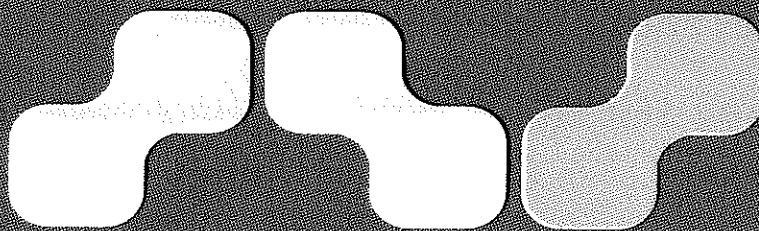


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SEP (SITE ENGINEERING PERSONNEL) LTD



SURVEY & ENGINEERING PROJECTS

TEL: 01695 729835

FAX: 01695 725566

email: info@sepltd.com

www.sepltd.com

**Proposed Development of
Land adjacent to Petre Wood Close**

Tree Survey and Implications Assessment - Draft

**Prepared by SEP Ltd on behalf of Hargreaves Contracting
Limited**

Sept 2012

Report on behalf of Hargreaves Contracting Ltd, by SEP Ltd

Main Contributors: Jason Ashworth BSc

Issued and Reviewed by

Bill Gaudie BSc MIEEM

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Document Revisions:

1.0 Draft Tree Survey and Report 10/2012

**EBS
4 Upavon Avenue
Greasby
Wirral
CH49 3PL**

**Tel: +44 (0) 7725 488648
Web: www.ebsols.co.uk
Email: admin@ebsols.co.uk**

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6. APPENDICES

1. Introduction

1.1 Purpose of Report

This report provide an impact analysis of the proposed development on trees and woodland 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 my site observations and the information provided

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. These matters have been discussed in a previously issued report on the ecological status of the site.

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 (incorporating Forestry and Arboriculture) and I am a full member of IEEM. 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.

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2. Site Evaluation

2.1 Site Visit

The site was visited on Monday 3rd of September 2012. All observations were taken from ground level. The majority of the trees and woodland were inside the boundary of the site and observations on these were confined to what was visible. The weather was warm with sunny spells.

2.2 Site Description

The site is approximately 0.5 hectares of open land situated between the recent development at Petre Wood Crescent to the south and the A59 to the north. The western side of the site abuts the steep banking beneath the A59 close to the roundabout, whilst the eastern part of the site is open grazing land. The banking rises sharply to the roundabout and is planted mainly with a line of mature trees acting as a screen. The site itself rises from west to east so that on its western side, the land is beneath the level of the A59 but at its northerly edge it is level with that highway at the point where it is crossed by the public footpath. A culvert bisects the site and follows the line of the fence separating upper and lower sections.

2.3 Collection of Data

An inspection of the individual trees around and abutting the site (where possible) and the woodland 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 hedgerows and adjacent woodland blocks were assessed generically in terms of dominant species content, mean height, mean girth, crown spread, maturity, past management and remaining contribution.

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, this is not an issue on this site as it relates primarily to build development.

3. Survey Information

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3.1 Woodland

The woodland immediately outside the western and north-western boundary provides an important backdrop to the site (marked as Group A on Tree Survey Schedule). It appears to be under management and is multi-purpose; firstly acting as a screen providing noise reduction from the A59 and to improve the aesthetics of the site. The woodland is not in the ownership of the site owner, so there is no control of management. This area is unaffected by development plans.

Further groups of woodland exist within the site and appear to have been managed until recently. These mainly consist of two groups of good quality semi-mature and mature, Alder and Conifer trees. The trees are adjacent to the hard standing area close to the entrance to the site, anecdotal evidence indicates this has previously been used as a storage area for a horticultural product business.

Generic measurements have been taken for the groups and are included in the Tree Survey Schedule (Appendix 2).

3.2 Individual Trees

The individual trees surveyed are detailed in the Tree Survey Schedule (Appendix 2) and shown on the Tree Survey Plan (Appendix 3). Trees numbered 1 to 3 are poor quality Common Ash and are recommended for removal. Tree 4 is mature Sycamore of good quality and is located on the boundary between upper and lower sections of the site. Tree 5 is located on an adjacent property and is not in the ownership of the site owner, there is no control of management. Tree 6 (Fig 1), a mature Oak has a Tree Protection Order; however due to lack of management and possible acts of vandalism, it is now in very poor condition and is scheduled for removal (see schedule in appendix for reference number).

