Retain in context of proposed development.	20+	B1	≤ 80	≤ 5.04
W1	European Larch, Holly, Lime, Common Oak, Elder	≤ 20	≤ 490	N ≤ 4 E ≤ 4 S ≤ 4 W ≤ 4	N/A ≥ 2.5	Y-M	G	▪ Small woodland block to east of barns. ▪ Evidently growing on made ground on bottle dump site with substantial element of fire ash waste in soil and considerable number of rabbit holes. ▪ Several trees have failed at ground level. ▪ Made up mainly of semi-mature to early-mature Larch, with some semi-mature to early-mature Holly, several mature multi-stemmed coppice regrowth Limes on south side with a concentration to east, and a small number of young Oaks. ▪ Very little ground flora variation, natural regeneration, or understorey, but large number of dead Elders. ▪ Woodland has evidently not previously been managed and, as a result, it is very closely spaced with little species, canopy and age variation, and would subsequently benefit from the implementation of long-term management to increase variation in these respects. ▪ Silvicultural management works considered essential in order to improve species, age and canopy diversity.	▪ Retain in context of proposed development. ▪ Implement silvicultural management works.	20+	B1/2	≤ 109	≤ 5.88

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 existing site and tree circumstances and conditions into account and not proposed developments. Arboricultural Impact Assessment and Method Statement related
ERC:	Surveys take the proposed development into consideration with recommendations made accordingly. More than one option may be given if considered appropriate
Cat. Grade:	Estimated Remaining Contribution - in years as per BS5837:2012 (i.e. <10, 10+, 20+, 40+)
RPA m²:	Category Grading - tree retention value listed as U, A, B or C - in accordance with BS5837:2012 Table 1
RPA Radius (m):	Root Protection Area in m² - calculated area around the tree that must be appropriately protected throughout the development process in order avoid root damage
# (Estimated Dimensions):	Root Protection Area Radius - in metres measured from the centre of the stem to the line of tree protection
	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

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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)
W2	European Larch, Holly, Lime, Common Oak, Sycamore	≤ 22	≤ 580	N ≤ 7 E ≤ 8 S ≤ 7.5 W ≤ 7	1.5-S ≥ 2.5	Y-M	G	- Small woodland block to west of barns. - Several trees have failed at ground level. - Made up mainly of young to early-mature Larch, with some semi-mature Holly, several mature multi-stemmed coppice regrowth Limes on south side, a small number of young to semi-mature Oaks, and one early-mature Sycamore. - Very little ground flora variation, natural regeneration, or understorey. - Woodland has evidently not previously been managed and, as a result, it is very closely spaced with little species, canopy and age variation, and would subsequently benefit from the implementation of long-term management to increase variation in these respects. - Silvicultural management works considered essential in order to improve species, age and canopy diversity - Early-mature Larch to north-eastern edge of woodland group has highly attenuated growth with a severe stem lean and highly biased crown east, evidently resultant of suppression by neighbouring trees.	- Retain in context of proposed development. - Implement silvicultural management works. - Remove Larch with severely attenuated growth form to north-eastern edge of woodland group.	20+	B1/2	≤ 152	≤ 6.96

DISCLAIMER

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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 regards 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.

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 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 potentially unacceptable risk to persons and/or property has been identified during our survey. 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 first attempt to inform the site occupier of the issues and, if not possible, then inform the relevant Council. 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 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.

The tree survey and any report information provided is intended as a guide to identify key tree related constraints to site development only. As such, 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.

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Statutory Tree Protection: It is the client's responsibility to check for the presence of any statutory tree protection measures, such as the site's location within a Conservation Area and/or the presence of any Tree Preservation Orders, directly with the applicable Council's planning department prior to scheduling or carrying out any tree works. In turn, it is also the client's responsibility to check for the need for a felling licence with the Forestry Commission prior to scheduling or carrying out any tree works. Bowland Tree Consultancy Ltd cannot be held responsible for any decisions made by the client to prune or remove trees where any such statutory protection exists.

