Tree Care Consultancy
ARBORICULTURAL CONSULTANTS

Arboricultural Impact Assessment
Land adjoining 50 Littleworth Lane
Monk Bretton
Barnsley
Report Reference: TCC-2031-1

18 August 2024

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1 Introduction

1.1 Instruction and Brief

1.1.1 Tree Care Consultancy was commissioned by Mr. and Mrs. Brown, the owner of the site, to carry out a tree survey and prepare an Arboricultural Impact Assessment to accompany a planning application for 2No. detached dwellings at 50 Littleworth Lane, Monk Bretton, Barnsley. The report produced includes the following information:

- A tree survey, undertaken in accordance with British Standard 5837:2012 'Trees in relation to design, demolition and construction' – Recommendations.
- A Tree Constraints Plan at appendix 4 and a Tree Impact Plan at appendix 5 that together help highlight the potential development limitations trees and hedgerow material pose on site.
- An Arboricultural Impact Assessment which evaluates any potential impact the proposal may have on surrounding trees.

1.1.2 This report is based on site observations and information provided by Stamford Geomatics and Fleming Homes . The client may choose to accept or disregard the recommendations made in this report or seek additional advice.

1.1.3 This report is only concerned with trees in relation to construction. This report makes no attempt to provide a full safety inspection of the trees surveyed. It should not be seen as an alternative for a Tree Hazard Assessment which is specific to minimising the risk and liability associated with trees.

1.1.4 Climatic conditions including storms, drought and temperature-related factors can cause damage and failure in apparently healthy trees. It should be remembered that all trees do pose a risk and whilst every effort has been made to detect any major defects in inspected trees, no guarantee can be given as to their safety. Although the risk should be managed to an acceptable level, no tree can always be guaranteed as safe.

1.1.5 This report is based on Visual Tree Assessment (VTA) methodology, as devised by Mattheck (1991). V.T.A is a ground level visual assessment of a tree, which is carried out to identify obvious mechanical defects, signs of ill health, potential mechanical failure and the suitability of a tree to a site. The survey is compiled in accordance with British Standard 5837:2012 'Trees in relation to design, demolition and construction' - Recommendations with Root Protection Areas (RPA's) based upon section 4.6 of the document.

1.1.6 The tree survey was undertaken by Steve Waterson on 8 August 2024. The weather on the survey date was bright and dry with no visibility constraints.

1.1.7 Measurements were calculated using the necessary instruments or estimated where access could not be gained. No climbing inspections or decay detection analysis was undertaken.

1.1.8 Details explaining the criteria and methodology used in generating the tree survey schedule is included in Appendix 1 and 2. Trees were graded using table 1 of BS5837. The resulting tree survey data is included within the tree survey schedule at Appendix 3.

1.1.9 This survey should be read in conjunction with the Tree Constraints Plan (TCP - appendix 4) and Tree Impact Plan (TIP- Appendix 5) which have been prepared by overlaying tree survey data onto the proposed topographical survey and site layout drawing. The author has relied on the accuracy of these drawings in the production of this report.

1.2 Site Description

1.2.1 The site comprises an irregular shaped plot of land supporting a detached garage and mobile home accessed from Littleworth Lane to the east via a short private drive. Ground levels vary within the site with the most notable changes occurring where the site falls away towards the southern and western most site boundaries. The site boundaries are defined by a range of fencing, outbuildings and hedgerow material. The surrounding land use is predominantly residential save for land to the west of the site that by contrast is open in character albeit supporting woodland habitat.

1.2.2 Tree cover within the immediate neighbourhood is moderate in terms of numbers and species mix, being defined by the prevailing land use and topography.

1.3 Tree Status

1.3.1 It is understood the site is not located within a Conservation Area and that no trees within the site or neighbouring property are subject of Tree Preservation Order (TPO) controls. In the case of trees that are subject of TPO, Conservation Area controls or planning application procedures it is essential the Local Authority's advice is sought and where necessary consent obtained prior to undertaking any tree removal or pruning operations.

1.4 Soil Assessment

1.4.1 No soil testing was undertaken and no soil information was provided for the author. The precise soil type could only be confirmed with further soil investigation/analysis.

2 Tree Quality Assessment

2.1.1 As shown in table 1 the tree survey includes 2No. individual trees and 3No. hedgerows. Of these 2No. individual trees (T1 & T4) and 2No. hedgerows (H3 & H5) were identified as low category 'C' material. The remaining item (H2) was identified as a seriously defective category 'U' hedgerow.