3.3 Scrub

Scrub habitat is limited within the site and is limited to patchy overgrown ruderal vegetation with bramble and nettles. There are also some areas of self-seeded saplings interspersed through these areas, occasionally dense. Under current plans these will mainly be cleared.

3.4 Hedgerows

A hedgerow of coppiced conifers is situated along the south-east corner of the site and is thought to belong to the occupier of the property.

Fig 1. Tree No 6, mature Oak in poor condition.



4. Arboricultural Implications Assessment

4.1 Summary of the Impact on Woodland and Trees

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

4.1.1 Ground Level Changes/Re-profiling

The proposal to re-profile the site has the potential to increase run off from the site into the western end of the site although the existing site profile already sheds water in this direction, the existing drainage culvert may be need to be relocated to the far end of the site. It is recommended that a full hydrological survey be carried out as a matter of course.

4.1.2 Removal

The current proposal includes removal of Groups B and C, as well as individual trees 1, 2, 3 and 6. The trees have been recommended for removal owing to development reasons, full details are shown in the Tree Survey Plan (Appendix 2).

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4.1.3 Compensation

Under current development plans a number of trees are earmarked for removal. However, it is encouraged that developers compensate this loss by incorporating blocks of trees of local provenance throughout the development were possible. It is also envisaged that the client will adequately compensate for the loss of tree 6 by planting a number of mature trees of the same species on or around the 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 woodland and individual trees as specified in the Outline Arboricultural Method Statement included in this report, the development proposals should have minor significant arboricultural impact. However, one area of concern is a scheduled turning head which is to be located within the RPA of Tree 6. This tree is a category C tree and is protected by a TPO; designs should be incorporate to offer significant compensation.

5. Outline Arboricultural Method Statement

5.1 Introduction

The Arboricultural Impact assessment in section 4 identified the impact on trees and woodlands 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 and woodland 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.

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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 ancient woodland and where the proposal or the working of it comes within 10 m of any RPA. This will provide sufficient protection of the RPA's of the various woodland blocks as well as all individual tree RPA's as these fall within these proposed buffer zones. The precise location of the protective fencing must be agreed with the local authority on site before any development work commences.

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. If appropriate existing below ground features can be left in place if 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.



TREESURVEYSCHEDULE

Client:	Hargreaves Contracting Ltd.	Site:	Petre Wood Close, Langho
Date of Survey:	03/09/12	Surveyor:	B.Gaudie, J.Ashworth
		Tagged:	No

Tree ID	Common Name	Latin Name	Maturity	Number of Stems	Height (m)	Crown Height (m)	Stem Dia (mm)	Spread				Crown	Stem	Basal Area	RPA (m²)	Cat	Life Exp	Phys Condition	Comment
								N	E	S	W								
1	Common Alder	Alnus glutinosa	Young	1	6	1	160	2	3	3	2	Fair	Fair	Fair	11.58	U	0	Fair	Scheduled for removal
2	Common Ash	Fraxinus excelsior	Young	1	6	0	85	2	2	2	2	Fair	Fair	Fair	3.27	U	0	Fair	Scheduled for removal
3	Common Ash	Fraxinus excelsior	Young	1	6	0	110	2	2	2	2	Fair	Fair	Fair	5.47	U	0	Fair	Scheduled for removal
4	Sycamore	Acer pseudoplatanus	Mature	1	22	2	650	5	8	7	7	Good	Fair	Fair	191.13	B	20-40yrs	Good	
5	Crack Willow	Salix fragilis	Mature	1															No access as in adjoining property
6	English Oak	Quercus robur	Mature	1	25	3	900	7	8	7	8	Fair	Fair	Poor	366.44	C	-20 yrs	Poor	Bark damage and severe rot in base. Low vitality. Potential to cause damage to adjacent fence TPO: 7/19/3/175 2008
Grp.A	Ash, Willow & Alder	See Above	Mature	1								Good	Good	Good		C	20-40yrs	Fair	
Grp.B	Douglas Fir	Pseudotsuga menziesii	Young	1								Good	Good	Good		U	0	Fair	Scheduled for removal
Grp.C	Common Alder	Alnus glutinosa	Young	1								Good	Good	Good		U	0	Fair	Scheduled for removal

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SURVEY & ENGINEERING PROJECTS

Head Office

33 Sandy Lane, Skelmersdale,
Lancashire, WN8 8LA

TEL: 01695 729835

FAX: 01695 725566

email: info@sepltd.com

www.sepltd.com



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