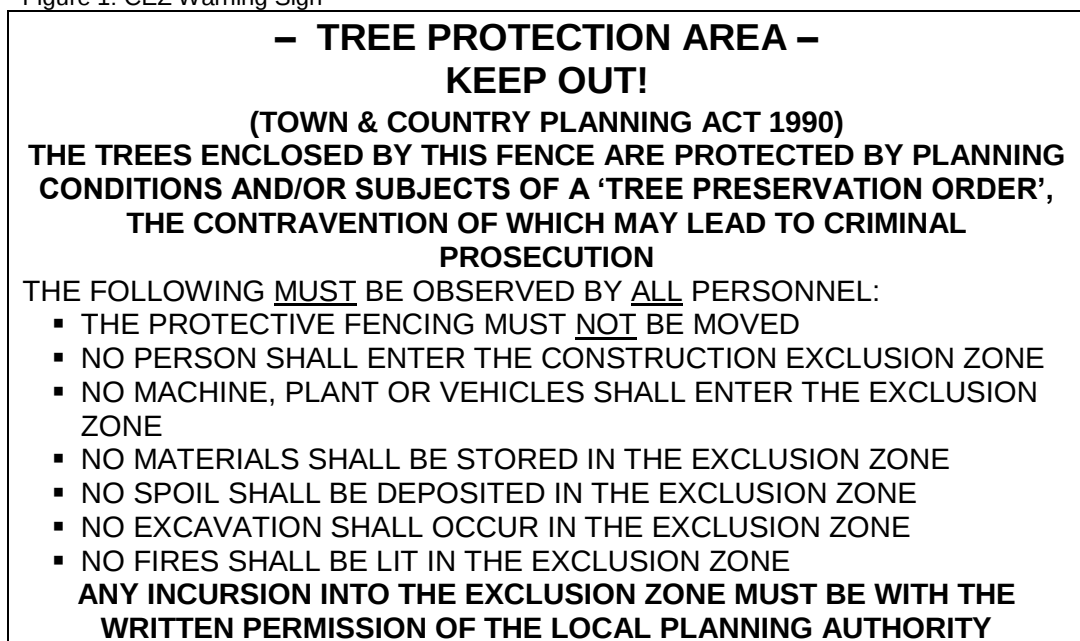
- TEMPORARY PROTECTIVE FENCING SPECIFICATION -

Construction Exclusion Zones (CEZs), shall be enclosed by **Temporary Protective Fencing** and/or, where necessary, **Temporary Ground Protection Measures**. The fencing/ground protection Type(s), locations, and extents shall be agreed, in writing, with the Local Planning Authority (LPA). In turn, the **Temporary Protective Fencing** and/or **Temporary Ground Protection Measures** shall:

1. be constructed in accordance with the Type 1 'Temporary Protective Fencing Construction' section at page 2 and, where applicable the 'Temporary Ground Protection Measures' section, as detailed herein and agreed, in advance with the LPA;
1. be retained in place throughout the development process until completion of the project, and only removed following receipt of written permission from the LPA;
2. be sited in the area(s) defined by the Root Protection Areas on the associated Tree Impact Plan, or as the CEZs on the Tree Protection Plan;
3. be erected prior to any construction, demolition or excavation works and remain in place for the duration of the project;
4. preclude any delivery of site accommodation and/or materials and/or plant machinery;
5. preclude all construction related activity, with the sole exception of specified arboricultural works and any other works to be carried out under supervision that have been agreed by all parties;
6. preclude the storage of all development related materials and substances including fuels, oils, additives, cement and/or any other deleterious substance; and
7. be affixed with a 600mm x 300mm warning sign reading "TREE PROTECTION AREA KEEP OUT" (see Figure 1, below), at every 10.0 metre length of protective fencing.

Important: Any incursion into CEZs must be by prior arrangement, following consultation with the LPA.

