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earthworks environmental design

9 Poorsland Barn, Slaidburn, Clitheroe. Lancashire. BB7 3AE

01200 446859 M: 07709 225783 earthworksuk@yahoo.co.uk

Mr Majid Hussain

62 Carnarvon Road
Blackburn
BB2 6NL

10 December 2012

Job ref: B 1242

Dear Mr Hussain

Re: Daylight scoping survey (bats): High Trees, Longsight Road, Clayton-le-Dale, Blackburn, BB2 7JA

Introduction

You have requested a protected species survey as a condition of a planning application to Ribble Valley Borough Council (RVBC) for a proposed development at the above property requiring demolition of the existing bungalow and out-buildings as shown in figures 1 to 9 of this report.

The Local Planning Authority must take account of the impact of a development on protected species in accordance with PPS9. RVBC requires an appraisal of the likely impact of the proposed development on all bat species that are present or likely to be present at the property, in addition to any mitigation, compensation or enhancement proposals that may be required.

A daylight scoping survey was undertaken on Friday 7 December 2012 between 10.00 and 11.00.

Survey methodology

The survey includes both internal and external inspections of the building.

The survey methodology follows the recommended guidelines published by the Bat Conservation Trust - *Bat Surveys: Good Practice Guidelines, 2nd Edition, Hundt, L (2012)*, Natural England (*Survey Objectives, Methods and Standards as outlined in the Bat Mitigation Guidelines, 2004*) and Chapter 3 - Survey and Monitoring Methods, (*Bat Worker's Manual, JNCC, Mitchell-Jones AJ and McLeish, AP, 3rd Edition 2004*).

The aim of the scoping exercise is to consider the potential value of the site for European Protected Species (EPS) and to establish whether bats and other protected species have been active within any part of the property that will be affected by the proposed development.

Non-invasive survey methods were used to assess the use of the property by protected species (bats).

The search was made using a high-powered lamp (Clu-lite CB2 - 1,000,000 candle power), close-focussing binoculars (Leica Trinovid), a digital camera (Kodak MD41) and 900mm endoscope (ProVision 300) to view all likely areas of the building for the presence of bats, ie. droppings and urine spots, bat corpses, roost staining or evidence of feeding remains such as discarded moth and butterfly wings and other insects fragments typically found in a perching and feeding area.

Survey constraints

The survey methodology is designed to determine the likely presence of bats within the property and does not necessarily prove absence.

Crevice-roosting species are occasionally overlooked, particularly in situations where solitary bats are able to conceal themselves within cavity walls or beneath wall claddings and roofing materials.

Bats are highly mobile mammals; pipistrellus, plecotus and myotis species frequently change roost sites, particularly during spring, summer and autumn.

Evening emergence and dawn swarming surveys have not been carried out at this property.

Evidence of bat activity such as bat droppings or staining on external walls and surfaces is frequently removed by the action of wind and rain; absence of evidence is therefore evaluated with caution.

Personnel

The survey was carried out by David Fisher (EED) - an experienced ecological consultant with more than 25 years experience of bat ecology and field survey work and a Natural England licence holder since 1989.

Natural England licence No: 20122876 (August 2012), Conservation, Science and Education.

Desktop study (10km square: SD 63)

A local data search was carried to identify any relevant records of bat activity within 1km of the site. The following bat species are known to be present within the wider district:

Myotis sp.

Natterer's bat	(<i>Myotis nattereri</i>)
Whiskered bat / Brandt's bat	(<i>M. mystacinus</i> / <i>M. brandtii</i>)*
Daubenton's bat	(<i>M. daubentonii</i>)* ¹

Plecotus sp.

Brown long-eared bat	(<i>Plecotus auritus</i>)* ¹
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Pipistrellus sp.

Common pipistrelle	(<i>Pipistrellus pipistrellus</i>)* ¹
Soprano pipistrelle	(<i>P. pygmaeus</i>)* ¹

Nyctalus sp.

Noctule bat	(<i>Nyctalus noctula</i>) ¹
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*NBN data ¹EED data

National Biodiversity Network (NBN) and NLBG database records, whilst indicative of the bat species likely to occur within a 10km square, do not confirm presence or absence of a species or habitat.

Absence of records does not imply that a particular bat species is not present within the recording area.

Pre-existing information

No records are available at this property (SD 660 328) or in neighbouring buildings within 200m of the site.

Description of the property

The property is a detached bungalow (built between 1940 and 1960) with rendered brick cavity wall construction with hipped rafter-with-purlin roof and enclosed roof void. The property also has an integral garage (figure 1); there are also two out-buildings (figures 4 and 6).

The tiled roof is lined with bitumen felt and the roof void insulated with a glass fibre material laid across the ceiling joists (figures 1 to 3). There is no natural light within the roof space and the area is generally cool, dry and well-ventilated. Although there is evidence of mouse activity within the roof void, there are no signs of access by bats.

Externally, the building has brick plinth lower walls with rendered upper walls. All windows and doors are steel-framed and single-glazed. Some fascia boards have been replaced with PVC on the garage and apex roof (Figure 3); roof areas are well-sealed and ridge tiles, verges and lead work valleys are secure.

Images: High Trees: 7 December 2012



Figure 1: Front



Figure 2: Rear



Figure 3: Side



Figure 4: Roof void



Figure 5:



Figure 6:



Figure 4:



Figure 5:



Figure 6:

The two out-buildings:

(1) Poultry shed / piggery (figure 4) comprising 4 separate bays with storage and workshops. The single storey building has a concrete plinth wall; tongue and groove planking on upper walls and glazed windows; the mono-pitch roofs are under-drawn with T&G boarding and clad with corrugated metal sheets; daylight roof panels provide natural light inside the building (figure 5). The sheds are dilapidated and mostly open; internally the bays are cool, damp and draughty; although there is no evidence of roosting / feeding bats there are signs of nesting wild birds although there is no evidence of roosting or nesting barn owls at the site.

(2) Storage (grain) barn (figure 6) comprising single storey shed in a dilapidated condition and heavily overgrown with brambles. The building has a timber construction with duo-pitched corrugated cement fibre roof. The structure has been used for storage and is now on verge of collapse with no safe access. The structure is cold, damp and draughty and is highly unsuitable for supporting roosting bats; although nesting birds may be present at times.

Location of the property (national grid reference: (SD 660 328): elevation: approximately 95 metres).

The property is located on Longsight Road, although the house is set well back from the main highway and surrounded by a large garden. The site is adjacent to open countryside at the rear with extensive open pasture and permanent grassland to the north. The neighbouring properties are within 100m on either side.

There is no significant woodland or plantation adjacent to the site; the nearest extensive woodland and wooded water course is at Mire Wood, more than 300m north of the property and there are extensive broadleaved woodlands close to the River Ribble located 2km to the north of the site.

The garden contains a number of mature conifers and there are broadleaved hedgerows adjacent to the site.

Proposed works

It is understood the proposed development requires complete demolition of all existing buildings.

Survey results

The weather at the time of the inspection was cold, dry and bright with light ground frost (temperature: 2°C; cloud cover: nil; wind: calm; precipitation: nil) providing optimal conditions for a scoping survey.

There is no evidence of bat activity at this property.

All external parts of the roof void were carefully inspected for evidence of bat droppings and other indicative signs of access by bats, none was found.

There is no evidence of bat activity within any part of the bungalow and it is highly unlikely that bats have roosted within any part of the house or garage.

There is no evidence of bat activity within either of the out-buildings.

House martins have previously nested below the gable roof apex (figure 3); birds are likely to be present during the spring and summer period (1 May to 31 July).

Although blackbirds and other species have nested in the sheds, there is no evidence of barn owls activity.

Barn swallows may have been present within the outbuildings.

Evaluation of results

There is currently no evidence of bat activity within any part of the property.

It is unlikely that breeding or hibernating bats have been present within any of the out-buildings; the risk of disturbance to roosting bats is likely to be negligible.

The overall scale of impact of the development on local bat populations is likely to be minimal.¹

There are no existing records of bat activity at this property or within neighbouring properties.

Further survey work (emergence and activity surveys) is not recommended.²

Nesting wild birds are likely to be present during the main breeding season (1 May to 31 July).

Demolition works should avoid the main nesting period.

¹ The scale of main impacts at site level on bat populations – Table 6.1. p37 - Guidelines for proportionate Mitigation, (Bat Mitigation Guidelines, 2004).

² Flow chart depicting the process for deciding what level of survey is necessary. (BCT, Bat Surveys, 2007, p24)

Conclusion:

- There is currently no evidence of bat activity at the property.
- There are no records of roosting bats at the site or within neighbouring buildings.
- There is minimal risk of disturbing roosting bats during the proposed building demolition.

Recommendations

Due to the presence of nesting wild birds at this property, the proposed demolition should avoid the critical breeding period 1 May to 31 July when nesting birds and their young are most likely to be present.

It is recommended the proposed works proceed with reasonable caution and vigilance for the 'unexpected' presence of solitary roosting bats.

Further surveys (ie. evening emergence or dawn re-entry and swarming surveys) are not required.

An EPS development licence is not required.

SUMMARY

There is **no evidence** of roosting bats at this property.

Nesting birds are likely to be present during the summer months; you should avoid disturbance to nesting birds during this period. All birds, their nests and eggs are protected by law; it is an offence to intentionally damage or destroy the nest of any wild bird while it is in use or being built. (see Mitigation guidance notes).

An EPS development licence is **not required**.

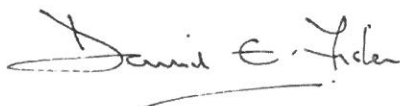
The proposed building alterations are **unlikely to cause disturbance to bats** or result in the loss of a bat roost or cause injury or death of a European Protected Species – (Bats) or result in any significant impact on a local bat population.

The scale of impact of the development at site level on local bat populations is likely to be negligible.

Mitigation guidance notes are attached (Appendix A); in the unlikely situation that any bats are disturbed, contact the surveyor immediately (David Fisher - EED) or call the Bat Conservation Trust for further advice.

Please note: I do not provide a copy of this report to the local planning authority, therefore it is your responsibility to forward the report to Ribble Valley Borough Council with the planning application.

Yours sincerely



David Fisher

APPENDIX A

Mitigation considerations (general guidance notes)

Mitigation refers to the practices adopted to reduce or remove the risk of disturbance, injury or death of a protected species or damage to a roost. The Bat Mitigation Guidelines (Natural England, 2004) define mitigation as “...measures to protect the bat population from damaging activities and reduce or remove the impact of development”.

ACTION	METHOD / NOTES
1. Further survey effort	No required
2. Timing constraints	Not required
3. EPS Licence requirement	Not required
4. Method statement	Not required
5. Removal of roof tiles	Although it is unlikely that roosting bats will be exposed during the proposed works, all site contractors and project managers should be aware that solitary roosting bats are occasionally found roosting beneath roof tiles, roof verges, ridge tiles, lead work flashing, fascia boards and soffits.
6. Accidental exposure of bats	In the event of bats being exposed or vulnerable to harm, all work in that area must stop immediately. Cover the exposed bats to reduce further risk of harm and seek further advice.
7. Nesting wild birds	House martins have nested on the bungalow in previous years; care should be taken to avoid destruction of nests during the period 1 May to 31 July. Similarly, nesting blackbirds and other species may be present within the out-buildings during the spring and summer months. All birds, their nests and eggs are protected by law and it is an offence (with certain exceptions) to intentionally kill, injure or take any wild bird or to intentionally take, damage or destroy the nest of any wild bird while it is in use or being built. If you wish to exclude nesting birds from these buildings, it is recommended that all access points are netted or sealed off during February / March before the nesting season begins.
8. Legal protection	Site contractors and project managers should be fully aware of the legal protection afforded all species of bat in the UK and procedures should be in place to mitigate for the potential impact on bats - see notes on 'Bats and the Law' in this report.
9. General advice on bats	If you require further advice on bats during the proposed building operations or if you find an injured or resting bat, call BCT immediately; they will normally contact a qualified bat worker in the local area who will visit the site and provide further advice free of charge. Bat Conservation Trust (BCT) helpline number: 0845 1300 228
10. Emergency advice:	Call David Fisher (EED) on 01200 446859 (office) or 07709 225783 (mobile)

APPENDIX B

Wildlife legislation – Bats and the law

All bat species in the UK receive full protection under the Wildlife and Countryside Act 1981 (amended by the Environment Protection Act 1990). The Countryside and Rights of Way Act 2000 amends the Wildlife and Countryside Act to also make it an offence to intentionally or recklessly damage, destroy or obstruct a place that bats use for shelter or protection. All species of bats are listed on Schedule 5 of the 1981 Act, which makes it an offence to:

- *intentionally kill, injure or take any wild bat.*
- *intentionally or recklessly damage, destroy or obstruct access to any place that a wild bat uses for shelter or protection. This is taken to mean all bat roosts whether bats are present or not.*
- *intentionally or recklessly disturb any wild bat while it is occupying a structure or place which it uses for shelter or protection.*

The protected status afforded to bats means planning authorities may require extra information (in the form of surveys, impact assessments and mitigation proposals) before determining planning applications for sites used by bats. Planning authorities may refuse planning permission solely on grounds of the predicted impact on protected species such as bats. Recent case law has underlined the importance of obtaining survey information prior to the determination of planning consent¹.

*"It is essential that the presence or otherwise of protected species, and the extent that they may be affected by a development proposal, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision."*²

All British bat species are included in Schedule 2 of the Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007, (also known as Habitats Regulations) which defines 'European Protected Species' (EPS).

¹ Bat Mitigation Guidelines, AJ Mitchell Jones, Joint Nature Conservation Committee, (2004) ISBN 1 86107 558 8

² Planning Policy Statement (PPS9) (2005), Biodiversity and Geological Conservation. ODPM.

Protected species (Bats) and the planning process¹

For development proposals requiring planning permission, the presence of bats, and therefore the need for a bat survey, is an important 'material planning consideration'. Adequate surveys are therefore required to establish the presence or absence of bats, to enable a prediction of the likely impact of the proposed development on them and their breeding sites or resting places and, if necessary, to design mitigation and compensation. Similarly, adequate survey information must accompany an application for a Habitats Regulations licence (also known as a Mitigation Licence) required to ensure that a proposed development is able to proceed lawfully.

The term 'development' [used in these guidelines] includes all activities requiring consent under relevant planning legislation and / or demolition operations requiring building control approval under the Building Act 1984.