Table 1:

Category	Category Description	Tree Numbers
'A'	Trees of high quality, with life expectancy in excess of 40 years	Nil
'B'	Trees of moderate quality, with life expectancy in excess of 20 years	Nil
'C'	Trees of low quality with life expectancy in excess of 10 years or young trees	T1, H3, T4, H5
'U'	Seriously defective trees that cannot be retained in present context for longer than 10 years	H2
Total number of trees:		2No. individual trees & 3No. hedgerows

2.1.2 The sites low-quality category "C" and seriously defective category "U" tree and hedgerow material are not considered visually significant items within the development context. Should the need arise any of these items would be readily replaceable under arboricultural management protocols and/or within the context of the proposed development.

2.1.3 The Local Planning Authority may be prepared to accept the removal of trees in a poor condition or with a minimal, safe, useful life expectancy. This usually includes category 'U' and 'C' trees. The removal of higher category "A" and "B" grade trees may also on occasions be viewed acceptable particularly where compensatory replacement planting can be provided or where in overall planning terms the loss is found to be justified.

3 Arboricultural Impact Assessment

3.1.1 The following section evaluates the proposed site layout in relation to trees. Any tree and design conflicts are highlighted and possible remedial action recommended. The assessment is based on the surveyor's findings and drawings provided by Flemming Homes.

3.1.2 The proposal seeks to construct 2No. detached dwellings that will utilize an existing site access and retained garage.

3.1.3 The footprint of unit 2 will impact upon the RPA and easterly extending crown of Noray Spruce T1 such that the removal of this tree is recommended.

3.1.4 For arboricultural management reasons alone the removal of H2 is recommended together with height and lateral reduction work to H3 and H5. This issue is discussed in further detail under section 3.2.

3.2 Trees to be removed to accommodate the proposal

3.2.1 As demonstrated in Table 2 the removal of 1No. Norway Spruce T1 will be required to accommodate the proposed development. It is apparent the constrained growing position of T1 will irrespective of the development proposal increasingly conflict with neighbouring structures such the tree will adversely impact on its retention beyond the relative short term.

3.2.2 The small section of conifer hedging bordering the southern most site boundary contains several dead items and as such is recommended for removal and replacement irrespective of the development proposal.

3.2.3 The loss of T1 and H2 would not cause demonstrable harm to visual amenity within the local area particularly if the loss can be mitigated by the introduction of additional planting that will be possible within the development context.

3.2.4 As far as H3, T4 and H5 are concerned it will be feasible to retain these items.

Table 2:

Tree categories A, B, C & U	Trees to be retained	Trees to be removed for development	Trees to be removed for arboricultural management reasons
'A'	Nil	Nil	Nil
'B'	Nil	Nil	Nil
'C'	H3, T4, H5	T1	Nil
'U'	Nil	Nil	H2

3.3 Below ground constraints

3.3.1 The area of roots that need to be protected around a tree to try to ensure it does not suffer damage during the construction process is called the Root Protection Area (RPA).

3.3.2 As recommended in BS5837 we have plotted the RPAs (in magenta) onto the attached Tree Constraints Plan (TCP) taking full account of the surrounding topographical factors, tree condition and the probable root disposition.

3.3.3 Construction of unit 2 will occupy ground within the RPA of Norway Spruce T1 and it is recommended that the tree be removed to accommodate the proposal.

3.3.4 Construction of pathways at plots 1 and 2 will encroach marginally within the RPA's of H3 and H5. To reduce injuries to these hedgerows the incorporation of a no dig Geogrid footpath construction is recommended, details of which can be effectively controlled by imposition of a suitably worded planning condition requiring the submission and approval of a pre-commencement Arboricultural Method Statement (AMS) or if necessary, an AMS can be submitted as part of the planning application.

3.4 Above Ground Constraints

3.4.1 No pruning will be required to accommodate the proposed development. There is sufficient space between the proposed building footprints and the surrounding tree/hedgerow material to install scaffolding without the need to undertake facilitation pruning. However it will be noted that in order to sustain conifer hedging H3 and H5 beyond the short term they will require height and lateral reduction work. This work will be necessary irrespective of the proposed development.

3.1 Alterations to Ground Levels

3.1.1 A rise or reduction in soil level can have major implications on the health and longevity of trees. There will be no requirement to alter any levels within the RPA's of retained trees and hedgerow material.

3.2 Tree Protection

3.2.1 A protective fence and/or ground protection will need to be installed prior to the commencement of any site works e.g., before any materials are brought on site. Tree protection fencing will have signs attached to it stating that this is a Construction Exclusion Zone (CEZ) and that **NO WORKS** are permitted within the CEZ. The protective fence may only be removed following completion of all construction works. It is presumed this is a matter the Local Planning Authority would be agreeable to conditioning as part of a detailed planning permission or if necessary, an AMS can be submitted as part of the planning application.

3.3 Material Storage

3.3.1 No material storage will be required within the Construction Exclusion Zone or within the vicinity of retained trees. It is intended that the existing drive, garage and garage forecourt will function as a cement mixing area and material store for the duration of construction work.

3.4 Services

3.4.1 No new services or soak-a-ways are to be sited or constructed within the RPA of the retained trees. In the case of new surface water and foul drainage these services will be routed eastwards to Littleworth Lane clear of retained vegetation.

3.5 Landscaping

3.5.1 The proposed development provides opportunities for planting that will ensure continuity of tree and hedgerow cover for the enjoyment of future generations. It is respectively requested that the LPA agree to condition landscaping as part of a detailed planning permission.

4 Conclusions

4.1.1 From the tree survey findings, comments and observations, it will be seen there are no significant conflicts with the proposed development and retained tree/hedgerow material.

4.1.2 The proposed development provides opportunities for new planting that together with the recommended arboricultural management work will ensure continuity of tree and hedgerow cover for the enjoyment of future generations.

4.1.3 Providing tree protection methods are implemented in accordance with an agreed Arboricultural Method Statement and Tree Protection Plan, the current vegetation can be adequately safeguarded during and beyond the course of construction.

4.1.4 The protection of trees and their subsequent health and future potential is dependent upon all persons operating within the site. Communications are vitally important to ensure that all parties understand the reason for tree protection and its continued existence. Providing all necessary tree protection works are undertaken, retained trees and development alike will satisfactorily coexist.

4.1.5 It is hoped that this report and recommendations provides all necessary information, however, should there be any queries or should clarification of any points be required, please contact the report author.

Appendices

Appendix 1 - Explanation of Survey Details

Tree Id- Each tree/group has been given a unique number, which coincides with the drawings located in appendix 3.

Species & botanical name- where identifiable the full botanical name has been given. Where a cultivar, variety or species cannot be accurately given the genus name only will be given.

Height (m)- measured approximately to the nearest 1m. If height issues are critical, measurements can be collected accurately using optical instruments.

No of stems- the number of separate stems each individual tree has.

Stem Dia @1.5m (mm)- the diameter of the given tree at 1.5m above soil level, (on sloping ground taken on the up-slope side of the tree base). Where the tree is multi-stemmed measurements will be record for each stem.

Spread- indicates the crown radius from the base of tree in four compass directions, recorded to the nearest metre.

Crown height + direction (m)- recorded as the first significant branch and direction of growth.

Life stage- described as young, semi-mature, early-mature, mature or over-mature.

Physiological condition (P)- an assessment of the trees health. Considers vitality, die back and the presence of disease. Described as Good = no significant health problems Fair = symptoms of ill health that can be remediated Poor = significant ill health.

Structural condition (S)- an assessment of the trees structural condition. Described as Good = no significant defects Fair = significant defects that can be remediated Poor = significant defects no remedy.

Observations – negative and positive- narrative comments on general condition, significant defects and overall appearance (e.g., the presence of any decay).

Preliminary management recommendations- e.g., requires pruning or further investigation of suspected defects is needed.

Life expectancy- preliminary management recommendations, e.g., requires pruning or further investigation of suspected defects is needed.

Retention Category- Each tree/group is identified with a retention category in accordance with BS5837 (an in depth explanation is provided on the following page)

RPA radius (m)- minimum area in metres which should be left undisturbed around each retained tree.

Appendix 2 - Cascade Chart for Tree Quality Assessment (Extract from BS5837 table 1)

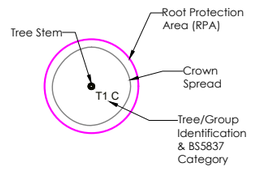
Category and definition	Criteria (including subcategories where appropriate)			Identification on Plan
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have a serious, irremediable, 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 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			DARK RED
TREES TO BE CONSIDERED FOR RETENTION				
Category and definition	**Criteria – Subcategories**			**Identification on Plan**
	1 Mainly arboricultural values	**2 Mainly landscape values**	**3 Mainly cultural values, including conservation**	
Category A **Trees of a 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 essential components of groups, or of 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)	LIGHT GREEN
Category B **Those of moderate quality** with and 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 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	MID BLUE
Category C **Those of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of a 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 landscape value; and/or trees offering low or only temporary/transient screening benefits	Trees with no material conservation or other cultural values	GREY

Appendix 3 - Tree Survey Schedule

Tree ID	Species, Botanical Name	Height (m)	No of stems	Stem @ 1.5M (mm)	Spread - N,E,S,W				Crown height+ direction (m)	Life stage	Physiological (P) and Structural (S) condition. Observations- negative and positive	Recommendations	Life expectancy	Retention category	RPA Radius (m)
T1	Norway Spruce, *Picea abies*	13	1	300	4	3	4	4	4 east	Semi mature	S=Good, P=Good. Constrained location close to boundary, growing tight against screen fencing, concrete gravel boards and neighbouring timber shed. Likely to increasingly conflict with fence line and adjoining shed. Growth of easterly spreading roots may have been impeded by gravel board which retains the planting position. Previously crown lifted to 3m. stem. Maintains good vitality with no defects evident.	Remove to accommodate proposed development.	10 to 20 yrs	C2	3.6
H2	Lawson Cypress - *Chamaecyparis lawsoniana*	<4	1	Ave 180	See plan				2 north	Mature	S=Poor, P=Poor. Hedge material along properties southern boundary. 10 of the 12 items are dead with the remaining 2 items supporting little active growth.	Remove G2 and replace with an alternative boundary treatment.	0 to 10 yrs	U	9.5
H3	Lawson Cypress - Chamaecyparis lawsoniana	<15	1	Ave 250	See plan				ground level - west	Mature	P= Good, S= Fair. Hedge material along properties eastern boundary. Not sustainable at current proportions with increasing risk of stem breakage. Provides effective though oppressive screening feature that could give rise to a future conflict if retained at current height. Establishing off site woodland material beyond hedge will mitigate for eventual removal and replacement. If retained height reduction will enable more effective periodic cutting.	Retain and reduce height to maximum of 4m	10 to 20 yrs	C2	3
T4	Hawthorn - *Crataegus monogyna*	4	1	150	2	2	3	3	2 west	Early mature	P= Fair. S = Fair. Drawn, suppressed inconsequential boundary tree.	Retain, no work required.	10 to 20 yrs	C2	1.8
H5	Lawson Cypress - Chamaecyparis lawsoniana	<15	1	Ave 250	See plan				ground level - west	Mature	P= Good, S= Fair. Hedge material along properties eastern boundary - being a continuation of H3. Not sustainable at current proportions with increasing risk of stem breakage. Provides effective though oppressive screening feature that could give rise to a future conflict if retained at current height. Establishing off site woodland material beyond hedge will mitigate for eventual removal and replacement. If retained height reduction will enable more effective periodic cutting.	Retain and reduce height to maximum of 4m	10 to 20 yrs	C2	3

Dense Vegetation
Existing Building
Caravan
Grass
Shelter
Existing Dwelling
Grass
Grass
Littleworth Lane
Shed
Rough Ground
Rough Ground
Existing Dwelling
H5 C
T4 C
H3 C
T1 C
H2 U
AH1 63.656
AH2 63.675
AH3 62.682

KEY



Category A
Tree/group of high quality with an estimated remaining life expectancy of at least 40 years.

Category B
Tree/group of moderate quality with an estimated remaining life expectancy of at least 20 years.

Category C
Tree/group of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.

Category U
Trees in such condition that they can not realistically be retained as living trees in the context of the current land use for longer than 10 years.

Appendix 4

Drawing Title:
Tree Constraints Plan

Site Address:
Land at Littleworth Lane
Monk Bretton
Barnsley

Client:
Mr & Mrs Brown

Date:	Job Ref:
09/08/2024	TCC-2031-1

Scale:	Revision:
1:200 at A3	1

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Site Plan
1 : 200

VISUAL SCALE 1:200 @ A1

Appendix 5 - Tree Impact Plan

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PROJECT:
Erection of Dwelling

FOR:
Mr and Mrs Brown

SITE:
Plot 1,
Littleworth Lane,
Monk Bretton,
Barnsley,
South Yorkshire,
S71 SA

Planning Issue Drawings

THIS DRAWING IS COPYRIGHT
It is the responsibility of the customer and contractor appointed for the dinal design of electrical, bathroom, kitchen and utility ftments. Those indicated by Fleming Homes Ltd. are demonstrative for building control purpose only.
Do not scale drawing.
Dimensioned wallplate layout plan will be provided.
Dimensions given are structural unless noted otherwise.
It is the entire responsobility of the customer to have ground conditions checked prior to start of work and have foundations designed accordingly.

Rev	Description	Date
A	Drawings updated	13.08.24
B	Drawings updated.	15.08.24

SCALE	PAPER	DRAWN	CHECKED	DATE
1 : 200	A1	WJH	SRH	03.05.24

DRAWN REF: 9953. PL3

CONTRACT NUMBER: 2148