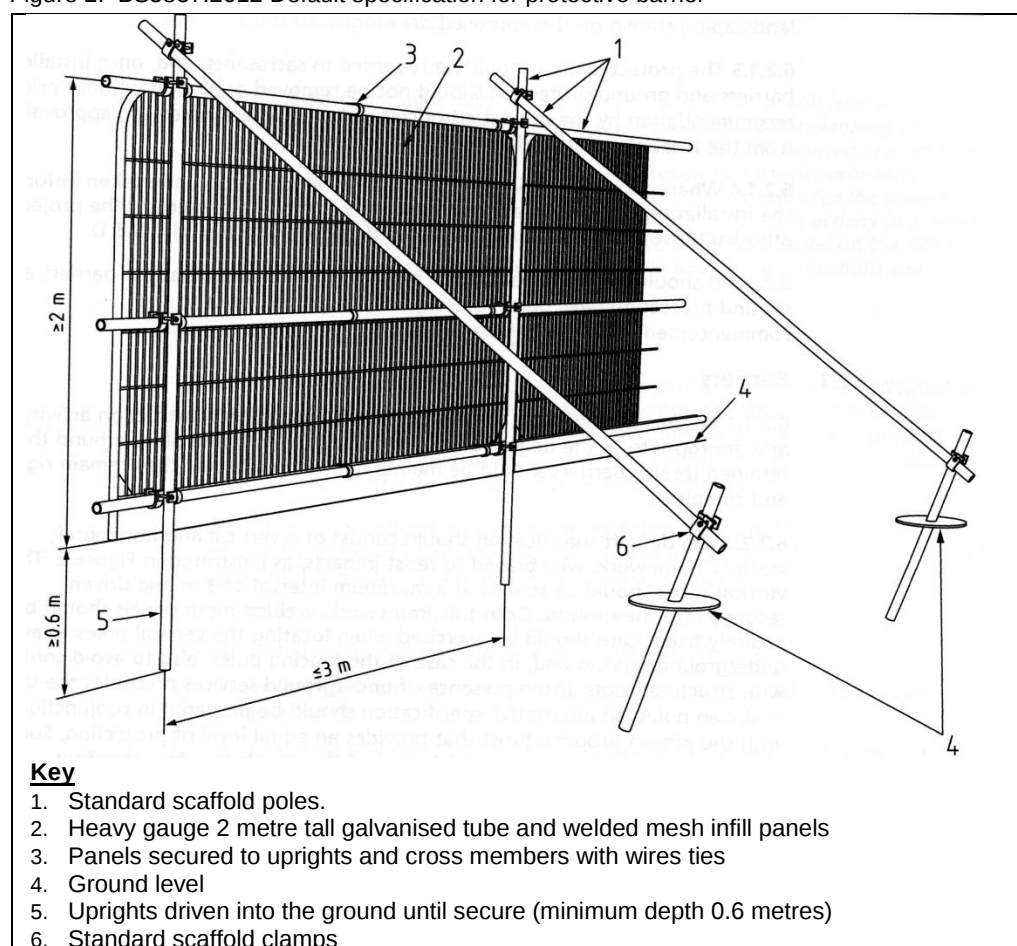
Figure 1: CEZ Warning Sign



Type 1 (i.e. 'Default') Temporary Protective Fencing Construction (see Figure 2, below)

1. Temporary protective fencing panels shall be weldmesh "Heras" panels of at least 2.0 metres in height.
2. The panels shall butt together and be securely fixed to a scaffold framework, as per points 3 to 5 of Figure 2, overleaf.
3. The scaffold framework shall comprise of upright poles of at least 3.0 metres in length driven no less than 0.6 metres into the ground at maximum 3.0 metre centres with horizontal and diagonal poles fixed to the uprights, as per points 4 to 5.
4. The two horizontal rail poles shall be attached to the uprights at heights of 0.6 and 1.8 metres with 3 no. clamps to each joint.
5. The diagonal scaffold pole struts be clamped to the top rail of the scaffold framework at a 45° angle and extend back into the CEZ and clamped to a 0.7 metre length of scaffold tube that shall be driven no less than 0.5m into the ground.
6. No fixing shall be made to any tree and all possible precautions shall be taken to prevent damage to tree roots when locating posts.
7. A 600mm x 300mm warning sign reading "TREE PROTECTION AREA KEEP OUT" (see Figure 1) shall be fixed to every 10.0 metre length of protective fencing.
8. On completion of erection, and prior to any demolition or construction works, site preparation, excavation or delivery of plant and materials, the Consulting Arboriculturist or the LPA Tree Officer, as agreed, shall inspect the Temporary Protective Fencing.