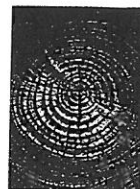
Natural England (Formerly English Nature) states that development in relation to bats "*covers a wide range of operations that have the potential to impact negatively on bats and bat populations. Typical examples would be the construction, modification, restoration or conversion of buildings and structures, as well as infrastructure, landfill or mineral extraction projects and demolition operations*". *

*(Tony Mitchell-Jones, 2004)

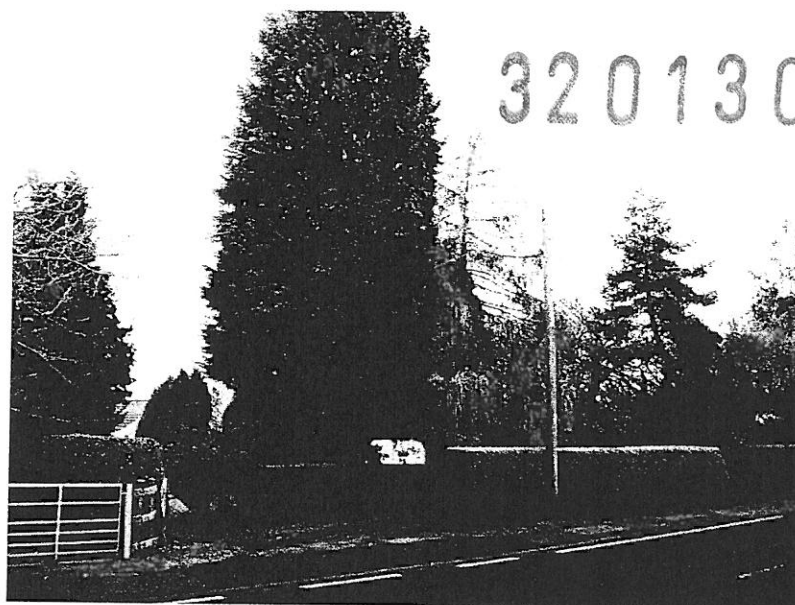
¹ 2.2.3 - Planning for development, p10, Bat Surveys, Good Practice Guidelines, BCT (2007).



GM TREE CONSULTANTS



STAGE 1
ARBORICULTURAL REPORT WITH
TREE CONSTRAINTS PLAN
&
ARBORICULTURAL IMPACT ASSESSMENT
TO AID IN THE
SITE DESIGN / LAYOUT



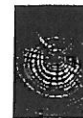
CONSULTING ARBORIST: **GARY MARSDEN**
FDS Arb M.Arbor.A

ARBORICULTURAL REPORT PREPARED FOR: Mr Hussain

SITE ADDRESS:
High Trees
Longsight Road
Clayton-Le-Dale
Blackburn



STAGE 1 + AIA BS 5837 Report – Dated 13th December 2012 – Job Ref. 0363
Consultant: Gary Marsden. FDS Arb. M.Arbor.A.
Mobile: 077 61 66 73 84
Web: www.gmtreeconsultants.co.uk
E-mail: gary@gmtreeconsultants.co.uk



Summary

I have inspected all the relevant trees that could influence the development of this site and listed there details within this report, a minimum root protection zone is indicated around each tree, as no construction would be allowed within the area of any retained tree unless there are specifically approved construction methods to overcome such issues.

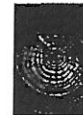
This information can now be used to assist the architect in producing there design while still protecting any retained trees in compliance with *BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations*.

This proposal will result in the loss of 10 low category trees and one marginal high category tree. All the significant boundary tree cover located on site will remain intact.

There is plenty of space for new planting and a comprehensive new landscape scheme with heavy standard sized tree planting can be developed if requested by the planing authority as part of a planing condition.

The construction activity and proposed changes may adversely affect further trees if appropriate protective measures are not taken. However, if adequate precautions to protect the retained trees are specified and implemented through an arboricultural method statement, the development proposal will have no adverse impact on the contribution of trees to local amenity or character. Indeed, any new sustainable planting proposals will increase the potential of the site to contribute to local amenity well beyond the short term.

Gary Marsden FDS Arb M.Arbor.A



1.0 Introduction

1.1 Instruction:

I am instructed by Mr Hussain (referred to as the 'client' from here on) to inspect any significant trees that could have an effect on the development at High Trees, Longsight Lane, Blackburn and to provide the following information to aid in the design of the site:

- A schedule of the relevant trees to include basic data and a condition assessment as per section 4.4.2.5 of BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations.
- A tree constraints map showing: root protection areas, above ground constraints, crown spreads, retention categories, tree height plus ultimate tree height.

From this data I have also produced an Arboricultural Impact Assessment (AIA) based on the initial tree survey, any information provided by the client.

1.2 Purpose of this report:

This reports primary purpose is to allow the architect to design relevant buildings / site layout while taking into account any impact this will have on the retained trees on site.

Within this planning process, this report will be available for inspection by people other than tree experts so the information is presented to be helpful to those without a detailed knowledge of the subject.

1.3 Qualifications and experience:

I have based this report on my site observations and any provided information and I have come to conclusions in the light of my experience. I have experience and qualifications in arboriculture, and include a summary in Appendix 'A'.

1.4 Documents and information provided:

My client or architect provided me with copies of the following documents or information:

- Their e-mail of instruction outlining the situation;
- Their email commissioning this report and agreeing to the T&C and cost.
- No proposed designs have been received at the time of writing the report

1.5 Relevant background information:

Prior to the site survey, my client advised me that:

- It is proposed to develop the land to the side of the property that falls within the inner fenced area and build a separate property but retaining the same access road.
- There are no proposals at present to develop within the plot of land that surrounds the property to the north.
- The council have requested a tree survey to validate any application.

1.6 Scope of this report:

This report is only concerned with the prominent trees within or around the proximity of the site that could influence the development of this site. It takes no account of any trees outside this remit or any building structural issues. It includes a preliminary assessment based on the site visit and any documents provided, listed in 1.4 above.



The survey is based upon information that was available at the time of the inspection. Further inspections are necessary over time to give a fuller picture of the health of trees.

1.7 Mapping:

Site plans showing all tree locations and any relevant details can be found in Appendix 'D'

1.8 Justification of work:

Where management action / tree surgery are recommended, this is based on maximizing the tree's safe useful life expectancy (SULE), given its current situation or the safety of persons and surrounding targets.

2.0 Limitations

- 2.1 The inspection was carried out from ground level only and relates only to arboricultural aspects. All visual observations and recommendations, relate, to the condition of the trees on the day of the survey. The trees have been assessed with the aid of a Nylon mallet for the purpose of detecting changes in resonance which may indicate that further investigation is required. Any unusual weather conditions, changes in soil, soil levels and changes to surroundings may result in a dramatic change in the trees health.
- 2.2 Due to the changing nature of trees and other site circumstances, this report and any recommendations made are limited to a 12-month period. Any alteration to the site and any development proposals could change the current circumstances and may invalidate this report and any recommendations made.
- 2.3 Trees are dynamic structures that can never be guaranteed 100% safe: even in good condition they can suffer damage under average conditions. Regular inspections can help to identify potential problems before they become acute.
- 2.4 A lack of recommended work does not imply that a tree is safe and likewise it should not be implied that a tree would be made safe following the completion of any recommended work.
- 2.5 This report does not consider the structural condition of existing buildings, nor the impact of existing trees on their foundations. If there are concerns over such matters the advice of a structural engineer should be sought.

3.0 Site visit and observations.

3.1 Site visit:

- I carried out an unaccompanied site visit on 12th December 2012.
- All my observations were from ground level without detailed investigations and I measured all dimensions unless otherwise indicated.
- I did not have access to trees outside the client's boundaries and have confined any observations to what was visible from within the client's property, any dimensions have been estimated.
- The weather at the time of inspection was clear, still and dry, with good visibility.

3.2 Brief site description:

- Lonsight Road is located in Clayton-Le-Dale.



- High Trees is on the north-western side of the road and surrounded by similar residential properties and open greenspace.
- The property consists of a large house that is currently unoccupied and centrally set in a large garden.
- The surrounding topography is relatively flat and the site is not particularly exposed
- Utility services were observed on site: these were a BT post to the front of the property with lines running over the site.
- No visual inspections of any services were made below ground level.
- There is no known history on this site either personal nor from a third party.

3.3 Identification and location of the trees:

I have illustrated the locations of the significant trees on the digital maps included in Appendix 'D'. These plans are for illustrative purposes only and it should not be used for directly scaling measurements. All the relevant information on it is contained within this report and the provided documents.

3.4 Soil assessment

An assessment of the underling bedrock profile has been undertaken using the British Geological Survey web site (<http://mapapps2.bgs.ac.uk/geoindex/home.html>) to determine as far as reasonably practicable the presence of any shrinkable clay soils and there possible implications on the design of the development.

The bedrock formation found on or around this site is:

- GRIT MEMBER - SANDSTONE AND SILTSTONE, INTERBEDDED

The superficial deposits found on or around this site are:

- DEVENSIAN - DIAMICTON

From this data it has been determined that the soil is not shrinkable. If a more detailed analysis is required, then this must be undertaken by an expert in soil analysis with access to a specialist laboratory.

3.5 Restrictions:

Due to the deadline for submitting this report I cannot confirm or deny any constraints.

If I am contacted by the Tree Officer in the meantime I will forward any information to yourselves but until this, I advise that you contact the local authority before commencing with any tree works

The Arboricultural Officers details are listed below:

David Hewitt,
Arboricultural Planning and Tree Preservation Officer,
Ribble Valley Borough Council
Council Offices,
Church Walk,
Clitheroe,
Lancashire,
BB7 2RA
Tel: 01200 414505,
E-mail: david.hewitt@ribblevalley.gov.uk



Tree Preservation Orders (TPO)

A tree preservation order, referred to as a 'TPO', is an order made by a local planning authority ('LPA') in respect of trees or woodlands.

The principal effect of a TPO is to prohibit the: Cutting down, uprooting, topping, lopping, wilful damage, or wilful destruction of trees without the LPAs consent. The cutting of roots is potentially damaging and so, in the Secretary of State's view, requires the LPAs consent.

Anyone who, in contravention of a TPO, wilfully damages a tree in a way that is likely to destroy it is guilty of an offence. Anyone found guilty of this offence is liable, if convicted in the Magistrates Court, to a fine of up to £20,000. In serious cases a person may be committed for trial in the Crown Court and, if convicted, is liable to an unlimited fine.

Conservation Areas (CA)

Conservation Areas are areas of special architectural or historical interest with a character or appearance that is desirable to preserve or enhance. Trees may often contribute to the special character of the area.

All trees in a Conservation Area are subject to controls which enable the LPA to protect the special character of the area created by the trees. If trees have a specific Tree Preservation Order (TPO) on them, then the normal Tree Preservation Order controls apply.

You must give the LPA 6 weeks' notice, in writing, of your intention to do any work to trees in a Conservation Area. You must not carry out any work during the six week period, which starts from the date of receipt of your notification by the council, unless you receive written permission to do so.

Work which is not exempt and is carried out without formal notification or within the six week period without the written consent of the council is illegal. The LPA may prosecute offenders and fines of up to £20,000 for each tree may be imposed by the Magistrates Court in the event of offenders being convicted of an offence. If proceedings are instituted in the Crown Court fines are unlimited. There is a duty to replace any tree removed without permission.

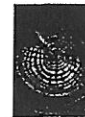
It is strongly advised that prior to undertaking work to tree/s an up to date check is carried out to establish if a TPO / CA is in force on the tree/s.

The information in this report is correct at the time of writing but it is possible that conditions could have been applied to the tree/s after this report was written.

3.5 Collection of basic data:

I inspected each tree and have indicated the numbering on the site map enclosed in Appendix 'D'. I identified obvious hedges and groups where appropriate. For each individual tree, group or hedge, I collected information on species, height, diameter, maturity and potential for contribution to amenity in a development context. I have recorded this information in the tree schedule included as Appendix 'E'.

I stress that my inspection was of a preliminary nature and did not involve any climbing or detailed investigation beyond what was visible from accessible points at ground level. This data collection is fully compliant with the *BS 5837:2012 Trees in relation to design*,



demolition and construction – Recommendations set out in subsection 4.4.2.5 of the standard.

4.0 Tree Categorisation

4.0 Guidance:

BS 5837:2012 is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 30 April 2012 and supersedes BS 5837:2005, which has been withdrawn.

BS 5837:2012 provides recommendations and guidance for arboriculturists, architects, builders, engineers, and landscape architects. It is also expected to be of interest to land managers, contractors, planners, statutory undertakers, surveyors, and all others interested in harmony between trees and development in its broadest sense.

The category for the tree is ascertained by following the guidelines in the BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations “Cascade chart for tree quality assessment” included with the TCP tree schedule in Appendix ‘F’. A brief summary of each category is outlined as follows:

4.1 Category ‘A’ trees:

This category signifies trees that are of a high quality and value with an estimated remaining life expectancy of at least 40 years. Occasionally a veteran tree, although not in the best condition may warrant this category because of its wildlife and cultural value.

It is essential to retain these trees. The design of the proposed development should take into account the retention of category ‘A’ trees. A design layout that suggests the removal of category ‘A’ trees has a high increased risk of planning refusal.

4.2 Category ‘B’ trees:

This category signifies trees that are of a moderate quality and value with an estimated remaining life expectancy of at least 20 years.

It is important to retain these trees. The design of the proposed development, where feasibly possible, should take into account the retention of category ‘B’ trees. A design layout that suggests the removal of category ‘B’ trees has an increased risk of planning refusal.

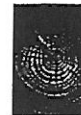
4.3 Category ‘C’ trees:

This category signifies trees that are of low quality and value with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.

They are generally trees that could remain and are expected to have a safe useful life expectancy of between 10 and 20 years if no development were to occur. However, because of their generally low quality it would not be a great loss if they had to be removed if they were a significant constraint to the design or construction process of the proposed development. Particular attention is drawn to the phrase “significant constraint”.

4.4 Category ‘U’ trees:

This category signifies trees that are in such a condition that they cannot be realistically be retained as living trees in the context of the current land use for longer than 10 years



and which should, in the current context, be removed for reasons of sound arboricultural management.

5.0 Root Protection Areas (RPAs)

5.1 Why do we need root protection areas?

Approximately eighty percent of a tree's roots are in the top 600 mm of soil. Therefore any changes in this vital environment including: ground level, soil compaction, physical damage to roots, moisture or levels of contaminants can have a dramatic effect on the health of a tree. At deeper strata alterations in water table and routing of services can cause detrimental, long term, effects.

5.2 Method of calculations:

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

The RPA is calculated using a formula based upon the diameter of the tree at 1.5 metres high for single stem trees and near ground level for multi-stem trees. At this stage it is generally represented by a circle centred on the trees stem. A small percentage lost from the outside of the circle may be tolerated by the tree or offset in another direction. However, where there are significant existing constraints additional root loss in close proximity near to a tree's stem is likely to have a detrimental effect on the trees health or even complete failure of the root plate.

5.3 How to use RPAs:

The RPAs for the trees in question are indicated in Appendix 'E'. At this point the RPA is only indicative and intended to assist in preparing the design layout.

5.4 Optimum RPA calculation:

If the site conditions prevail it is recommended to increase the size of the RPA to accommodate as much potential rooting area as possible, this it will reduce any conflict with the tree and minimise the chance of rejection / conflict with the planning application / Local Planning Authority.

6.0 Pre Development Appraisal

6.1 Category 'U' trees (Removal):

There is 1 tree recommended for removal these are; T35. The reasons for removal are due to poor form, suppression or dieback within the tree, details for each tree can be found in the survey data.

6.2 Category 'A' trees:

There is 1 tree that should be retained due to the physiological and structural strengths of the trees and the contribution to the amenity value that they make now and there potential in the future.

6.3 Category 'B' trees:

There are 6 trees that should be retained if feasibly possible in line with the proposed development. Each tree should be assessed as to the impact it has on the development and recommendations drawn from this as to whether removal is an option.



6.4 Category 'C' trees:

There are 13 trees that should be retained but removal is an option if the tree / trees impinge on the proposed development.

6.5 Groups:

There are no category 'A' groups located on or bordering this site.

There is 1 category 'B' groups that should be retained if feasibly possible in line with the proposed development. Each tree should be assessed as to the impact it has on the development and recommendations drawn from this as to whether removal is an option. There are no perceived plans to encroach anywhere near this group at present

There are no category 'C' groups located on or bordering this site.

6.6 Conflict:

There will be conflict with some of the trees on this site but retention of the front cluster of trees should be retained to maintain the visual amenity aspect of the site. Some of the trees to the right of the property will need to be removed to permit any development to proceed however it would not be of great detriment to the site if these trees were removed on the condition that replacement trees are planted around the site perimeter where there is plenty of room for the trees to develop into mature specimens over time.

6.7 Tree works:

The management options noted in the survey data should be followed so to keep a maintained tree stock on and around this development site, particularly giving clearance from properties and over any adopted roads or footpaths.



7.0 Arboricultural Implications Assessment

7.1 Summary of the impact on trees:

I have assessed the impact of the proposal on the trees / groups by the extent of disturbance in and around the RPAs and the current and future canopy height and spread. All the trees / groups that may be affected by the development proposal are listed in table 1.

Table 1: Summary of the trees / groups that may be affected by the development on this site if the current proposed plans are implemented.

Impact	Reason	Important trees		Unimportant trees	
		A.	B	C	U
Trees / groups to be removed	Building construction, new surfacing, tree quality and / or, proximity	#	T031	T020, T030, T032, T033, T034, T036, T037, T038, T039, T040.	T035
Trees / groups that may be adversely effected by the tree canopy or through disturbance to RPAs	Removal of existing surfacing / structures / landscaping and or installation of new surfacing / structures / landscaping	#	T021	#	#

7.2 Category A and B trees to be removed:

There are no category 'A' trees located on or immediately adjacent to the site that are to be removed.

Only one category 'B' tree (T031) will be removed. Although this single individual tree has been classified as a high category tree it must be stressed that this categorization is marginal due to its relatively poor canopy framework. Its removal may be noticeable in the immediate vicinity in the short term but there will be no significant impact on local amenity character in the wider setting in the medium to long terms.

7.3 Category A and B trees that may be adversely affected through RPA disturbance:

There are no category 'A' trees located on or immediately adjacent to the site that may be adversely affected through RPA disturbance.

One category 'B' tree (T021) may be adversely affected by access into the site.

This tree is considered important for retention and has potential to contribute to amenity, so any adverse impacts on it should be minimised. I have reviewed the situation carefully and my experience is that these trees could be successfully retained without any adverse effects if appropriate protective measures are properly specified and controlled through a detailed arboricultural method statement.



7.4 Category C trees to be lost:

The ten trees to be removed are category 'C' because of their poor form, size or species selection in relation to location and considered to have limited potential for long term retention. As such they are considered to be unworthy of influencing any layout. I believe it is not important in the overall planning context and its loss should not influence the determination of this application.

7.5 Retained category C trees that may be adversely affected through RPA disturbance:

There are no category 'C' trees located on or immediately adjacent to the site that may be adversely affected through RPA disturbance.

7.6 Presence of Tree Preservation Orders (TPO) or Conservation Area Designation:

The presence of a Tree Preservation Order / CA / other constraints, has not been confirmed or denied regarding the trees within the proposed development site at the time of writing this report due to time constraints. It is recommended that this is checked before any tree works are undertaken to avoid any conflict with the local authority.

7.7 Effects of new buildings on amenity value on or near the site:

The effect of the new construction on this site have been assessed and have been found not to have any significant effect on the amenity value of the remaining trees on site

7.8 Below ground constraints:

No construction of foundations or the installations of services are to take place within any Root Protection Area (RPA).

Access to the site may affect the rooting systems of retained trees unless properly protected during the construction phases. If the existing driveway entrance is used and there is no resurfacing there is no foreseen issues with compaction of the driveway, it should be left as a natural permeable surface.

7.9 Above ground constraints:

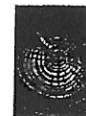
No conflict with above ground constraints are foreseen with the planned proposal.

7.10 Construction processes of the proposed development:

Development processes that lead to soil compaction in tree rooting zones and physical damage to trees can adversely affect long-term tree health. This can lead to unnecessary tree loss if not controlled properly on site during the demolition of a building and then the construction phases that follow.

No access to the RPAs of any retained tree will be permitted before or during construction activity unless the RPA falls within an already existing road. Therefore there is no risk of machinery causing damage to roots, trunks and low branches.

The processes of construction are highly unlikely to have a detrimental effect upon the health of the retained trees assuming recommendations made in this report are adhered to at all times by the contractors e.g. the positioning of a stout fence between the retained trees construction activities is placed prior to commencement of works and remains intact and in position throughout the duration of the construction activities.



7.11 Modifications proposed to accommodate trees:

The siting of the dwelling dispenses with a need to modify building construction to accommodate retained trees. The retained trees are far enough away from the siting of the dwellings so as to permit light infiltration to the windows. This will negate the need for subsequent calls for tree pruning due to shading

7.12 Infrastructure requirements – highway visibility, lighting, CCTV, services etc:

The installation of services within the rooting zones of trees can have a large detrimental impact on the long-term survival of retained trees leading to their unnecessary loss or root failure in high winds.

No services are to be installed within any tree RPA.

The trees on site do not have any impact on highway visibility.

Undisclosed sighting of above ground services, CCTV cameras, electrical sub-stations, refuse stores, lighting and other infrastructure requirements can lead to unnecessary pruning of tree crowns or root loss during or post development. There are no such developments planned to take place adjacent or within the RPA of any retained trees.

7.13 Mitigating tree loss / new planting:

Some tree loss will take place as a result of the development of the site.

As yet there are no proposed replacement trees to be planted. If required as part of planing conditions there are areas throughout the site that can be planted with trees and possibly areas around the development. Any replacement trees would be selected and located allowing development into a mature tree without the conflict between tree, building or surrounding features.

7.14 Proximity of trees to structures:

With the impact of trees on buildings, and vice versa, allowances for future growth have all been considered in the sighting of the new dwellings. Tree size, future growth, light / shading, leaf and fruit nuisance etc have received due attention and are not considered to be an issue.

The structure has been placed well outside of the RPAs of trees and therefore exceeds the recommendations of *BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations*.

8.0 Proposals to mitigate any impact

8.1 Protection of retained trees:

The successful retention of trees depends on the protection and the administrative procedures to ensure those protective measures remain in place whilst there is an unacceptable risk of damage. An effective means of doing this is through an arboricultural method statement that can be specifically referred to in a planning condition. An arboricultural method statement for this site can be written at an additional commission.

8.2 New planting:

In the context of the loss of trees, if replanting is required any future selection of species



and location should remain provisional until all relevant parties had been fully consulted. However, these new trees should be selected on their potential to reach a significant height without excessive inconvenience and be sustainable into the long term, significantly improving the potential of the site to contribute to local amenity and character.

8.3 **Summary of the impact on local amenity:**

This proposal will result in the loss of 10 low category trees and one marginal high category tree. All the significant boundary tree cover located on site will remain intact.

There is plenty of space for new planting and a comprehensive new landscape scheme with heavy standard sized tree planting can be developed if requested by the planning authority as part of a planning condition.

The construction activity and proposed changes may adversely affect further trees if appropriate protective measures are not taken. However, if adequate precautions to protect the retained trees are specified and implemented through an arboricultural method statement, the development proposal will have no adverse impact on the contribution of trees to local amenity or character. Indeed, any new sustainable planting proposals will increase the potential of the site to contribute to local amenity well beyond the short term.

9.0 **Other Considerations**

9.1 **Trees subject to statutory controls:**

If any trees are covered by a tree preservation order or located in a conservation area, it will be necessary to consult the council before any pruning works other than certain exemptions can be carried out. The works specified above are necessary for reasonable management and should be acceptable to the council. However, tree owners should appreciate that they may take an alternative point of view and have the option to refuse consent.

9.2 **Trees outside the property boundaries:**

Any trees that are located in adjacent properties are effectively out of the control of the client / land owner. It will not be possible to easily carry out any recommended works without the full co-operation of the tree owners. The implications of non cooperation require legal interpretation and are beyond the scope of this report. By common law, branches from trees on adjacent properties extending over boundaries can be pruned back to the boundary line without the permission of the owners. However, the material belongs to the tree owner and the same guidance on statutory controls applies as discussed in 8.1 above.

9.3 **Development within the rooting area:**

The zone of influence has been determined using the calculation outlined in Table 2, of section 5.2.2 of *BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations*. This calculation utilises the diameter of the trunk, at a height of 1.5m from the surrounding ground level; and calculates the root protection area (RPA) by multiplying the diameter by a value of 12; the result is then used to calculate the total area (m²) of the RPA. The calculations are illustrated in the tree survey data in Appendix 'E'.



9.4 **Construction Exclusion Zone:**

The values indicate the area of soil around the base of the tree to be retained undisturbed. This area should be protected with vertical barriers and considered sacrosanct. Signs should be erected on the fencing to indicate that the area is a Construction Exclusion Zone (CEZ).

9.5 **Arboricultural Method Statement:**

A detailed Arboricultural Method Statement (AMS), outlining the different stages and progression of construction is available as a further commission. This process should be undertaken once the final decision has been made on the proposed structure (if requested by the Local Planning Authority (LPA)).

9.6 **Implementation of works:**

All tree works should be carried out to BS 3998 *Recommendations for Tree Work* as modified by more recent research. It is advisable to select a contractor from the local authority list and preferably one approved by the Arboricultural Association. Their Register of Contractors is available free from:

Arboricultural Association
The Malthouse,
Stroud Green,
Standish,
Stonehouse,
Gloucestershire
GL10 3DL, UK
Tel: +44 (0)1242 522152
Email: admin@trees.org.uk
Website: www.trees.org.uk/contractors.htm
Fax: +44 (0)1242 577766

9.7 **Local Arboricultural Contractors:**

If requested I can provide a list of reputable arboricultural contractors that have carried out work on previous projects.

9.8 **Safety:**

Tree works can be a hazardous profession, so it is important that all operatives have the necessary and relevant training, health and safety policy and valid forms of insurance.

9.9 **Statutory wildlife obligations:**

The Wildlife and Countryside Act 1981 as amended by the Countryside and Rights of Way Act 2000, provide statutory protection to birds, bats and other species that inhabit trees. All tree work operations are covered by these provisions and advice from an ecologist must be obtained before undertaking any works that might constitute an offence.

9.10 **Future considerations:**

Any remaining trees should be inspected on a regular basis by a qualified arboricultural consultant.

9.11 **Replanting:**

Any trees on this site that are protected by a preservation order and are being recommended for removal, the appropriate replanting of replacement trees will be needed as a condition of the council granting permission for these trees being felled. This should



be incorporated into the landscaping plans at the design stage and followed through after building work is completed.

10.0 Bibliography / References

BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations. – BSI Publication

BS 3998: 2010 Tree work – Recommendations – BSI Publication

[N1]NATIONAL JOINT UTILITIES GROUP (NJUG). *Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees.*
Volume 4, issue 2. London: NJUG, 2007.

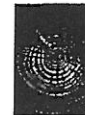
Arboricultural Practice Note (APN) 12 – Through the trees to Development –
Derek Patch and Ben Holding – Arboricultural Advisory and Information Service

Principles of Tree Hazard Assessment and Management – David Lonsdale

The Body Language of Trees – Claus Mattheck and Helge Breloer

Diagnosis of Ill Health in Trees R.G. Strouts and T.G. Winter

A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas – Nelda P. Matheny and
James R. Clark



APPENDIX 'A'

Brief qualifications and experience of Gary Marsden:

Qualifications:

- National Certificate in Arboriculture – August 1998
- The Leonard Cheshire Home Award , Practical Award – September 1998
- NVQ in Amenity Horticulture Level 1 – November 2003
- Foundation Degree In Science - Arboriculture - June 2005
- BTEC Higher National Diploma in Arboriculture – June 2005
- Certified Expert Witness by Cardiff Law School / Bond Solon – December 2011

Practical experience:

After qualifying at NC level in arboriculture I gained full time employment with Blackburn with Darwen Borough Council as an Arborist / Climber (September 1998) where I gained a wide range of practical Arboricultural experience ranging from pruning, dismantling and planting.

In January 2004 I was promoted to Team Leader Arborist where I developed my skills in Arboriculture, leadership, organisation and prioritising workloads.

In August 2005 I was promoted to 'Arboricultural Officer' this job involves:

- Health and Safety of all Arboricultural aspects
- Inspection and scheduling of tree complaints
- Tree surveys and report writing
- Staff management

In July 2008 I set up my own tree consultancy company – GM Tree Consultants – which I am constantly developing and evolving.

Continuing professional development:

As a conscious effort to stay in touch with the progression in modern techniques and practices in the arboricultural industry, I attend seminars, receive regular arboricultural literature and maintain membership of professional bodies, examples of which are listed below:

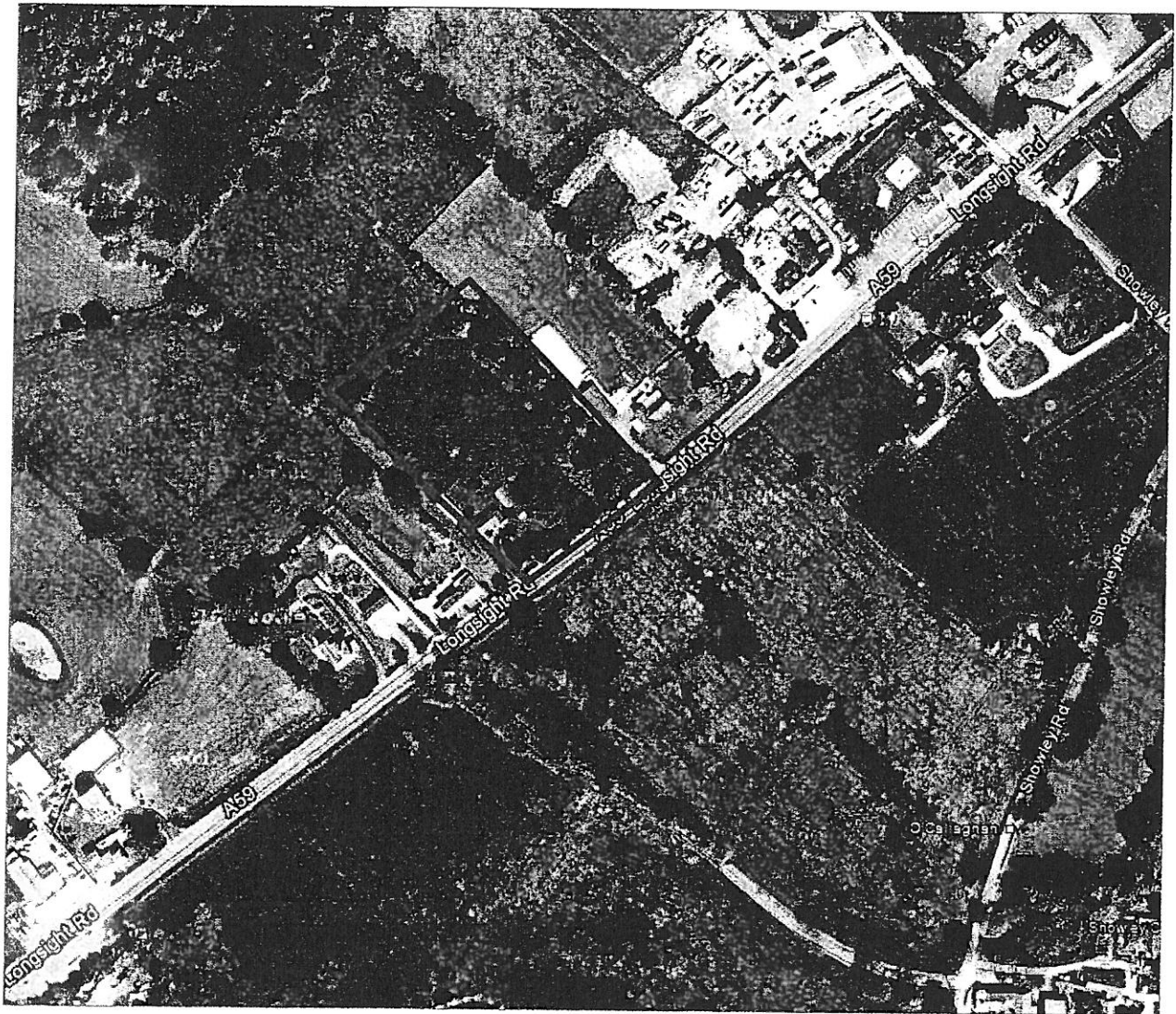
- Arboricultural Association Professional Member since November 2006
- Professional Member of the Consulting Arborist Society since May 2009
- Quantified Tree Risk Assessment licensed user since October 2008
- Attendance of Arboricultural Association annual conferences
- Attendance of specialist short courses in relation to specific fields in arboriculture including: Tree Preservation Orders, Subsidence and mortgage reports, Planning legislation and Tree inspection methods and skills.
- Accredited as an Expert Witness by Cardiff University Law School / Bond Solon since December 2011

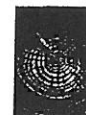
A detailed breakdown of qualifications and continued professional development training is available; please contact me directly for this information if requested.



APPENDIX 'B'

Site Location aerial photo:





APPENDIX 'C'

Tree survey Index

Tree Locations:

This has been measured using a laser distancing device with a digital compass and plotted on the site plan using tree management software. The accuracy given for the tree stem location is $\pm 1\text{m}$.

Tree Number:

Each surveyed feature is assigned an individual number:

e.g. – Tree A072014013 is made up of:

- 'A' – this represents the tablet pc that was used to record the data
- '07' – this is the month that the inspection was recorded
- '20' – the day of the month when the tree was recorded
- '14' – the hour in the day when the tree was recorded
- '013' – the tree number recorded in that hour of the day (when the hour changes this resets to 001)

Alternatively; each surveyed feature is assigned a number prefixed by a 'T' for individual trees, 'G' for groups of trees and 'H' for hedgerows. It is used to locate the tree in the data survey and the relevant position on the plan.

Species:

The species identification is based on visual observations and the common English name of what the tree appeared to be is listed first. In some instances, it may be difficult to quickly and accurately identify a particular tree without further detailed investigations. The botanical name is followed by the abbreviation sp if only the genus is known.

Measured (M) or Estimated (#)

Trees that have been accurately measured are indicated with an 'm'. Trees that are off site or otherwise inaccessible where accurate data cannot be recovered; these trees are indicated with '#'.

Number of stems:

The number of main stems of each individual tree.

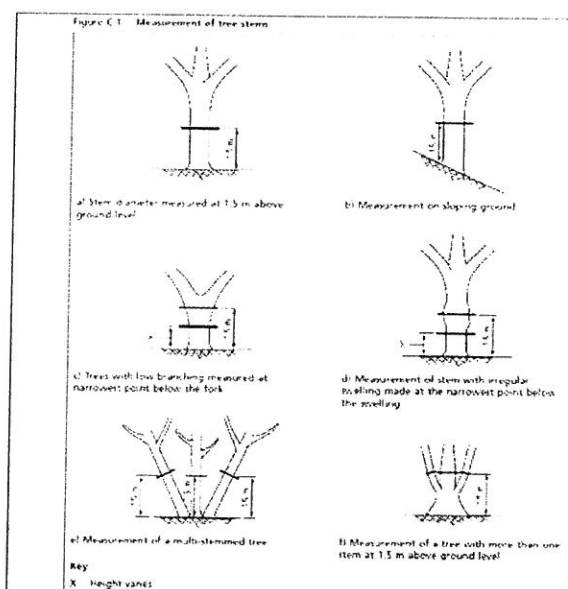
Stem Diameter:

These figures relate to stem diameter in millimetres at 1.5m above ground level. This is accurately measured using a girthing tape, unless access is restricted.

Diameters of single stem trees on level ground are measured in accordance with Figure C.1a).

Diameters of other commonly encountered tree stems are measured in accordance with Figures C.1b) to C.1f).

NOTE - The thick black line indicates where the measurement is taken.



**Root Protection Area:**

This is the minimum area in m^2 which should be left undisturbed around each retained tree.

BS 5837:2012

BRITISH STANDARD

Annex D
(normative)**Root protection area**

The RPAs given in Table D.1 should be used for single stem trees and the equivalent resultant combined stem diameter for multi-stemmed trees.

