C.B.E. Consulting

Arboricultural Surveys to BS5837

BS5837:2012 Tree Survey
56 Quadring Road
Donington
Lincolnshire
NGR TF216 353

Survey by
Christopher Barker CEnv dipHort ACIEEM

smas worksafe consultant www.smasltd.com as recognised by SSIP SAFETY SCHEMES IN PROCUREMENT	Report prepared by: C Barker	Date Issued: 08 August 2014
		Report Version: V3
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	Report ref: P673 / 0714- 01	

BS5837 Tree Survey, Land at 56 Quadring Road, Donington.

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Introduction

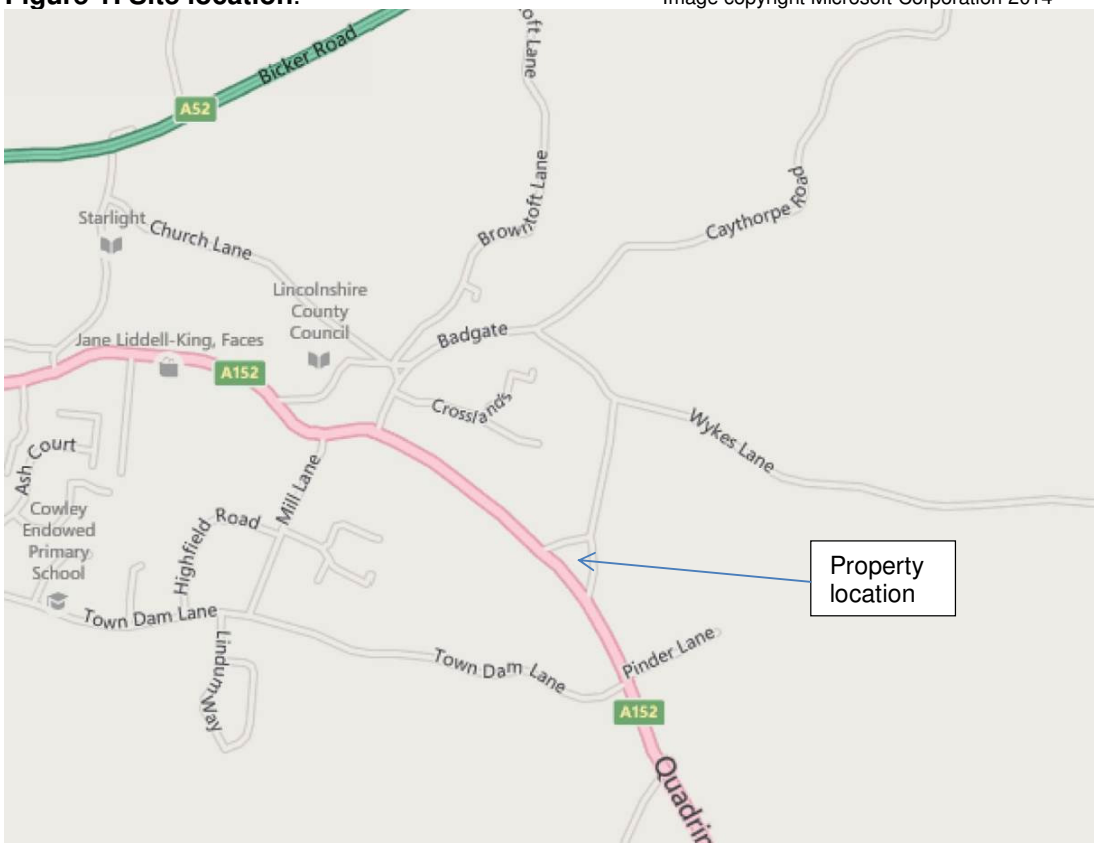
1.1 Site Description and Location

The site surveyed comprises a triangular parcel of land containing a residential house and gardens with outbuildings and an orchard, located at 56 Quadring Road, Donington, Lincolnshire, centred at NGR TF216 353. The location of the site is shown on the plan within **Figure 1** and an aerial photograph has been provided within **Figure 2** to place the site in context.

In order to facilitate an application to obtain permission to replace the existing dwelling the Client has requested a BS5837 (2012) Tree Survey should be completed to assess the quality of the trees within the existing garden and the impact the redevelopment may have on these. An inspection of the site was carried out on 09 July 2014. A photographic record of the trees at the site is included within the report.

Figure 1: Site location.

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1.2 Neighbouring Land Uses and Recent Site History

The site area is entirely separated surrounded by roads and occupies a triangular plot of land adjacent to Quadring Road. It has been a house and garden for a considerable length of time. To the north west of the house is a small open paddock, used previously for grazing but now mown as an extended garden area for amenity purposes. To the south of the house is a small orchard containing apple and pear trees. This is not a commercial orchard but serves the house. To the north east of the house is a lawn within which is a vegetable garden.

The property is surrounded on all sides by open arable land as can be seen in the photograph below. To the north is the village of Donington.

Figure 2: Site Contextual Aerial Photograph Image copyright Microsoft Corporation 2014



The site lies within South Holland District and does not lie within the boundary of a Conservation Area. Telephone consultation with the District Council indicates the trees within the garden and paddock area are not protected under a Tree Preservation Order.

In undertaking the tree survey the assessment has been carried out in accordance with the specifications contained within BS 5837 Trees in Relation to Design, Development and Construction (2012).

An inspection of the site and the immediate surrounding areas was completed on 09 July 2014 by Christopher Barker, dipHort, CEnv, an experienced arboricultural consultant and licensed bat worker.

2. Tree Survey Appraisal Methodology

2.1 Survey Objectives

This tree survey has been carried out with the objective of:

- Identifying the individual tree species present at the site by means of visual inspection;
- To define the approximate age, condition and canopy spread of all individual mature and semi-mature trees identified and the value of these within the development context;
- To identify any trees that present a risk to existing or proposed foundations or other structures that may be constructed on the site and recommend action to remove this risk; and
- Recommend tree management / mitigation measures where appropriate.

The survey took the form of an inspection of the site carried out on 09 July 2014. The survey broadly assessed the condition and arboricultural value of the trees lying in or adjacent to the site area, paying particular attention to any mature individual trees present within or adjacent to the site area in order to prepare an assessment in accordance with BS 5837 Trees in Relation to Design, Development and Construction (2012).

2.2 Survey Methodology

The methodology set out below is a detailed summary of the suggested approach to tree assessment as described in British Standard 5837:2012. This report has applied the methodology to all significant individual trees or groups of trees present at or near to the site. A lands survey plan of the site provided by the land owner has been used to prepare the Tree Location Plan within Section 3 of the report. The location of the trees has been measured on the site but the plan is only approximately to scale but should not be used to measure off distances. Trees below 15 cm trunk diameter were generally excluded from the survey.

2.3 Trees

Trees have been broadly assessed based on guidance set out within the British Standard BS 5837:(2012) Trees in Relation to Design, Development and Construction. This standard provides recommendations and guidance on the principles to be applied to achieve successful integration of development with trees, shrubs and hedgerows. Where development is to occur, the standard provides guidance on the approach needed to decide which trees are appropriate for retention, and the means for protecting these trees during the development (including demolition and construction work) and the means of incorporating trees into the developed landscape.

Trees on the site have been divided into one of four categories (based on the cascade chart for tree quality assessment). These are classed as A, B, C or U (Section 4 of BS 5837) within the table in Appendix 1. This gives an indication as to the tree's importance in relation to the site, the local landscape and, also, the value and quality of the existing trees on site. This assists informal decisions concerning which trees should be removed or retained should development occur. For a tree to qualify under any given category it should fall within the scope of that category's definition (see below). Categories A, B and C cover trees that should be a material consideration in the development process, each with three further sub-categories (i, ii, iii) which are intended to reflect arboricultural, landscape and cultural (nature conservation) values. Category U trees may have no significant landscape value but it is not presumed that there is any overriding need to remove these unless stated otherwise in the description and recommendations. They are for this reason not considered as being significant within the planning process. In assigning trees to the A, B or C categories, and the presence of any serious disease or tree–related hazard is taken into account. If the disease is considered fatal and/or irremediable, or likely to require sanitation for the protection of other trees it may be categorised as U with a recommendation for work or even removal, even if they are otherwise of

considerable value.

Category (A): Trees whose retention is most desirable and are of high quality and value. These trees are considered to be in such a condition as to be able to make a lasting contribution (a minimum of 40 years) and may comprise:

(i) Trees which are particularly good examples of their species especially rare or unusual, or essential components of groups or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue);
(ii) Trees, or groups of trees which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (e.g. avenues or other arboricultural features assessed as groups);
(iii) Trees or groups of significant conservation, historical, commemorative or other value (e.g. Veteran or wood-pasture trees).

Category (B): Trees whose retention is considered desirable and are of moderate quality and value. These trees are considered to be in such a condition as to make a significant contribution (a minimum of 20 years) and may comprise:

(i) Trees that might be included in the high category but because of their numbers or slightly impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage), are downgraded in favour of the best individuals;
(ii) Trees present in numbers such that they form distinct landscape features and attract a higher collective rating than they would as individuals. Individually these trees are not essential components of formal or semi-formal arboricultural features, or trees situated mainly internally to the site and have little visual impact beyond the site;
(iii) Trees with clearly identifiable conservation or other cultural benefits.

Category (C): Trees that could be retained and are considered to be of low quality and value. These trees are in an adequate condition to remain until new planting could be established (a minimum of ten years) or are young trees with a stem diameter below 150 mm and may comprise:

(i) Trees not qualifying in higher categories;
(ii) Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value and or trees offering low or only temporary screening benefit;
(iii) Trees with very limited conservation or other cultural benefits.

Category (U): Trees that are considered to have no significant landscape value but it is not presumed that there is any overriding need to remove these unless stated otherwise in the description and recommendations. They are for this reason not considered as being significant within the planning process. These trees will be in such a condition that any existing value would be lost within 10 years and which should in the current context be ignored or removed for reasons of sound arboricultural management. Trees within this category are:

(i) Trees that have a serious irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees;
(ii) Trees that are dead or are showing signs of significant, immediate or irreversible overall decline;
(iii) Trees infected with pathogens of significance to the health and or/safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality.

Species have been recorded by common and scientific name. Height has been estimated in metres and stem diameter measured in centimetres unless impractical, taken at a height of 1.5 m from the base of the tree.

In the assessment particular consideration has been given to:

(a) The health, vigour and condition of each tree;
(b) The presence of any structural defects in each tree and its life expectancy;
(c) The size and form of each tree and its suitability within the context of the proposed scheme;
(d) The location of each tree relative to existing site features, e.g. its value as a screen or as a skyline feature.

Age class is assessed according to the age class categories referred to in BS 5837.

YNG: Young trees age less than 1/3 life expectancy.
SM: Middle age trees 1/3 – 2/3 life expectancy.
M: Mature trees over 2/3 life expectancy.
OM: Over mature – declining or moribund trees of low vigour.

The overall condition of any individual tree, or group of trees, has been referred to using one of the definitions listed below. A more detailed description of condition has been noted in the Tree Schedule.

G **Good:** A sound tree or trees needing little, if any, attention
F **Fair:** A tree or trees with minor but rectifiable defects or in the early stages of stress, from which it may recover
P **Poor:** A tree or trees with major structural and physiological defects or stressed such that it would be very expensive and inappropriate to retain
D **Dead:** A tree or trees no longer alive. However, this could also apply to those trees that are dying and will be unlikely to recover, or are becoming or have become dangerous

Major defects or diseases and relevant observations have also been recorded. Dead wood has been defined as the following:

Twigs and small branch material	Up to 5 cm in diameter
Minor dead wood	5 cm to 10 cm in diameter
Major dead wood	10 cm in diameter and above

The survey was completed from ground level only. Aerial inspections were not undertaken. Evaluations of tree conditions given within this assessment apply to the date of survey and cannot be assumed to remain unchanged, and it may be necessary to review these within 24 months, in accordance with good arboricultural practice.

2.4 Site Plans & Tree schedules

The position of significant individual trees or groups of trees measured out on the site is shown on the Tree Location Plan (**Figure 3)**. An indicative development plan has been provided and a Constraints Plan showing the position of the RPA's of the key trees of greatest significance has been prepared (**Figure 4).** A summary table providing detailed information on the trees and tree groups is included in Appendix 1. Within the summary table maximum RPA's (m^2) for estimated tree diameters have been included where appropriate, as well as a calculated corresponding radius of the circle for that RPA. The Root Protection Areas are formulated as described below and assist when designing layouts in relation to trees.

2.5 Root Protection Area (RPA)

Below ground constraints to development are represented by the root plate around a tree which needs protecting in order for the tree to be incorporated into a proposed scheme, without adverse harm to the tree or structural integrity of any proposed foundation structures.

This area is calculated according to the formula set out in BS 5837 (2012) clause 4.6.1.

Single Stem Trees:

RPA (m^2) = (stem diameter (mm) x 12 / 1000) ^{2} x 3.142

Multiple Stem Trees:

RPA (m^2) = (combined stem diameters (mm) x 12 / 1000) ^{2} x 3.142

This figure should be capped to 707 m^2, that is, equivalent to a circle with a radius of 15 m, or a square with approximately 26 m sides

Taken from BS5837 (2012) clause 4.6.1.

2.6 Potential For Protected Species

Potential bat roost locations are described within this report using the methodology as that recommended by the Bat Conservation Trust (BCT). Each tree of significant size assessed within this survey has also been assessed for the potential to provide roosts for bats and the table in Appendix 1 includes reference to this.