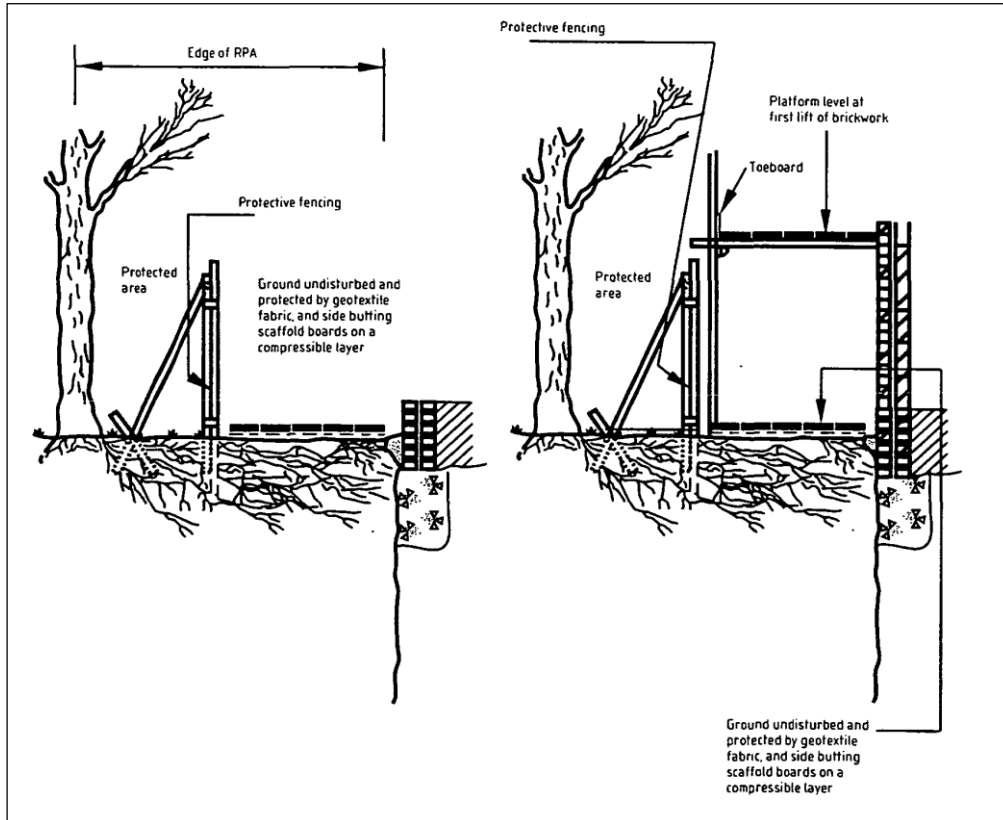
Figure 2: BS5837:2012 Default specification for protective barrier

