Arboricultural Impact Assessment

of Outline Proposal for Residential Development at

Waddow View, Clitheroe, Lancashire, BB7 2DE

Prepared by:

Bowland Tree Consultancy Ltd

July 2014

ARBORICULTURAL IMPACT ASSESSMENT
WADDOW VIEW, CLITHEROE

Control sheet

Project No.:	BTC298
Project Title:	Arboricultural Impact Assessment - Waddow View, Clitheroe
Client(s):	The Huntroyde Estate, Clitheroe Auction Mart Co. Ltd., Mr J Taylor, Ms Sarah Howard & Ms Samantha Howard
LPA:	Ribble Valley Borough Council
Date of Survey Review:	19 June 2014
Prepared by:	Phill Harris MSc BSc(Hons) HND CEnv MArborA MICFor Chartered Arboriculturist
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Institute of Chartered Foresters Registered Consultant

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.

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.

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APPENDICES

PLANS

1.0 INTRODUCTION

Terms of Reference

1.1 Bowland Tree Consultancy Ltd are instructed to:

a) Survey from ground level, either as individuals or by group, all trees having reasonable potential to be adversely affected by or to affect the proposed site development;
b) Prepare a tabulated Tree Survey Schedule based on guidance specified in British Standard BS5837:2012 - Trees in Relation to Design, Demolition and Construction – Recommendations;
c) Evaluate the potential tree related impacts and design conflicts of the proposals;
d) Advise on removal, retention and management options for the trees in the current context and in the context of the proposed outline development;
e) Broadly assess and advise on the tree protection measures required during development;
f) Annotate the site proposal plan to identify tree numbers, retention categories, crown spreads and Root Protection Areas to indicate tree related constraints in order to produce a Tree Constraints Plan; and
g) Produce an Arboricultural Impact Assessment report outlining the main tree related issues and potential tree related impacts in relation to the development proposal and suitable mitigation and/or 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 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 would potentially have on trees located both within the site and immediately adjacent to its boundaries. It also offers guidance on suitable retained tree management and mitigation for projected losses, along with appropriate tree protection measures in the context of the proposed development in accordance with current guidance.

1.3 The report is an update of an earlier report that was prepared for the site, during October 2012, in support of a previous outline planning application (LPA no. 3/2012/0913), which was refused on 15 February 2013 on grounds of visual impact and prematurity. A subsequent public inquiry proceeded during August and September 2013. In turn, the Inspector recommended that the appeal be dismissed.

Site Visits, Data Collection and Tree Plan

1.4 The surveys relating to the previous report were carried out during May and September 2012. Consequently, a survey update was carried out in order to evaluate any changes in the tree cover that may have an effect on my appraisal, such as stem increases, variations in physiological condition, etc., as well as to take any tree removals into account that have taken place since the initial surveys, specially the removal of the high value groups that were located on immediately neighbouring cemetery land to the site's north. As I result of the survey update I also revised the tree numbers in a sequential order.

1.5 In this respect I confirm that I visited the site on 19 June 2014 and carried out an update appraisal of trees, as detailed above and in accordance with the preceding disclaimer. 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 associated BS5837:2012 Table 1.

1.6 My survey update identified 35 individual trees (prefixed 'T'), five groups of trees (prefixed 'G') and eight hedges (prefixed 'H'), and have numbered them accordingly on the appended Tree Constraints Plan (TCP). The TCP is based on a topographical survey plan that was provided in electronic format by the project land surveyor and, for the purpose of this report, the plan details are presumed to be accurate.

1.7 The TCP details the existing site with the readily definable tree constraints overlaid, thereby allowing a preliminary appraisal of the development's potential impacts on trees when compared against the Masterplan (see section 5), and a subsequent preliminary evaluation of tree protection requirements, tree work needs and provisions for mitigation. The constraints relating to tree Root Protection Areas (RPAs) and their protection requirements are discussed in detail at paragraphs 6.1 and 6.2.

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 75mm 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 Lancashire County Council's 'Maps and Related Information Online' ([1]MARIO) website the site does not stand within a CA, and I am of the understanding that the trees within the site boundaries are not subject to TPO protection. However, I would strongly recommend that the Planning Department of Ribble Valley Borough Council be contacted in order to confirm if any statutory protection of this type exists prior to scheduling or carrying out any tree works.

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. 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 are protected under Schedule 5 of the Wildlife & Countryside Act (1981) (as amended) and under Schedule 2 of the Conservation of Habitats and Species Regulations 2010. 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 subsequently 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 action(s) prior to works continuing.

[1] http://mario.lancashire.gov.uk

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 specific volumes of timber. Felling Licences are administered by the Forestry Commission, and contravention of the associated controls can incur substantial penalties. A Felling Licence is not needed for the removal of trees immediately required for the purpose of carrying out a development authorised by detailed (i.e. full) planning permission granted under the Act (1990). However, I would note that the latter does not apply to outline planning permission, as sought in this instance.

3.0 THE SITE AND THE SURROUNDINGS

3.1 The site, which is greenfield, is located at the rural edge to the western perimeter of the town of Clitheroe, Lancashire. It consists of various fields that are under agricultural usage and are divided by ditches, maintained and outgrown hedgerows and fences, with individual trees and groups of trees in various locations (see Figs. 1 & 2, below). According to the topographical survey the land within the site slopes gently down from south-east to the north-west.