Table D.1 Root protection areas

Single stem diameter mm	Radius of nominal circle m	RPA m^2	Single stem diameter mm	Radius of nominal circle m	RPA m^2
75	0.90	3	675	8.10	206
100	1.20	5	700	8.40	222
125	1.50	7	725	8.70	238
150	1.80	10	750	9.00	255
175	2.10	14	775	9.30	272
200	2.40	18	800	9.60	290
225	2.70	23	825	9.90	308
250	3.00	28	850	10.20	327
275	3.30	34	875	10.50	346
300	3.60	41	900	10.80	366
325	3.90	48	925	11.10	387
350	4.20	55	950	11.40	408
375	4.50	64	975	11.70	430
400	4.80	72	1000	12.00	452
425	5.10	81	1025	12.30	475
450	5.40	92	1050	12.60	499
475	5.70	102	1075	12.90	519
500	6.00	113	1100	13.20	547
525	6.30	124	1125	13.50	573
550	6.60	137	1150	13.80	598
575	6.90	150	1175	14.10	625
600	7.20	163	1200	14.40	652
625	7.50	177	1225	14.70	679
650	7.80	191	1250*	15.00	707

NOTE These figures are derived from the calculations described in 4.6.

Height:

Overall height of tree recorded in meters. Height is recorded using a digital clinometer.

Potential Height of species:

The expected mature height of the tree as a 'species'.

Potential Spread of species:

The expected mature spread of the tree as a 'species'.

Height of first branch and direction:

Existing height in metres of the first significant branch above ground level and the direction of growth in relation to the 4 cardinal points (NSEW).

Height of canopy above ground level:

Existing height in meters of the canopy above ground level.

Branch Spread:

This is measured in meters taken at the four cardinal points (NSEW) to derive an accurate representation of the crown.

Life stages:

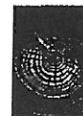
Described as young, semi mature, early mature, mature, over-mature / veteran.

Physiological Condition:

Described as good, fair, poor, dead and notes as needed.

Structural Condition:

Described as good, fair, poor, dead and notes as needed.



Preliminary management recommendations:

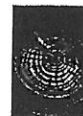
Practical arboricultural operations that are suggested and described as needed.

Remaining Contribution:

Estimated remaining contribution in years: e.g. <10, 10+, 20+, 30+, 40+. This is based upon Jeremy Barrels" system of SULE (Safe Useful Life Expectancy).

Tree Retention Category Grading:

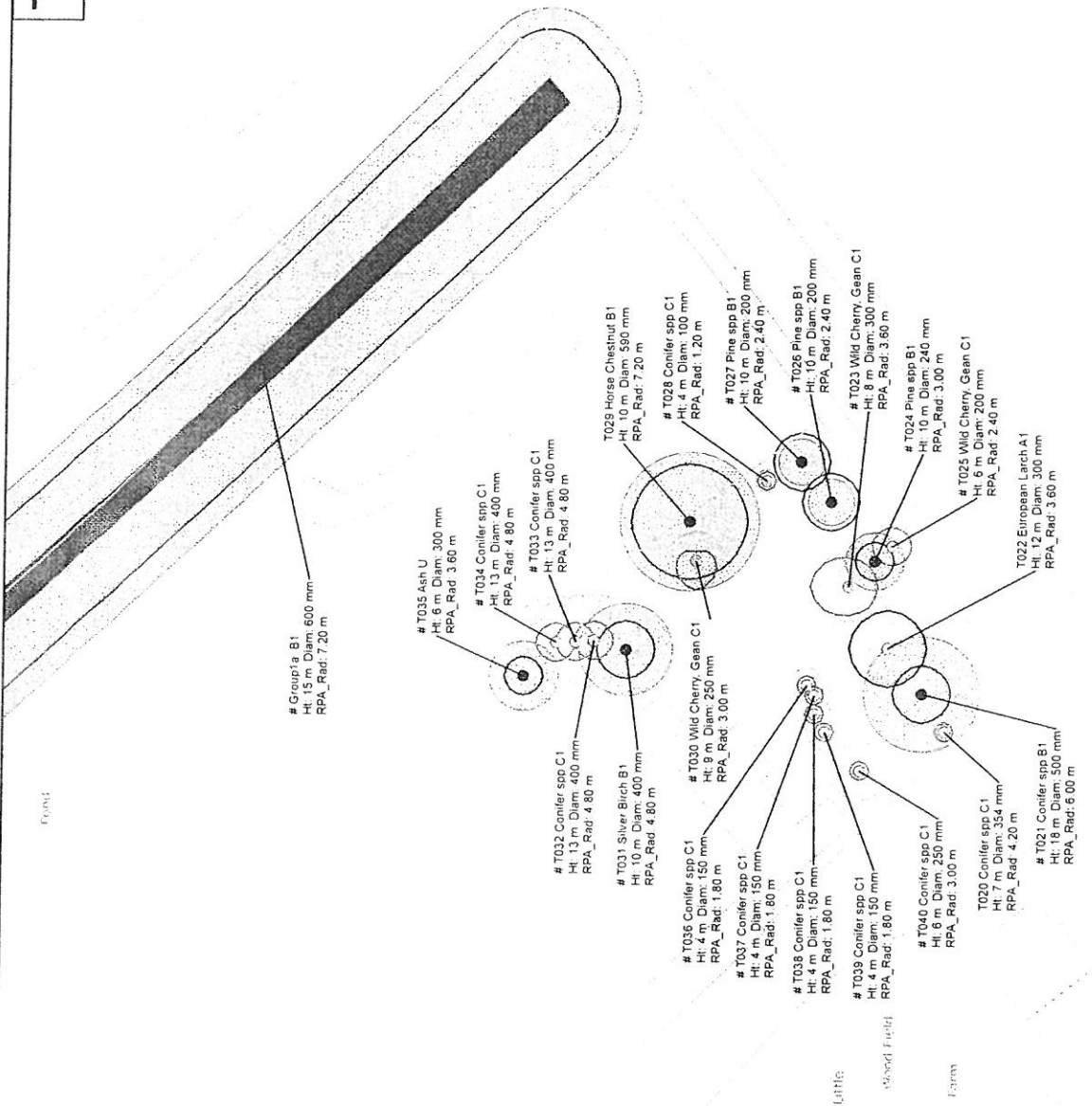
U or A to C category grading as referenced from BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations. (see Table 1 in appendix 6)



APPENDIX 'D'

Inserted site maps showing tree locations and all other relevant details:

Tree Constraints Plan



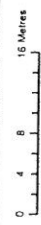
Tree Label Key			
Tree Ref Number	Species	BS Retention Category & Value	
T08	Sycamore	B1	
Ht: 12m	DBH: 420mm	RPA_Rad: 10.6m	
Tree Height	Diameter	Radius of Root Protection Area	

Tree Key	
	Canopy
	Root
	Protection Spread Area Extent

BS5837 Tree Retention Value	
1 - Mainly Arboreal Value	
2 - Mainly Landscape Value	
3 - Mainly Cultural Value	
(inc. conservation value)	

BS5837 Tree Retention Category	
Category A	Desirable to retain in long term
Category B	May be desirable to retain in medium term
Category C	Could retain in short term
Category U	Unsuitable for retention. Remove

Site: Longsight Road, Clayton-le-Dale
Job Ref: 0363



Date: 12th December 2012
Scale (@ A3): 1:500

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APPENDIX 'E'

Tree survey data inserted including the calculations for the root protection zones:

