Arboricultural Impact Assessment

of Outline Proposal for Residential Development at

Waddow View, Clitheroe, Lancashire

Prepared by:

Bowland Tree Consultancy Ltd

October 2012

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
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Prepared by:	Phill Harris MSc BSc(Hons) HND CEnv MArborA MICFor Chartered Arboriculturist
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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 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 and other measurement 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 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 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.

The potential influence of trees upon buildings or other structures resulting from the effects of their roots abstracting water from shrinkable load-bearing soils is not considered herein. The advice of a structural engineer should be sought with regard to appropriate foundation depths for new buildings with reference to NHBC Standards Chapter 4.2 (NHBC, 2008).

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(s), as named. 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

PLAN

1.0 INTRODUCTION

Terms of Reference

1.1 Bowland Tree Consultancy Ltd is 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 a preliminary analysis of the impacts that the proposed development would potentially have on trees located both within and immediately adjacent to the site 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 on the subject.

Site Visit, Data Collection and Tree Impact Plan

1.3 Further to this instruction I confirm that I visited the site on 25 May and 4 September 2012 and carried out an 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.

1.4 During my survey I identified 29 individual trees (prefixed ‘T’), seven groups of trees (prefixed ‘G’) and seven 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 land surveyor and, for the purpose of this report, the plan details are presumed to be accurate. The TCP details the existing site with the readily definable tree constraints 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. However, I have not been informed if there is a TPO covering any of the surveyed trees, and it is therefore essential to contact the Planning Department of Ribble Valley Borough Council 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.

Felling Licences

2.5 Subject to certain exemptions the Forestry Act (1967) requires that a 'Felling Licence' be obtained to fell 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 this 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 boundary 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 throughout (see Fig. 1, overleaf). According

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

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 and residential properties, to the south by residential properties, fields, and Back Commons, and to the west by fields. 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 northern section of the site, looking east

3.3 A detailed landscape character appraisal of the locality was not carried out as part of this assessment, although I did make a general appraisal of the visual amenity that the trees within the site confer on the locality based on their visual prominence and overall contribution to the landscape, as discussed in paragraph 4.3.

4.0 THE TREE POPULATION

4.1 As noted previously, 29 individual trees, seven groups of trees and seven 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 oak and 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 17 metres, have maximum diametrical crown spreads of up to 20 metres and stem diameters of up to 840mm. 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 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'. 'C' category trees are those considered to be of 'low quality' which, as was stated in Table 1 of the preceding guidance (BS5837:2005)*, "will usually not be retained where they would pose a significant constraint on development"*. In turn, 'U' category trees are those that are in relatively poor condition whereby they should be removed for reasons of sound arboricultural management regardless of any plans for development of the site.

4.6 As detailed in Table A (below) five trees and two groups were categorised high values of 'A', ten trees and four groups were categorised moderate values of 'B' and five trees, one group and seven hedges were categorised low values of 'C'. In addition, nine trees were allocated 'U' categorisations due to short projected remaining safe life expectancies for various reasons including poor physiological and/or structural condition, and are therefore recommended for removal regardless of the proposal.

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

	Ret. Cats.	Tree/Group/ Hedge Numbers	Totals
Trees, groups & hedges of a moderate or high quality that should be afforded appropriate consideration in the context of development	**'A'**	T5, T10, T16, T19, T21, G5, G6	*5 Trees (17.25%)* *2 Groups (28.57%)*
	'B'	T1, T2, T4, T8, T12, T22, T23, T26, T27, T28, G1, G2, G3, G4	*10 Trees (34.5%)* *4 Groups (57.14%)*
Trees, groups & hedges of a low quality that should not be considered a material constraint to development	**'C'**	T6, T17, T24, T25, T29, G7, H1, H2, H2, H4, H5, H6, H7	*5 Trees (17.25%)* *1 Group (14.29%)* *7 Hedges (100%)*
Trees, groups & hedges that should be removed for sound management reasons regardless of site proposals	**'U'**	T3, T7, T9, T11, T13, T14, T15, T18, T20	*9 Trees (31%)*
			= 29 Trees, 7 Groups & 7 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 with all matters other than the access reserved. Accordingly, I have been provided with an Illustrative Masterplan to that effect, as prepared by MCK Associates and appended at Plan 2. Vehicular access is proposed from two points, off Waddington Road to the north and Back Commons to the south-east, as detailed on the Illustrative Masterplan.

5.2 As the Masterplan is illustrative in nature I have not made a detailed appraisal of the development's potential impacts on individual trees. However, it is evident that the proposal

as it stands includes the provision and the ability to retain the majority of the trees on site and incorporate them into areas of public open space or suitably sizeable gardens. It is therefore important that, if outline permission is granted, then the subsequent detailed development proposals should include adequate provision for the incorporation of the 'A' and 'B' category trees 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). This could be covered and controlled via a suitably worded condition attached to an outline planning permission.

Mitigation for Subsequent Tree Losses as Part of Site Landscaping

5.3 Extensive new tree planting should be included as part of any subsequent detailed development proposals, with an associated landscape scheme detailing such matters submitted in support 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, whitebeam, ash, common oak and silver birch. The provision of locally native trees 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), 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. 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 agreed with the LPA, which can be secured by the imposition of a suitably worded planning condition on the outline permission. A Temporary Protective Fencing Specification is included at Appendix Two and the extents of the RPAs should dictate actual locations of the CEZs of site in any subsequent proposal.

Underground Utilities

6.3 The installation of underground utilities in close proximity to trees can cause serious damage to their roots. As such, utilities should 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).

Arboricultural Method Statement and Tree Protection Plan

6.4 It is recommended that, where considered expedient by the LPA, an Arboricultural Method Statement and a Tree Protection Plan be prepared detailing special mitigation construction. Essentially, the AMS and TPP should describe 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 or controls 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 Contractors should be made aware that, should any significant tree defects become apparent during operations that would not have been immediately obvious to the surveyor, then such defects should be notified immediately to the client and subsequently confirmed to the consultant within five working days.

New Tree Planting

7.5 All tree planting at the site should be carried out in accordance with BS4428:1989 - Code of Practice for General Landscape Operations, BS3936-1:1992, Nursery Stock – Part 1: Specification for Trees and Shrubs and BS4043:1989, Transplanting Root-Balled Trees where applicable.

Retained Tree Management

7.6 Any tree risk management appraisal 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. 29 individual trees, seven groups of trees and seven hedges areas were surveyed in respect of an outline proposal for a residential development at the site.

8.2 Five trees and two groups were allocated high retention values, ten trees and four groups were allocated moderate retention values, five trees, one group and seven hedges were allocated low retention values, and nine trees were categorised as unsuitable for retention.

8.3 All the trees 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 evaluation of the Illustrative Masterplan has indicated that development of the site as shown can be satisfactorily achieved whilst retaining the majority of the surveyed trees, in particular those of moderate and high quality, by incorporating them into areas of public open space or suitably sizeable gardens.

8.5 As such, it is therefore imperative that any subsequent detailed development proposals include adequate provision for the incorporation of the high and moderate quality trees 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.

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.
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.

APPENDIX ONE:

TREE SURVEY SCHEDULE & BS5837:2012 - TABLE 1

TREE SURVEY SCHEDULE			
Site:	Waddow View, Clitheroe, Lancashire	Assessment Dates:	25 May & 4 September 2012
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.	▪	20+	B1/2	318	10.06
T2	Horse Chestnut	7	270	N E S W	4 4 4 4	2-N 2	SM	G	▪ No visible structural defects.	▪	20+	B1	33	3.24
T3	Ash	15	840	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* whiterot decay causing fungal fruiting bodies evident to stem. ▪ High risk of further primary branch failures. ▪ Short projected remaining safe life expectancy.	▪ Remove tree in context of proposals due to short projected remaining safe life expectancy.	<10	U	319	10.08
T4	Ash	9	220	N E S W	4.5 4 3 3	2-N 1	Y	G	▪ No visible structural defects.	▪	40+	B1	22	2.64
T5	Whitebeam	9.5	230	N E S W	3 3 3.5 3.5	2.5-S 2	SM	G	▪ Stem bifurcates into co-dominant primary branches at a height of approximately 4.5m.	▪	40+	A1/2	24	2.76
T6	Ash	9.5	230	N E S W	3 3 4 4	2.5-E 4	Y	G	▪ Severe stem curvature at a height of approximately 3m.	▪	10+	C1	24	2.76

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 half nearest 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

TREE SURVEY SCHEDULE		Surveyor:	Phill Harris – Chartered Arboriculturist	Page: 2 of 6
Site:	Waddow View, Clitheroe, Lancashire	Assessment Dates:	25 May & 4 September 2012	
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)
T7	Goat Willow	9.5	400	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.	▪ Remove tree in context of proposals due to short projected remaining safe life expectancy.	<10	U	579	13.58
T8	Common Alder	10.5	600	N E S W	5 5 6.5 5	3-S 4.5	EM	M	▪ Stem bifurcates into primary branches at a height of approximately 2m.	▪	20+	B2	163	7.2
T9	Ash	11	520	N E S W	6 6 6 6	5-S 6	EM	MD	▪ In decline with short projected remaining safe life expectancy.	▪ Remove tree in context of proposals due to short projected remaining safe life expectancy.	<10	U	122	6.24
T10	Ash	10	350	N E S W	4.5 4.5 4.5 4.5	4.5-S 4.5	SM	G	▪ Not inspected in detail. ▪ Ivy up stem.	▪	40+	A1/2	55	4.2
T11	Ash	16.5	700	N E S W	7 7 7 7	6-N 5	M	D	▪ Dead.	▪ Remove tree in context of proposals due to short projected remaining safe life expectancy.	<10	U	222	8.4
T12	Common Alder	9	570	N E S W	5 6 4 3.5	1.5-W 3.5	M	M	▪ Crown showing signs of a reduction in vitality.	▪	20+	B2	147	6.84
T13	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. ▪ In decline with short projected remaining safe life expectancy.	▪ Inform tree owners of condition.	<10	U	113	6
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. ▪ Significant stem lean to east. ▪ Short projected remaining safe life expectancy.	▪ Inform tree owners of condition.	<10	U	137	6.6
T15	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. ▪ In decline with short projected remaining safe life expectancy.	▪ Inform tree owners of condition.	<10	U	152	6.96

TREE SURVEY SCHEDULE		Surveyor:	Phill Harris – Chartered Arboriculturist	Page: 3 of 6
Site:	Waddow View, Clitheroe, Lancashire	Assessment Dates:	25 May & 4 September 2012	
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)
T16	Ash	13	430	N E S W	5.5 5.5 5.5 5.5	4-SW 2	SM	G	▪ No visible structural defects.	▪	40+	A1/2	84	5.16
T17	Goat Willow	7	1x280 1x200 2x150 (ms)	N E S W	6 5 5 5	1-E 1.5	M	M	▪ Multi-stemmed from ground level.	▪	10+	C1	74	4.85
T18	Common Alder	15	550	N E S W	3 5 5 5	N/A	EM	D	▪ Dead.	▪ Remove tree but retain 4m tall stem.	<10	U	137	6.6
T19	Common Alder	13	600	N E S W	6 6 6 6	4-N 5	M	M	▪ No visible structural defects.	▪	40+	A2	163	7.2
T20	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.	▪ Remove tree in context of proposals due to short projected remaining safe life expectancy.	<10	U	222	8.4
T21	Common Alder	15.5	700	N E S W	8 7 8 7	6-NW 4	M	G	▪ Moderate amount of deadwood to approximately 100mm.	▪	40+	A2	222	8.4
T22	Ash	11	1x280 1x240 (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.	▪	20+	B1/2	62	4.43
T23	Ash	13.5	450	N E S W	5.5 5.5 5.5 5.5	2.5 4	EM	M	▪ Located on neighbouring land on opposite side of water filled ditch. ▪ Not inspected in detail. ▪ Dense ivy up stem and into branches.	▪ Sever ivy.	20+	B1/2	92	5.4

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)
T24	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.	▪ Sever ivy.	10+	C1	163	7.2
T25	Ash	11	300	N E S W	3 5 5 0	3-S 2	SM	G	▪ Highly biased crown and severe stem lean to south-east. ▪ Severe lower stem curvature.	▪	40+	C1	41	3.6
T26	Ash	9	190	N E S W	3 3 2 2.5	3-SW 2	Y	G	▪ Stem base abutted up to concrete kerb edge. ▪ Stem in contact with barbed wire and wooden rail fence.	▪	40+	B1	16	2.28
T27	Ash	9	200	N E S W	2.5 3.5 2.5 2.5	3-E 3.5	Y	G	▪ Stem base abutted up to concrete kerb edge. ▪ Moderately severe curvature to lower stem.	▪	40+	B1	18	2.4
T28	Ash	9	190	N E S W	3 3.5 2.5 2.5	3 2	Y	G	▪ Stem base abutted up to concrete kerb edge.	▪	40+	B1	16	2.28
T29	Ash	12	1x420 1x250 (ts)	N E S W	5 5 5 5	3-SW 1.5	SM	G	▪ Stem bifurcates at a height of approximately 0.7m with a partially included bark union, with wooden fence rails wedged between sub-stems. ▪ Sub-stem to east trifurcates at a height of approximately 1.5m with tight forks at point where it was evidently previously cut to.	▪	10+	C1	108	5.87
G1	approx. 5no. Ash	≤ 11	≤ 350	N E S W	≤ 4 ≤ 4 ≤ 4 ≤ 4	≥ 1 ≥ 3	Y-SM	G	▪ Loose group located on neighbouring land and in hedge. ▪ Several are multi-stemmed.	▪	40+	B1/2	≤ 55	≤ 4.2
G2	2no. Common Alder	≤ 11	≤ 500	N E S W	≤ 4.5 ≤ 5 ≤ 5 ≤ 5	≥ 5-N ≥ 5.5	EM	M	▪ Closely spaced group located in hedge. ▪ Crowns showing signs of a reduction in vitality.	▪	20+	B1/2	≤ 113	≤ 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)
G3	2no. Common Alder	≤ 11	≤ 450	N ≤ 5 E ≤ 5 S ≤ 5 W ≤ 5	≥ 5-N ≥ 4	EM	M	▪ Closely spaced group located on neighbouring land on opposite side of water filled ditch.	▪	20+	B1/2	≤ 92	≤ 5.4
G4	2no. Ash	≤ 14	≤ 300	N ≤ 3 E ≤ 5 S ≤ 4 W ≤ 4	≥ 7 ≥ 5	SM	G	▪ Located on neighbouring land on opposite side of water filled ditch. ▪ Not inspected in detail.	▪	40+	B2	≤ 41	≤ 3.6
G5	Ash, Sycamore	≤ 17	≤ 650	N ≤ 8 E ≤ 8 S ≤ 8 W ≤ 8	≥ 2 ≥ 1	SM-EM	M-G	▪ Closely spaced group located on neighbouring land. ▪ Not inspected in detail.	▪	40+	A2	≤ 191	≤ 7.8
G6	Ash, Sycamore, English Elm	≤ 17	≤ 550	N ≤ 6 E ≤ 6 S ≤ 6 W ≤ 6	≥ 2 ≥ 1	Y-EM	M-G	▪ Closely spaced group located on neighbouring land. ▪ Not inspected in detail.	▪	40+	A2	≤ 137	≤ 6.6
G7	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. ▪ Ash is young with severe stem lean to east. ▪ Stems abutted to low stone walls.	▪	10+	C1	≤ 20	≤ 2.55
H1	Hawthorn, Holly, Ash, Hazel, Elder, Blackthorn	≤ 8	≤ 200	≤ 6 wide	N/A	EM	G	▪ Maintained to eastern section and overgrown to western section.	▪	10+	C1/2	N/A	2.4
H2	Hawthorn, Holly, Elder	≤ 1.5	≤ 150	≤ 2 wide	N/A	EM	G	▪ Maintained hedge.	▪	10+	C1/2	N/A	1.8
H3	Hawthorn	≤ 1.5	≤ 150	≤ 2 wide	N/A	EM	G	▪ Maintained hedge.	▪	10+	C1/2	N/A	1.8
H4	Blackthorn, Hawthorn	≤ 2	≤ 150	≤ 2 wide	N/A	EM	G	▪ Maintained hedge.	▪	10+	C1/2	N/A	1.8
H5	Hazel, Hawthorn, Elder, Holly, Bird Cherry, Blackthorn, etc.	≤ 10	≤ 200	≤ 6 wide	N/A	M	G	▪ Overgrown hedge	▪	10+	C1/2	N/A	2.4

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)
H6	Hawthorn, Elder, Blackthorn, Hazel	≤ 10	≤ 200	≤ 6 wide	N/A	M	G	▪ Overgrown hedge with various large spaces between sections.	▪	10+	C1/2	N/A	2.4
H7	Blackthorn, Hawthorn, Elder	≤ 2	≤ 150	≤ 2 wide	N/A	EM	G	▪ Maintained hedge.	▪	10+	C1/2	N/A	1.8
H7	Hawthorn, Elder	≤ 1.5	≤ 150	≤ 2 wide	N/A	M	G	▪ Several short lengths of partially maintained hedge.	▪	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 defined on the Tree Protection Plan (TPP);
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 Consulting Arboriculturist shall inspect the Temporary Protective Fencing.

Figure 1: CEZ Warning Sign

– TREE PROTECTION AREA –
KEEP OUT!

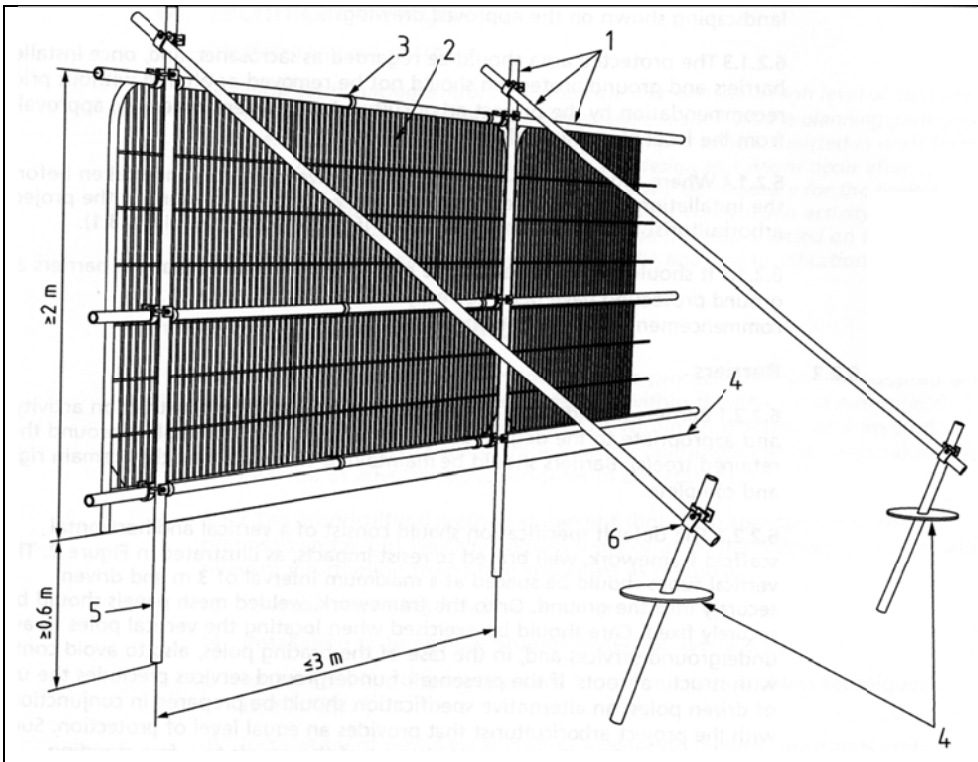
(TOWN & COUNTRY PLANNING ACT 1990)
THE TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR SUBJECTS OF A 'TREE PRESERVATION ORDER', THE CONTRAVENTION OF WHICH MAY LEAD TO CRIMINAL PROSECUTION

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

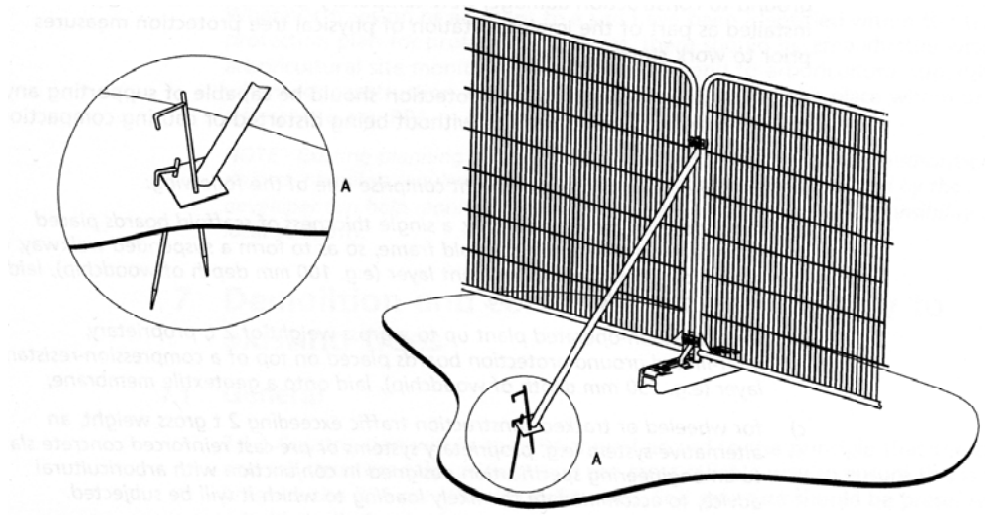
Figure 2: BS5837:2012 Default specification for protective barrier



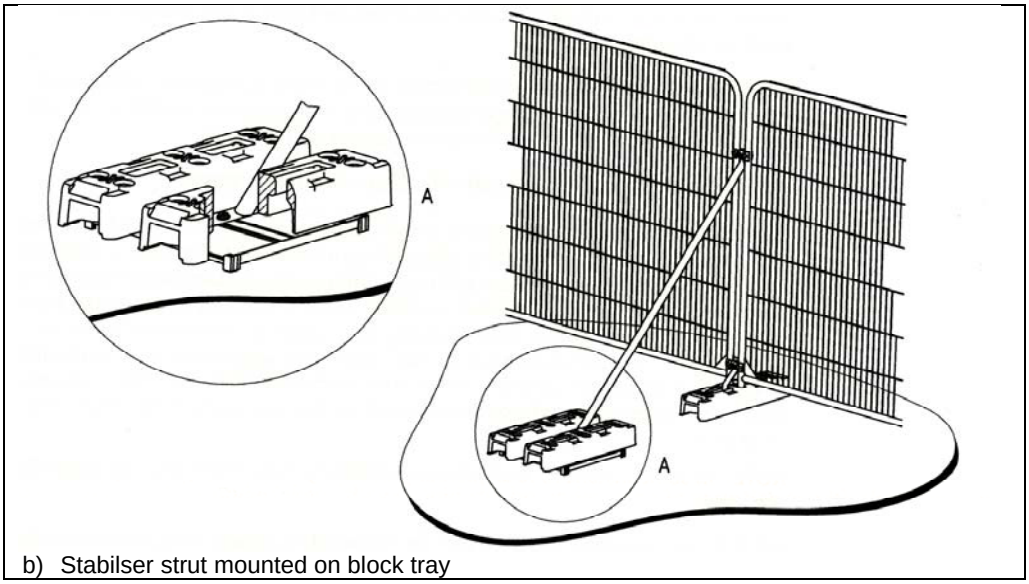
Key

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

Figure 3: BS5837:2012 Examples of above-ground stabilising systems



a) Stabilser strut with base plate secured with ground pins



b) Stabilser strut mounted on block tray

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:

Trees 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

Trees 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

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

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:	October 2012
Drawn by:	PH
Checked by:	PH

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Ref: BTC298-TCP Rev: A

Illustrative masterplan

Waddow View
Clitheroe

Layout narration

1. New primary entrance with carefully designed landscape features create an inviting access point.

2. Carefully spaced outward facing feature blocks, overlooking a landscaped amenity area creating an attractive setting along Kirkmoor Road. On street parking restricted providing an uncluttered frontages at the gateway into the development.

3. Low density blocks fronting Kirkmoor Road, building lines respected and boundary treatments carefully selected to help assimilate the buildings into the landscape setting. Existing hedgerow maintained.

4. Small hard landscaped court with soft edges.

5. Primary nodal area creates impact upon arrival. Formal open space encapsulated by strong blocks. Orientation and type critical to the success of this area. Dual aspect gateway blocks frame routes in every direction and visually permeable boundary treatments softened by landscaping promote a legible well defined area.

6. Rural setting with hedge lined streets, careful consideration to vista terminations at the open space area.

7. Outward facing blocks, well spaced creating a soft edge overlooking the openspace areas.

8. Attractive landscape feature and setting which highlights important pedestrian/cycle routes.

9. Street follows a route which forms an integral part of and interacts with the building form, open space areas and landscape features. This principle of interaction along this important route creates an interesting and noteworthy journey through the development.

10. Prominent blocks with mass, character and a suitable street presence to stand at the head of these important vistas. Frontage parking minimised creating uncluttered views of this important area.

11. Well connected and accessible open space area. Perception changes depending on which approach route is taken, achieved by carefully manipulating vistas, pinch points, block massing and positioning. Attractive and distinctive landscaping and street furniture adds further to this effect.

12. Careful positioning and orientation of blocks around this attractive amenity area. Existing water feature retained and enhanced.

13. Irregular varied streets 'nuts and bolts' approach, careful consideration given to parking arrangements. Soft edges and tree planting will help create an attractive and inviting environment. Pedestrian, priority area which help prevent 'rat running'.

14. Bus only barrier allowing bus only access to the northern part of the development.

Key

- Focal building/s
- Landmark building/s
- Primary vista enforcing desire routes
- Potential/existing footpath Cycle/links connections
- Existing Footpath/cycle routes to wider area
- New pedestrian/ cycle link
- Hard landcaped pedestrian priority street.
- Crèche
- Bus street only connection.

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Job no: 11-021-1002 • Scale: 1/1000 • Sheet Size: A1 • Date: May 2012 • Revision: B • Drawn: M.King

Note this layout plan is for indicative purposes only for the outline planning application