3.2 The site is bordered to the north by a cemetery, a paddock, Waddington Road and residential properties, to the east by a field with outline residential planning consent and residential properties, to the south by residential properties, Back Commons, and fields, and to the west by fields (see Figs. 1 & 2, below). Vehicular access is possible via two gated farm tracks off Waddington Road to the north and Back Commons to the south-east. A public footpath runs through the southern section of the site from Back Commons to the fields to the west, in a north-west/south-east direction. A connecting public footpath runs along the western boundary on immediately neighbouring land.

Fig 1: The site's northern boundary to the cemetery access

Fig 2: Remnant hedgerow (H1), in the southern section of the site

4.0 THE TREE POPULATION

4.1 As noted previously, 35 individual trees, five groups of trees and eight hedges areas were surveyed for the purpose of this appraisal, of which the majority are located within the site boundaries. The surveyed trees consist of several deciduous broadleaf and evergreen broadleaf species, including ash, common alder, sycamore, holly, horse chestnut and goat willow, with ash forming the majority of the numbers. Only a small percentage of the surveyed trees are of non-native species.

4.2 Tree sizes range from small to moderately large, with most individuals being either small or moderate, and stand at heights of up to 16.5 metres, have maximum diametrical crown spreads of up to 20 metres and stem diameters of up to 870mm. Ages range from young to post-mature.

4.3 The surveyed trees stand as individuals and as components of wider groups and, to varying extents, are all visible from neighbouring properties and/or public vantage points. The overall visual amenity that the subject trees located within the site boundaries confer in the local landscape is considered to be moderate.

4.4 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. In respect of the TSS 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.

4.5 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 the guidance in BS5837:2012 Table 1 (included at Appendix One). 'A' category trees are those considered to be of 'high quality' and, accordingly, the most suitable for retention, 'B' category trees are those considered to be of 'moderate quality' and suitably for retention, and 'C' category trees are those considered to be of low quality and suitability for retention. In 'U' category trees are those considered to be unsuitable for retention.

4.6 As detailed in Table A (below), four trees were categorised as high quality ('A'), 13 trees and one group were categorised as moderate quality ('B'), and ten trees, four groups and the eight hedges were categorised low quality ('C'). In addition, eight of the trees were classed as being unsuitable for retention (i.e. 'U' category) in their current form in the context of the proposals due to poor structural and/or physiological condition.

Table A: BS5837-2012 Retention Categories of the Surveyed Vegetation

	Ret. Cats.	Tree/ Group/Hedge Numbers	Totals
Those of a high quality that should be afforded appropriate consideration in the context of development	**'A'**	T6, T8, T16, T25	*4 Trees*
Those of a moderate quality that should be afforded appropriate consideration in the context of development	**'B'**	T1, T2, T4, T5, T12, T19, T20, T22, T28, T29, T32, T33, T34, G3	*13 Trees* *1 Group*
Those of a low quality that should be afforded appropriate consideration in the context of development	**'C'**	T10, T11, T17, T21, T24, T26, T27, T30, T31, T35, G1, G2, G4, G5, H1, H2, H3, H4, H5, H6, H7, H8	*10 Trees* *4 Groups* *8 Hedges*
Those considered unsuitable for retention	**'U'**	T3, T7, T9, T13, T14, T15, T18, T23	*8 Trees*
			= 35 Trees, 5 Groups & 8 Hedges in Total

5.0 THE DEVELOPMENT PROPOSAL AND ITS PROJECTED ARBORICULTURAL IMPACTS

5.1 The application is for outline planning permission for a residential development of up to 275 dwellings with all matters other than the access reserved. The scheme proposes mainly family homes, with a suitable proportion of properties to meet the needs of first time buyers and senior citizens. Accordingly, I have been provided with an Illustrative Masterplan to that effect, as prepared by Greensky Architecture, and appended at Plan 2.

5.2 General vehicular access is proposed from Waddington Road to the north, with a

bus/emergency vehicle only access via Kirkmoor Road to the south-east, in line with the Appeal Inspector's decision.

Projected Arboricultural Losses Relating to the Proposal

5.3 As the application is outline and the associated Masterplan is illustrative in nature I have not made a detailed appraisal of the development's potential impacts on individual trees and hedges. However, my preliminary appraisal of the Masterplan against the TCP indicates that implementation of the development as its stands, as detailed in Table B (below), is projected to require the removal of five moderate quality (i.e. 'B' category) trees, three low quality trees (i.e. 'C' category), three low quality groups, and three low quality lengths of hedge. In addition, several sections of hedge H1 will require removal in order to implement the development, although I would note that the retained sections can be infill planted and managed in accordance with traditional management practices (i.e. laying) in order to improve its condition and longevity.

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

	Ret. Cats.	Removals necessary to implement development	Removals suggested for non-development related reasons	Total number of tree 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'**	T19, T22, T32, T33, T34	-	*5 Trees*
Those of a low quality that should be afforded appropriate consideration in the context of development	**'C'**	T30, T31, T35, G2, G4, G5, H5, H6, H8	-	*3 Trees* *3 Groups* *3 Hedges*
Those that should be removed for sound management reasons regardless of site plans	**'U'**	-	-	-
Totals		*9 Trees* *3 Groups* *3 Hedges*	-	***= 9 Trees,*** ***3 Groups &*** ***3 Hedges in Total***

5.4 Nonetheless, although I have identified that it will be necessary to remove a number of trees and hedge section in order to implement the development, it is also apparent that the proposal as it stands includes the provision and the ability to retain a large percentage of the trees and hedges and incorporate them into areas of public open space or, where appropriate, suitably sizeable gardens.

5.5 In this respect I would note that, as this is an outline application it is anticipated that any subsequent detailed application could, where considered achievable, also incorporate some of the better quality trees listed in Table B for removal (e.g. T19 and T22) into the development design.

5.6 As such, it therefore imperative that, if outline permission is granted, then the subsequent detailed development proposals should include adequate provision for the incorporation of the existing trees and hedges identified for retention into the design, 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). These considerations can be secured and controlled via a suitably worded condition attached to an outline planning permission.

5.7 With specific regard to these issues I would note that the inspector, in his statement regarding the previous application, acknowledged that he had *'no cogent objection'* arising from the topic of trees, hedges and wildlife, and that '*much more new landscape would be planted*' as part of site development.

Mitigation for Subsequent Tree Losses as Part of Site Landscaping

5.8 Extensive new tree planting should be included as part of any subsequent detailed development proposals, with an associated landscape scheme specifying such matters submitted in support of any such planning application. In consideration of the character of the surrounding local rural landscape it is my opinion that such a scheme should include a substantial percentage of trees of locally native species such as holly, rowan, whitebeam, common oak and silver birch.

5.9 In turn, the provision of locally native trees and hedges would have numerous benefits including maintaining local landscape character, value in terms of heritage and conservation and the provision of important habitat to a wider range of plants and animals than non-native species. Specific tree planting requirements can be conditioned to a planning permission. New tree planting is discussed further in paragraph 7.5.

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, below), 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. In certain situations, there is a limited degree of flexibility in the RPA and CEZ positioning.

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 TCP.

6.3 With regard to the CEZs, the design, materials and construction of the temporary 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 a Temporary Protective Fencing Specification is appended for reference. The protection of retained trees should, in turn, be secured by the imposition of a suitably worded planning condition.

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). In the case of the site under consideration it is recommended that all underground utilities should be routed outside tree RPAs.

Arboricultural Method Statement and Tree Protection Plan

6.5 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. Essentially, the AMS and TPP should 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. Production of and adherence to an AMS and TPP can be conditioned as part of 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) that may exist.

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 Where trees are removed in order to facilitate construction then new tree planting proposals should be included as part of the landscape design plan for the site. All tree planting and subsequent young tree management at the site should be carried out in accordance with BS 8545:2014 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 my 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. In this respect I would

note 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. 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 The site, which is located in a rural edge area in the town of Clitheroe, currently consists of several fields divided by hedgerows and ditches, with a number of trees throughout. 35 individual trees, five groups of trees and eight hedges were surveyed in respect of an outline proposal for a 275 unit residential development at the site, with all matters other than the access reserved.

8.2 Four trees were allocated high retention values, 13 trees and one group were allocated moderate retention values, ten trees, four groups and the eight hedges were allocated low retention values, and eight trees were classed as being unsuitable for retention in their current form.

8.3 All the surveyed trees and hedges are, to varying extents, visible from neighbouring properties and/or public vantage points, and the overall visual amenity that those located within the site boundaries confer is considered to be moderate.

8.4 An initial evaluation of the Illustrative Masterplan against the tree constraints information has indicated that development of the site, as shown, is projected to require the removal of five moderate quality trees, three low quality, three low quality groups, and three low quality lengths of hedge, along with segments of a moderate quality hedge.

8.5 Nonetheless, it is also apparent that the proposal as it stands includes the provision and the ability to retain a large percentage of the trees and hedges and incorporate them into areas of public open space or suitably sizeable gardens.

8.6 Any subsequent detailed development proposals should therefore include adequate provision for the incorporation of trees and hedges into the design, and that sufficient detail, in accordance with current Government guidance regarding the specifics of how these trees are to be retained and protected successfully, is included in support of any further application.

8.7 Furthermore, although implementation of the development will necessitate the removal of a number of trees and sections of hedge, it is evident that extensive new tree and hedge planting can be provided as part of the development's landscaping which, over the long-term, is projected to have a significantly and positive effect on the overall sustainability of the site's tree cover. Specific tree planting requirements in this respect can be conditioned to a planning permission.

8.8 In this respect I would note that, in regard to the previous application, the inspector had *'no cogent objection'* arising from the topic of trees, hedges and wildlife, and that *'much more new landscape would be planted'* as part of site development.

REFERENCES

BS4428:1989 - Code of Practice for General Landscape Operations. BSI British Standards,
BS3936-1:1992, Nursery Stock – Part 1: Specification for Trees and Shrubs. BSI British Standards, London.
BS3998:2010 - Tree Work - Recommendations. BSI British Standards, London.
BS4043:1989 - Transplanting Root-Balled Trees. BSI British Standards, London.
BS5837:2012 - Trees in Relation to Design, Demolition and Construction – Recommendations. BSI, London.
BS 8545:2014 - Trees: From Nursery to Independence in the Landscape – Recommendations.
National House Building Council (2008). 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.

TREE SURVEY SCHEDULE FOR PRELIMINARY ARBORICULTURAL IMPACT APPRAISAL			
Site:	Waddow View, Clitheroe, Lancashire, BB7 3DE	Survey Date:	19 June 2014
Clients:	The Huntroyde Estate, Clitheroe Auction Mart Co Ltd, Mr J Taylor, Ms Sarah Howard & Ms Samantha Howard	Job Reference:	BTC298

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)
T1	Ash	15	2x500 1x450 (ms)	N E S W	10.5 9 8.5 9.5	0.5-NE 1	M	G	▪ Stem trifurcates into sub-stems at a height of approximately 1.2m with very tight forks.	▪ Retain in context of proposed development.	20+	B1/2	318	10
T2	Horse Chestnut	8.5	310	N E S W	4 4 4 4	2-N 2	SM	G	▪ No visible structural defects.	▪ Retain in context of proposed development.	20+	B1	43	3.72
T3	Ash	15	870	N E S W	7.5 10.5 8 4.5	5-E 5	M	M	▪ Has sustained very large diameter branch failure at a height of approximately 4.5m leaving very large wound to stem with decay evident. ▪ Several *Daldinia concentrica* white-rot decay causing fungal fruiting bodies evident to stem. ▪ High risk of further primary branch failures. ▪ Short projected remaining safe life expectancy.	▪ Where practicable tree should be retained for ecological value and pruned in order to reduce risk to site users to acceptable level.	<10	U	342	10.44
T4	Ash	9.5	280	N E S W	5 4 3 3	2-N 1	Y	G	▪ Minor stem lean to east.	▪ Retain in context of proposed development.	20+	B1	35	3.36
T5	Ash	11	1x300 1x260 (ts)	N E S W	6 5 5 5	4-NE 2.5	EM	G	▪ Stem bifurcates into sub-stems at a height of approximately 1m. ▪ Large diameter partially occluded pruning wound to south side of stem at a height of approximately 0.7m.	▪ Retain in context of proposed development.	20+	B1/2	71	4.76
T6	Common Alder	15.5	770	N E S W	8 7 8 7	6-NW 4	M	M	▪ Moderate amount of deadwood to approximately 100mm. ▪ Crown showing signs of a minor reduction in vitality.	▪ Retain in context of proposed development.	40+	A2	268	9.24

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 m^2:	Root Protection Area in m^2 - 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 Observation and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m^2)	RPA Radius (m)
T7	Common Alder	13	700	N E S W	8 5 7 7	2-W 4.5	PM	M	▪ Very large basal cavity to west with extensive and evidently progressive decay within. ▪ Stem cavity at a height of approximately 5m. ▪ Short projected remaining safe life expectancy.	▪ Where practicable tree should be retained for ecological value and pruned in order to reduce risk to site users to acceptable level.	<10	U	222	8.4
T8	Common Alder	13	610#	N E S W	6 6 6 6	4-N 5	M	M	▪ Not inspected in detail due to dense ground vegetation. ▪ Crown showing signs of a minor reduction in vitality.	▪ Retain in context of proposed development.	40+	A2	168	7.32
T9	Common Alder	15	550	N E S W	3 5 5 5	N/A	EM	D	▪ Dead.	▪ Where practicable tree should be retained for ecological value and pruned in order to reduce risk to site users to acceptable level.	<10	U	137	6.6
T10	Grey Willow	7	1x100 2x150 1x200 1x320 (ms)	N E S W	6 5 5 5	1-E 1.5	M	M	▪ Multi-stemmed from ground level. ▪ Evidently coppice regrowth.	▪ Retain in context of proposed development. ▪ Coppice at ground level.	10+	C1	89	5.33
T11	Ash	7	180	N E S W	0 4.5 4.5 4	N/A 3	Y	G	▪ Growing below crown of neighbouring larger tree. ▪ Highly biased crown and moderately severe stem lean to south due to suppression.	▪ Retain in context of proposed development.	10+	C1	15	2.16
T12	Ash	13	470	N E S W	5.5 5.5 5.5 5.5	4-SW 2	SM	M	▪ Crown showing signs of a moderate reduction in vitality.	▪ Retain in context of proposed development.	20+	B1/2	100	5.64
T13	Ash	9	580#	N E S W	3 5 5 2	4-E 6	EM	MD	▪ Located on neighbouring land to opposite side of ditch. ▪ Not inspected in detail. ▪ Crown showing signs of a significant reduction in vitality. ▪ In decline with short projected remaining safe life expectancy.	▪ Protect in context of proposed development. ▪ Inform tree owners of condition.	<10	U	152	6.96
T14	Ash	15	550#	N E S W	5 7.5 5 3	4-W 4.5	EM	M	▪ Located on neighbouring land to opposite side of ditch. ▪ Not inspected in detail. ▪ 150mm diameter cavity to stem base that evidently opens into hollow. ▪ Significant stem lean to east. ▪ Short projected remaining safe life expectancy.	▪ Protect in context of proposed development. ▪ Inform tree owners of condition.	<10	U	137	6.6

No.	Species	Height	Stem Diam.	Branch Spread		Branch & Canopy Clearances	Life Stage	PC	General Observation and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m^2)	RPA Radius (m)
T15	Ash	10	500#	N E S W	4.5 6.5 2.5 4.5	2.5-W 7	EM	MD	▪ Located on neighbouring land to opposite side of ditch. ▪ Not inspected in detail. ▪ Crown showing signs of a significant reduction in vitality. ▪ In decline with short projected remaining safe life expectancy.	▪ Protect in context of proposed development. ▪ Inform tree owners of condition.	<10	U	113	6
T16	Ash	13	720#	N E S W	8 8 8 8	4 4	M	M	▪ Located on neighbouring land and therefore not inspected in detail. ▪ On opposite side of water filled ditch. ▪ Crown showing signs of a moderate reduction in vitality.	▪ Protect in context of proposed development.	40+	A1/2	235	8.64
T17	Ash	10	200#	N E S W	3 4 3.5 2.5	2	Y	G	▪ Located on neighbouring land and therefore not inspected in detail. ▪ On opposite side of water filled ditch. ▪ Growing below crown of neighbouring larger Oak, with subsequent suppression.	▪ Protect in context of proposed development.	40+	C1	18	2.4
T18	Ash	16.5	700#	N E S W	7 7 7 7	6-N 5	M	D	▪ In late stages of decline with short projected remaining safe life expectancy.	▪ Where practicable tree should be retained for ecological value and pruned in order to reduce risk to site users to acceptable level.	<10	U	222	8.4
T19	Common Alder	9.5	580	N E S W	5 6 4 3.5	1.5-W 3.5	M	M	▪ Crown showing signs of a moderate reduction in vitality.	▪ Implementation of development as proposed will necessitate tree's removal.	20+	B1/2	152	6.96
T20	Whitebeam	10	250#	N E S W	3 1 3.5 3.5	2.5-S 2	SM	G	▪ Located on neighbouring land and therefore not inspected in detail. ▪ Stem bifurcates into co-dominant primary branches at a height of approximately 4.5m. ▪ Growth partially suppressed by larger neighbouring tee in group.	▪ Protect in context of proposed development.	20+	B1/2	29	3
T21	Ash	12.5	260	N E S W	3 3 4.5 4	2.5-E 4	Y	G	▪ Severe stem curvature at a height of approximately 3m, evidently at point where previously topped.	▪ Retain in context of proposed development.	10+	C1	31	3.12
T22	Common Alder	10.5	600	N E S W	5 6.5 6.5 5	3-S 4.5	EM	M	▪ Stem bifurcates into primary branches at a height of approximately 2m. ▪ Crown showing signs of a minor reduction in vitality.	▪ Implementation of development as proposed will necessitate tree's removal.	20+	B1/2	163	7.2

No.	Species	Height	Stem Diam.	Branch Spread		Branch & Canopy Clearances	Life Stage	PC	General Observation and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m^2)	RPA Radius (m)
T23	Grey Willow	9.5	6x400 (ms)#	N E S W	5 8 9 4	1-S 1	PM	M	▪ Main stem and number of sub-stems arise at ground level. ▪ Largest stems have partially failed at ground level. ▪ Short projected remaining safe life expectancy.	▪ Where practicable tree should be retained for ecological value and pruned in order to reduce risk to site users to acceptable level.	<10	U	434	11.76
T24	Ash	12	520	N E S W	6 6 6 6	5-S 6	EM	M/P	▪ Dense ivy up stem. ▪ Evidently in in early stages of decline. ▪ Widespread adventitious growth to branches and widespread crown dieback.	▪ Where practicable tree should be retained for ecological value and pruned in order to reduce risk to site users to acceptable level.	10+	C1	122	6.3
T25	Ash	10	350#	N E S W	4.5 4.5 4.5 4.5	4.5-S 4.5	SM	M/G	▪ Located on neighbouring land on opposite side of stream and therefore not inspected in detail. ▪ Dense ivy up stem.	▪ Protect in context of proposed development.	40+	A1/2	55	4.2
T26	Ash	13.5	450#	N E S W	5.5 5.5 5.5 5.5	2.5 4	EM	M/P	▪ Located on neighbouring land on opposite side of water filled ditch. ▪ Not inspected in detail. ▪ Dense ivy up stem and into branches. ▪ Crown showing signs of a moderate reduction in vitality with widespread twig dieback.	▪ Protect in context of proposed development. ▪ Recommend tree owner to sever ivy.	10+	C1	92	5.4
T27	Ash	12	600#	N E S W	7 7 7 7	3-S 4	M	P	▪ Located on neighbouring land on opposite side of water filled ditch. ▪ Not inspected in detail. ▪ Dense ivy up stem and into branches. ▪ Crown showing signs of a substantial reduction in vitality.	▪ Recommend tree owner to sever ivy.	10+	C1	163	7.2
T28	Ash	13.5	320#	N E S W	3 2 4 3	5 4	SM	G	▪ Located on neighbouring land and therefore not inspected in detail. ▪ On opposite side of water filled ditch.	▪ Recommend tree owner to sever ivy.	20+	B1	46	3.84
T29	English Elm	15.5	360#	N E S W	2 4 3 4.5	6-N 6	SM	G	▪ Located on neighbouring land and therefore not inspected in detail.	▪ Protect in context of proposed development.	20+	B1	59	4.32
T30	Ash	11	230	N E S W	3 5 5 0	3-S 2	SM	M	▪ Highly biased crown and severe stem lean to south-east. ▪ Severe lower stem curvature. ▪ Crown showing signs of a minor reduction in vitality.	▪ Formation of access will necessitate tree's removal.	10+	C1	24	2.76

TREE SURVEY SCHEDULE FOR PRELIMINARY ARBORICULTURAL IMPACT APPRAISAL			
Site:	Waddow View, Clitheroe, Lancashire, BB7 3DE	Survey Date:	19 June 2014
Clients:	The Huntroyde Estate, Clitheroe Auction Mart Co Ltd, Mr J Taylor, Ms Sarah Howard & Ms Samantha Howard	Job Reference:	BTC298

No.	Species	Height	Stem Diam.	Branch Spread		Branch & Canopy Clearances	Life Stage	PC	General Observation and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m^2)	RPA Radius (m)
T31	Ash	7	140	N E S W	0 3 3 3	N/A 2	Y	M	▪ Highly biased crown and severe stem lean to south. ▪ 1.5m long partially occluded stock damage wound up lower stem with no signs of progressive decay within.	▪ Formation of access will necessitate tree's removal.	10+	C1	9	1.68
T32	Ash	11	190	N E S W	3 3 2 2.5	3-SW 2	Y	G	▪ Stem base abutted up to concrete path edge. ▪ Stem in contact with barbed wire and wooden rail fence.	▪ Formation of access will necessitate tree's removal.	20+	B1	16	2.28
T33	Ash	10	210	N E S W	2.5 3.5 2.5 2.5	3-E 3.5	Y	G	▪ Stem base abutted up to concrete path edge. ▪ Moderately severe curvature to lower stem.	▪ Formation of access will necessitate tree's removal.	20+	B1	20	2.52
T34	Ash	9	210	N E S W	3 3.5 2.5 2.5	3 2	Y	G	▪ Stem base abutted up to concrete kerb edge.	▪ Formation of access will necessitate tree's removal.	20+	B1	20	2.52
T35	Ash	12	1x260 1x220 1x190 (ms)	N E S W	5 5 5 6	3-SW 1.5	SM	G	▪ Stem divides into multiple sub-stems at a height of approximately 0.7m, evidently at point where previously topped, with a partially included bark union, with wooden fence rails wedged between sub-stems.	▪ Formation of access will necessitate tree's removal.	10+	C1	69	4.68
G1	2no. Common Alder	≤ 11	≤ 450#	N E S W	≤ 5 ≤ 5.5 ≤ 5 ≤ 5	≥ 5-N ≥ 4	EM	M/P	▪ Closely spaced group located on neighbouring land on opposite side of water filled ditch. ▪ Not inspected in detail. ▪ Crowns showing signs of a substantial reduction in vitality, with sparse foliage cover and extensive dieback.	▪ Protect in context of proposed development.	10+	C1	≤ 92	≤ 5.4
G2	2no. Common Alder	≤ 11	≤ 500	N E S W	≤ 4.5 ≤ 5 ≤ 5 ≤ 5	≥ 5-N ≥ 5.5	EM	M/P	▪ Closely spaced group located in hedge. ▪ Crowns showing signs of a substantial reduction in vitality, with sparse foliage cover and extensive dieback.	▪ Implementation of development as proposed will necessitate trees' removal.	10+	C1	≤ 113	≤ 6
G3	approx. 5no. Ash	≤ 12	≤ 350#	N E S W	≤ 4 ≤ 4 ≤ 4 ≤ 4	≥ 1 ≥ 3	Y-SM	G	▪ Loose group located on neighbouring land in hedge. ▪ Not inspected in detail. ▪ Several are multi-stemmed.	▪ Protect in context of proposed development.	40+	B1/2	≤ 55	≤ 4.2

TREE SURVEY SCHEDULE FOR PRELIMINARY ARBORICULTURAL IMPACT APPRAISAL			
Site:	Waddow View, Clitheroe, Lancashire, BB7 3DE	Survey Date:	19 June 2014
Clients:	The Huntroyde Estate, Clitheroe Auction Mart Co Ltd, Mr J Taylor, Ms Sarah Howard & Ms Samantha Howard	Job Reference:	BTC298

No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observation and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m^2)	RPA Radius (m)
G4	1no. Elder, 1no. Hawthorn	≤ 7	≤ 6x80 (ms)	N ≤ 1 E ≤ 3 S ≤ 2.5 W ≤ 3	N/A ≥ 0.5	Y-M	M-G	▪ Very closely spaced group growing below crown of T25. ▪ Hawthorn is young and Elder is mature.	▪ Formation of access will necessitate tree's removal.	10+	C1	≤ 17	≤ 2.35
G5	1no. Hawthorn, 1no. Sycamore, 1no. Ash	≤ 8	≤ 2x150 (ms)	N ≤ 2 E ≤ 4 S ≤ 2 W ≤ 2	N/A ≥ 0.5	Y-M	M/P-G	▪ Very closely spaced group. ▪ Stems abutted to low stone walls. ▪ Ash is young with severe stem lean to east.	▪ Formation of access will necessitate tree's removal.	10+	C1	≤ 20	≤ 2.55
H1	Hawthorn, Elder, Blackthorn, Hazel	≤ 10	≤ 200	≤ 6 wide	N/A	PM	MD-G	▪ Overgrown hedge with various small to large spaces between sections. ▪ Many plants are post-mature and in decline. ▪ Sections of hedge will require removal in order to implement development.	▪ Retain, as far as is practicable, in context of proposed development. ▪ Manage retained sections through laying and infill planting.	10+	B2/3	N/A	2.4
H2	Blackthorn, Hawthorn, Elder	≤ 2	≤ 150	≤ 2 wide	N/A	EM	G	▪ Maintained hedge.	▪ Retain in context of proposed development.	10+	C1/2	N/A	1.8
H3	Hazel, Hawthorn, Elder, Holly, Bird Cherry, Blackthorn, etc.	≤ 10	≤ 200	≤ 6 wide	N/A	M	G	▪ Overgrown hedge	▪ Retain in context of proposed development.	10+	C1/2	N/A	2.4
H4	Blackthorn, Hawthorn	≤ 2	≤ 150	≤ 2 wide	N/A	EM	G	▪ Maintained hedge.	▪ Retain in context of proposed development.	10+	C1/2	N/A	1.8
H5	Hawthorn	≤ 1.5	≤ 150	≤ 2 wide	N/A	EM	G	▪ Maintained hedge.	▪ Implementation of development as proposed will necessitate hedge's removal.	10+	C1/2	N/A	1.8
H6	Hawthorn, Holly, Elder	≤ 1.5	≤ 150	≤ 2 wide	N/A	EM	G	▪ Maintained hedge.	▪ Implementation of development as proposed will necessitate hedge's removal.	10+	C1/2	N/A	1.8
H7	Hawthorn, Holly, Ash, Hazel, Elder, Blackthorn	≤ 8	≤ 200	≤ 6 wide	N/A	EM	G	▪ Maintained to eastern section and overgrown to western section. ▪ Several young Ash trees within western section.	▪ Retain in context of proposed development.	10+	C1/2	N/A	2.4
H8	Hawthorn, Elder	≤ 1.5	≤ 150	≤ 2 wide	N/A	M	G	▪ Several short lengths of partially maintained hedge.	▪ Formation of access will necessitate hedge's removal.	10+	C1/2	N/A	1.8

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 **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	Blue
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	Grey

- TEMPORARY PROTECTIVE FENCING SPECIFICATION -

Construction Exclusion Zones (CEZs), enclosed by **Temporary Protective Fencing**, as detailed below and to be agreed with the Local Planning Authority (LPA), shall:

1. be retained in place throughout the development process, as specified in the 'Temporary Protective Fencing Construction' section below and detailed in BS5837:2012 Figure 2 (overleaf);
2. be sited in the area(s) defined by the Root Protection Areas or, if applicable, the Construction Exclusion Zones, as detailed on the associated Tree 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; and
6. preclude the storage of all development related materials and substances including fuels, oils, additives, cement and/or any other deleterious substance.

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

Temporary Protective Fencing Construction

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 3 to 5 below.
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 4 to 5 below.
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 45º 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, below) shall be fixed to every 10.0 metre length of protective fencing.
8. On completion and prior to any demolition or construction works, site preparation, excavation or delivery of plant and materials, the LPA shall inspect and approve the Temporary Protective Fencing.

Figure 1: CEZ Warning Sign

– TREE PROTECTION AREA –
KEEP OUT!

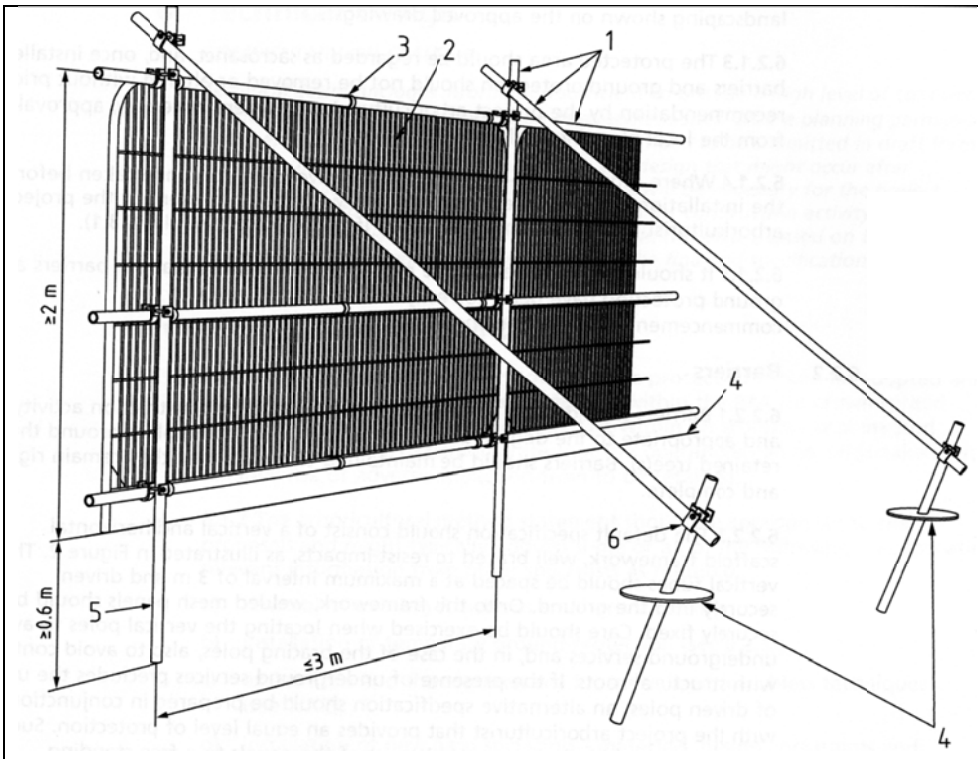
(TOWN & COUNTRY PLANNING ACT 1990)
THE TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR SUBJECTS OF A 'TREE PRESERVATION ORDER', THE CONTRAVENTION OF WHICH MAY LEAD TO CRIMINAL PROSECUTION

THE FOLLOWING MUST BE OBSERVED BY ALL PERSONNEL:

- **THE PROTECTIVE FENCING MUST NOT BE MOVED**
- **NO PERSON SHALL ENTER THE CONSTRUCTION EXCLUSION ZONE**
- **NO MACHINE, PLANT OR VEHICLES SHALL ENTER THE EXCLUSION ZONE**
- **NO MATERIALS SHALL BE STORED IN THE EXCLUSION ZONE**
- **NO SPOIL SHALL BE DEPOSITED IN THE EXCLUSION ZONE**
- **NO EXCAVATION SHALL OCCUR IN THE EXCLUSION ZONE**
- **NO FIRES SHALL BE LIT IN THE EXCLUSION ZONE**

ANY INCURSION INTO THE EXCLUSION ZONE MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY

Figure 2: BS5837:2012 Default specification for protective barrier



Key

1. Standard scaffold poles.
2. Heavy gauge 2 metre tall galvanised tube and welded mesh infill panels
3. Panels secured to uprights and cross members with wires ties
4. Ground level
5. Uprights driven into the ground until secure (minimum depth 0.6 metres)
6. Standard scaffold clamps

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 = Surveyed Individual Tree
G = Surveyed Group of Trees
H = Surveyed Hedge

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

Tree Categorisations:

Those to be Considered for Retention:

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

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

Category 'C' Tree/Group/Hedge
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
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 locations of trees T4, T11, T13, T16, T17, T20, T28 and T31, along with groups G3 and G4, were not included on the topographical survey plan provided, and their locations were subsequently plotted by the arboricultural surveyor using GPS siting at the time of the survey. As such, these locations cannot therefore be considered to be entirely accurate, and this should be taken into consideration during the detailed design stage

Root Protection Areas:

Radial Root Protection Area (RPA)
Area(s) of Ground that Should be Protected Throughout Development Works with Protective Fencing to form a Construction Exclusion Zone - see Temporary Protective Fencing Specification

Project:
WADDOW VIEW
CLITHEROE
LANCASHIRE
BB7 2DE

Clients:
THE HUNTROYDE ESTATE, CLITHEROE AUCTION MART CO LTD, MR J TAYLOR, MS SARAH HOWARD & MS SAMANTHA HOWARD

Title:
TREE CONSTRAINTS PLAN
in Relation to Outline Proposal for Residential Development

Scale:	1:500@A1
Date:	July 2014
Drawn by:	PH

Bowland Tree Consultancy Ltd
e: info@bowlandtreeconsultancy.co.uk
t: 01200 441117

Ref: BTC298-TCP Rev:

All levels and dimensions must be checked on site by the contractor prior to commencement of works. Any variations must be immediately reported to GreenSkyArchitecture.

1:1000 100m

Notes

-

- SITE BOUNDARY
- MILTON AVENUE DEVELOPMENT
- EXISTING PUBLIC FOOTPATH
- PUBLIC FOOTPATH
- EXISTING TREES
- RETAINED HEDGEROW
- PUBLIC OPEN SPACE
- HOUSING BLOCKS
- ROADS
- BUS ACCESS
- ROAD - SHARED SURFACE

Revision	Date	Note
-	-	-

GREENSKY ARCHITECTURE

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Client

Project Title
WADDOW VIEW, CLITHEROE

Drawing Title
ILLUSTRATIVE MASTER PLAN

Drawn	Checked	Date
MS		11.06.2014

Drawing Number	Scale	Revision
1110.1	1:1000 @ A1	

Drawing Status

Information	Draft	Approval	Tender	Construction	As Built
☐	☐	■	☐	☐	☐