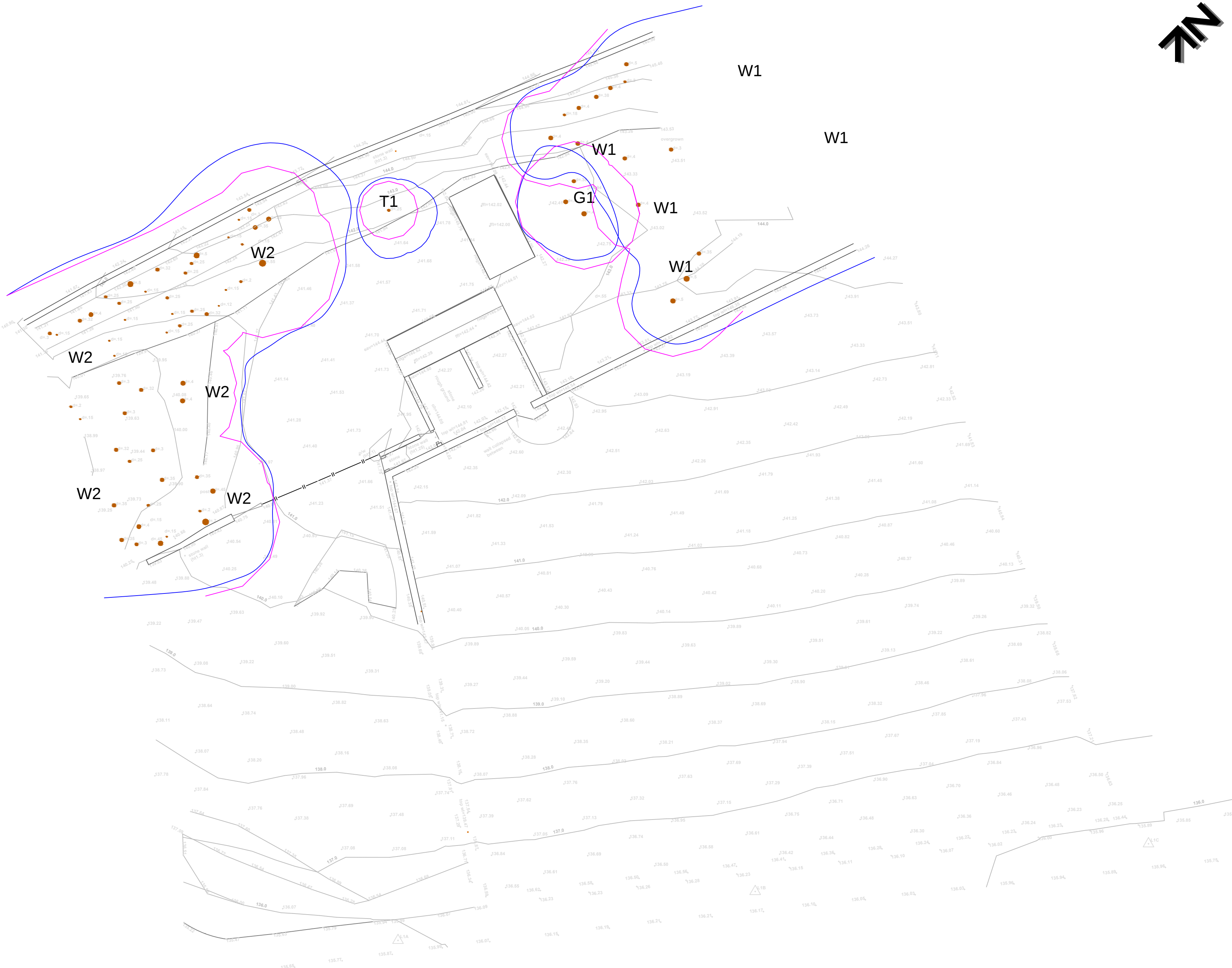
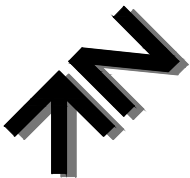


Temporary Ground Protection

1. Any necessary Temporary Ground Protection areas shall conform to Figure 3, below, unless otherwise agreed with the LPA.
2. The Ground Protection Area shall be left undisturbed and covered by a semi-permeable geotextile membrane which shall, in turn, be covered by a compressible layer consisting of a material such as woodchip.
3. Side-butting scaffold boards shall then be fitted to cover the Ground Protection Area.
4. On completion of installation, and prior to any demolition or construction works, site preparation, excavation or delivery of plant and materials, the Consulting Arboriculturist or the LPA Tree Officer, as agreed, shall inspect the Temporary Ground Protection.
5. The Temporary Ground Protection shall remain in place until completion of the project and only removed following receipt of written permission from the LPA.

Figure 3: Temporary Ground Protection – Recommended Construction





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
W = Woodland

Please refer to associated Tree Survey Schedule for specific details in respect of items below:

Tree Categorisations:

Those to be Considered for Retention:

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

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

Category 'C' Tree/Group/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/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

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 Temporary Protective Fencing Specification

Project:

HAMMOND DRIVE BARNs
HAMMOND DRIVE
READ
LANCASHIRE
BB12 7RU

Agent for Client:

PETER HITCHEN ARCHITECTS

Title:

TREE CONSTRAINTS PLAN
in Relation to Proposed Conversion of Barns to Residential Dwelling with Construction of Building Extension and Vehicular Access

Scale:

1:250@A2

Date:

January 2018

Drawn by:

PH

Checked by:

JK

Bowland

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Ref: BTC1458-TCP

Rev:

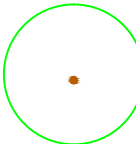
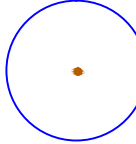
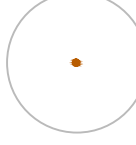
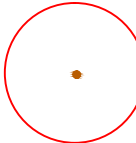


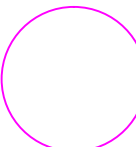
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Date: January 2018
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Ref: BTC1458-TIP Rev: