Land Adjacent to

Hayfield Road,

New Mills, High Peak, Derbyshire

BS5837:2012

Tree Survey and Implications Assessment

Prepared by EBS on behalf of The Casey Group Ltd

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Report on behalf of The Casey Group Ltd, by EBS

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1. Introduction

1.1 Purpose of Report

This report provides an impact analysis of the proposed development on trees with guidance on appropriate management and protective measures. Its primary purpose is for the planning authority to review the tree information in support of the planning submission and use as a basis for issuing planning consent or engaging in further discussion towards that end. This report is based on site observations and the information provided by the client.

1.2 Ecological Constraints

The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act 2000, provides statutory protection for the species that inhabit trees.

Tree Survey was conducted in line with regulations set out in BS5837:2012 – Trees in relation to design, demolition and construction.

1.3 Qualifications and Experience

This report is based on my site observations and the information provided, interpreted in the context of my experience. My Qualifications are a BSc (Hons) in Wildlife Conservation and I am a full member of CIEEM. I have over 8 years' experience in Arboriculture both in the private sector and local authority. During that time I have ran EBS working with environmental organisations in the UK and forestry projects in Costa Rica. Other work has included arboricultural assessments during golf course design phases, as well as assessments for private estates and individual landowners.

2. Site Evaluation

2.1 Site Visit

The site was visited on Thursday 14th November 2013. All observations were taken from ground level. The majority of the trees were adjacent but outside the boundary of the site and observations on these were confined to what was visible. The weather was mild (10°C), sunshine and some patches of cloud.

2.2 Site Description

The site is located off Hayfield Road, New Mills, High Peak, Derbyshire; centred on grid reference: SK 009 859. The site is approximately 0.12 hectares of brown field with areas of hard standing and self seeded birch saplings. The boundary of the site is lined with sporadic mature and semi-mature trees.

2.3 Collection of Data

An inspection of the individual trees around and abutting the site (where possible) and trees outside the site affected by the site, was carried out. All dominant boundary and adjacent trees were recorded as advocated by BS5837:2012, primarily as guidance for boundary protection. The remainder of the site i.e. the birch saplings, were not assessed for this report due to their small size.

2.4 Interpretation of Data

The Root Protection Area (RPA) for the individual trees was calculated using the process laid down in section 4.6 of BS5837:2012, the same principle has been used to provide a minimum RPA for the boundaries surrounding the site using the RPA's of the dominant boundary trees as guidance. Section 4.6 of BS5837:2012 is a simplistic methodology for establishing the minimum distance for protective barriers and consideration has been given to the influencing factors set out in section 4.6.3 of BS5837: 2012 in setting the RPA's on this site.

2.5 Root Protection Area

The Root Protection Area (RPA) is the area where ground disturbance must be carefully controlled. In principle, no significant disturbance should occur within the RPA of category A or B trees, and high levels of care are needed during any activities authorised within it if the trees are to be successfully retained. Generally consideration needs to be given to the space needed for the trees to be successfully retained after development had finished.

3. Survey Information

3.1 Trees

There are trees along the north and western edges of the site. They are mostly interspersed amongst hedgerows and likely to have been planted to delineate boundaries (see Figure 1 Existing Layout). Measurements have been taken for the trees and are included in the Tree Survey Schedule (Appendix Table 1).

The trees in the north eastern corner adjacent to the site are positioned on a steep slope outside of the site boundary and consist of a mature, low quality multi-girth Ash (*Fraxinus excelsior*) and two mature, low quality multi-girth Sycamores (*Acer pseudoplatanus*). A large mature, good quality Oak (*Quercus robur*) is positioned approximately 6m off the western sidet of the site. The only other tree affected by the proposed development of the site is a self-seeded young sycamore growing out of rubble.

3.2 Individual Trees

All trees have been assessed individually and not as groups (see Table 1 in Appendix for details).

3.3 Scrub

Scrub habitat is limited to the self-seeded Silver Birch (*Betula pendula*) saplings across the site with some patchy overgrown ruderal vegetation such as bramble and nettles.

3.4 Hedgerows

No hedgerows are within the site or on its boundary.

4. Arboricultural Implications Assessment

4.1 Summary of the Impact on Trees

The impact of any proposals on the individual trees has been assessed by the extent of disturbance in the RPA's.

4.1.1 Ground Level Changes/Re-profiling

It is thought unlikely that any changes to landscaping will have an adverse impact on the bordering trees.

4.1.2 Removal

4.1.2.1 The outline proposal does not indicate removal of any trees except for the young self-seeded Sycamore within the site. However, if this was to be proposed, compensatory planting must be incorporated into the design of the plans.

Full details are shown in the Tree Survey Plan (Appendix Table 1).

4.1.3 Compensation

4.1.3.1 If the removal of trees is necessary, the design must incorporate the planting of a suitable amount of trees to compensate the number lost. The trees should be native and of local provenance.

4.1.3.2 The removal of part of H3 for access reasons can easily be compensated for by the filling in and maintenance of the remaining hedgerows on site.

4.2 Proposals to Mitigate Impact

4.2.1 Protection of Retained Trees and Woodland

The successful retention of trees depends on the quality of the protection and the administrative procedures to ensure that the protective measures remain in place whilst there is an unacceptable risk of damage. An effective means of doing this is through the use of an Arboricultural Method Statement that can be specifically referred to in a planning condition. An Outline Arboricultural Method Statement for this site is set out in Section 5.

4.2.2 Summary of Impact on Local Community

Subject to adequate precautions to protect retained individual trees as specified in the Outline Arboricultural Method Statement included in this report, the development proposals should only have a minor arboricultural impact.

5. Outline Arboricultural Method Statement

5.1 Introduction

The Arboricultural Impact assessment in section 4 identified the impact on trees on-site and how that might affect the local character. The Arboricultural Method Statement sets out the management and protection details that must be implemented to secure successful tree retention. It is based on the assumption that the minimum general standards for development issues are those set out in BS5837:2012. It also draws on the author's expertise and knowledge in interpreting these standards in relation to the specific circumstances of this site.

Plans provided are for information and guidance and should only be used for dealing with tree and woodland issues. The location of all protection measures must be clarified prior to construction and clearly marked as such on the ground.

5.2 Protection Barriers

Protective barriers should be fit for purpose, BS5837:2012 section 6.2.2 sets out the default position, however it also states in 6.2.2.3 that 'where the site circumstances and associated risk do not necessitate the default position, an alternative specification should be prepared and agreed by the local planning authority'.

Fencing the whole site will be very expensive and unreasonable, however there has to be a clear demarcation of the line beyond which disturbance of the RPA's will occur. The erection of suitable protective fencing should be carried out where the site abuts the individual trees and where the proposal or the working of it comes within any RPA. The precise location of the protective fencing must be agreed with the local authority on site before any development work commences. Proposed location of protective fencing is shown in Appendix 6.2: Drawing Tree Survey Hayfield Road, New Mills (overlaid onto Survey Systems drawing: SSL 6885 Oct 2004)

5.3 Precautions when working within the RPAs

If suitable protection fencing is carried out, working within the RPA's should not be an issue, however if works are undertaken within the RPA they must be carried out with care and the following general guidance followed (not all may be relevant).

5.3.1 General Excavation

All excavation must be carried out by hand causing the minimum disruption of roots. Exposed roots to be removed should be cut 10-20cm behind the final face of excavation. Retained roots must be protected from direct sunlight, drying out and extreme temperatures by an appropriate covering. Roots greater than 25mm should be retained where possible, roots 25 - 100mm should only be cut in exceptional

circumstances. Roots over 100mm should only be cut following guidance from the arboricultural consultant.

5.3.2 Removal of Structures

Structure are any man made structure above or below ground and includes roads, tracks and paths. Roots frequently grow adjacent and below buildings and damage can occur through disturbance. Use of hand tools may be required. Debris should be removed across existing hard standing away from the RPA and if appropriate existing below ground features can be left in place as removal will cause excessive root disturbance.

5.3.3 Installation of New Structures

New structures within RPA's are potentially damaging, these should be designed to have the minimum impact on the RPA, this may include above ground construction using piling. New surfaces such as roads, paths and car parks should be constructed to allow water and gas movement, give load spreading to avoid compaction and be constructed with little or no excavation. Provision of new services should only pass through RPA's as a final resort, if this is the case trenchless installation is the preferred method. These are engineering issue that should be guided by tree expertise.

5.3.4 Soft Landscaping

The layout of the site ensures that re-profiling will be kept outside the RPA's with ground levels maintained at original levels, where there is possibility of re-profiling extending over the RPA; this is likely to be on a very small scale and not exceed any more than 15% of the RPA. Where new planting exists within the RPA's this should be carried out with care and ideally mulch rather than grass should be placed around the base of retained trees to reduce the risk of mowing damage, because of the layout of the site this will be limited but needs to be considered.

5.4 Site Storage, Cement mixing and Washing points

All site storage areas, cement mixing and washing points for equipment and vehicles must be outside the RPA's. Where there is a risk of polluted water run off precautions must be in place to contain any spillages.

5.5 Tree and Shrub Planting (if relevant)

Any proposed Tree and shrub planting on completion should be carried out using the appropriate planting techniques for the size of plant being planted. Appropriate protection measures should be put in place to protect the plants during establishment; consideration should be given to potential threats from domestic stock, wild mammals and mechanical damage. Maintenance of all stock should be carried to ensure successful establishment, this will require replacement of losses

and should continue for up to 5 years or until successful establishment is confirmed by the local authority.

5.6 Tree Protection Supervision

Tree protection cannot be reliably implemented without arboricultural input. This input varies depending on the site and resources available. An arboricultural consultant should be instructed to oversee any protective measures and management proposals outlined in this Method Statement.

It is recommended that arboricultural input is taken during the preparation period before work starts to ensure that any detail changes in the application are considered in relation to trees and woodland. A pre commencement meeting should take place with both the arboricultural consultant and local council representative in attendance prior to commencement of works to ensure all protection measures are in place. The arboricultural consultant should visit the site during development at an interval agreed at the pre commencement meeting; this should be flexible so as to allow supervision of sensitive works.

5.7 Site Management

It is the developer's responsibility to ensure that the details of any agreed Method Statement and any subsequent amendments are fully understood by all site personal. A copy of the report should be available on site at all times.

6. Appendix

Appendix 6.1 Table 1: BS5837 Data

TREESURVEYSCHEDULE

Client:	Caseys	**Site:**	Hayfield Road, New Mills		
Date of Survey:	14/11/13	**Surveyor:**	B.Gaudie, J.Ashworth	**Tagged:**	No

Tree ID	Common Name	Latin Name	Maturity	Stem Dia. (mm)	Spread				Crown	Category	Life Expectancy (years)	Structural Condition	Phys. Condition	Comment
					N	E	S	W						
1	Sycamore	*Acer pseudoplatanus*	Mature	600 Multi-girth x 2	4	5	3	6	4	C	+20	Leaning due to position of steep slope.	Fine	Off site, protect using fencing to BS 5837 standards using Root Protection Area measurements below
2	Sycamore	*Acer pseudoplatanus*	Mature	900 Multi-girth x 4	2	2	8	6	2.5	C	+20	Leaning due to position of steep slope.	Fine	Off site, protect using fencing to BS 5837 standards using Root Protection Area measurements below
3	Ash	(*Fraxinus excelsior*)	Mature	450 Multi-girth x 2	1	4	6	5	2	C	+20	Leaning due to position of steep slope.	Fine	Off site, protect using fencing to BS 5837 standards using Root Protection Area measurements below
4	Oak	*Quercus robur*	Mature	700	8	8	7	6	4	B	+20	Fair	Fair	Off site, protect using fencing to BS 5837 standards using Root Protection Area measurements below
5	Sycamore	*Acer pseudoplatanus*	Young	250	2.5	2	2	2.5	2	R	+20	Fair	Fair	Positioned in rubble - Remove

Appendix 6.2. Table 2 RPA Data

Tree No	DBH	RPA Radii	RPA Area	RPA Square
	Metre	Metre	M^2	Metre x Metre
1*	0.60	6.00	113.0	10.6
2*	0.90	9.00	254.3	15.9
3*	0.45	4.50	64.6	8.0
4	0.70	8.40	221.6	14.9
5	0.25	3.00	28.3	5.3

*Denotes Multi-Stemmed Tree

Appendix 6.3

SEP Drawing: Tree Survey Hayfield Road, New Mills (overlaid onto Survey Systems drawing: SSL 6885 Oct 2004)