Potential	Field Signs
Roost confirmed	Confirmed bat roost in tree. Field evidence past or current presence of bats confirmed by droppings, staining or flight.
High roost potential	Up to four features such as splits or cracks in major limbs which develop upwards, smooth surfaces around potential entry points, dense ivy covering, woodpecker / rot holes, significant lifting bark, artificial bat boxes. Ancient or over mature trees where the canopy cannot be fully inspected from the ground.
Medium roost potential	Up to two features such as some splits in branches, dense ivy covering, and small cavities visible, dense epicormic growth. Flies may be present around a potential entry point.
Low roost potential	One feature such as a split may be present in minor branches, sparse ivy cover, and some loose bark evident. Young healthy trees with good visibility to the canopy top.
Negligible roost potential	Tree with a negligible potential to support bat roosts (not supporting any of the above features).

3. Tree Survey Findings

3.1 Survey Details

The tree inspection took the form of a walkover inspection completed by Christopher Barker dipHort, CEnv. Each individual semi-mature or mature tree of significance that could be impacted by any proposed new development within the garden was identified, visually inspected and classified. The character of the trees at the site is shown in photographs contained within this section.

3.2 Mature and Semi-mature Trees

A total of twenty two individual trees (T1 – T22) and five tree groups (TG1 – TG5) have been identified and assessed as part of the tree survey. A number of the trees noted on the site tree plan are large mature specimens in positions of high visibility. The character of the trees within the garden can be seen in the photographs below.

Trees T1 - T3, T19 – T22 and TG1: Garden areas to the north east of the House



Trees T3 (front) and T2 (rear)



Goat Willow TG1



Trees T19 – T22

Trees T1 – T3 occupy a position surrounding the vegetable garden and close to the garden sheds. These are small / medium sized trees of little significant landscape impact. They are not visible from Quadring Road and are placed within Categories C1 and U.

Similarly the Goat Willow of TG1are of relatively small stature and are hidden away behind the garden sheds. These trees also have little landscape significance or visual amenity value and are placed within Category U.

Tree T19 – T22 are the larger specimens within this area of the site however most are very

crowded and of relatively poor quality. Birch, Cherry and Cypress dominate. Hidden near the centre of this group of trees with a tall broad canopy that dominates is Oak T22. The majority of these trees are placed within Categories C2 or U but the Oak is a good specimen worthy of retention that is placed within Category B1.

Trees T4 – T13 and TG2 – TG3: North west of the House and along Quadring Road



Trees T4, 5 and 10 /12 (rear)



Trees T6 – T9



TG2 from the garden paddock



T8/T9 and the corner of TG2



TG2 along Quadring Road



Close up of interior of TG2

The trees within the garden / paddock are a mixture of small Rowan and Apple trees with some larger Birch, Purple Maple and even a Maidenhair tree. The trees in the centre of this area have limited landscape value as they are entirely screened by the larger trees along the boundaries, although Birch T11 has a significant broad headed canopy. Apple T13 is an over-mature specimen that has dropped a number of larger branches and is in close proximity to the existing house.

Maple Trees T8 and T9 are mature specimens that dominate and 'anchor' the northern corner of the site. These two trees are the largest specimens in this position and both are highly visible from Quadring Lane. Similarly the dense tree screen of TG2, dominated by Ash and Cypress with occasional Cherry, Laburnum and Sumach is highly visible and these trees are of significant landscape value to the location. There are no mature or veteran trees within TG2 but the combined linear canopy has significant amenity value. T8, T9 and TG2 are placed within Category B and recommended for retention within any proposed development.

Trees T14 – T18 and TG4 –TG5: South west of the house and the Orchard
Facing Quadring Road and visually dominating the front of the existing house is a large broad headed Purple Beech tree. This has high visual amenity value and it is a high quality tree. This tree is placed within Category A1 and its retention within any proposed development should be a priority.


Beech T15 on road front


Dense Cherry of TG4 on road front

The remaining trees within the front garden of the house are very crowded with canopies merging and competing. The largest tree is a very large over-mature Cherry with a broad headed canopy showing signs of decline. Many of these trees are in poor condition as a result of lack of space.


Orchard tree T18 and TG5

A small orchard occupies a triangular area south of the house. Some quite large cherry trees are present in this area, interspersed with small juvenile fruit trees. These trees are visible from Quadring Road and screen the house from view. There are no significant veteran specimens of high landscape value and these trees all fall into Categories C and U.

Figure 3: Tree Location Plan

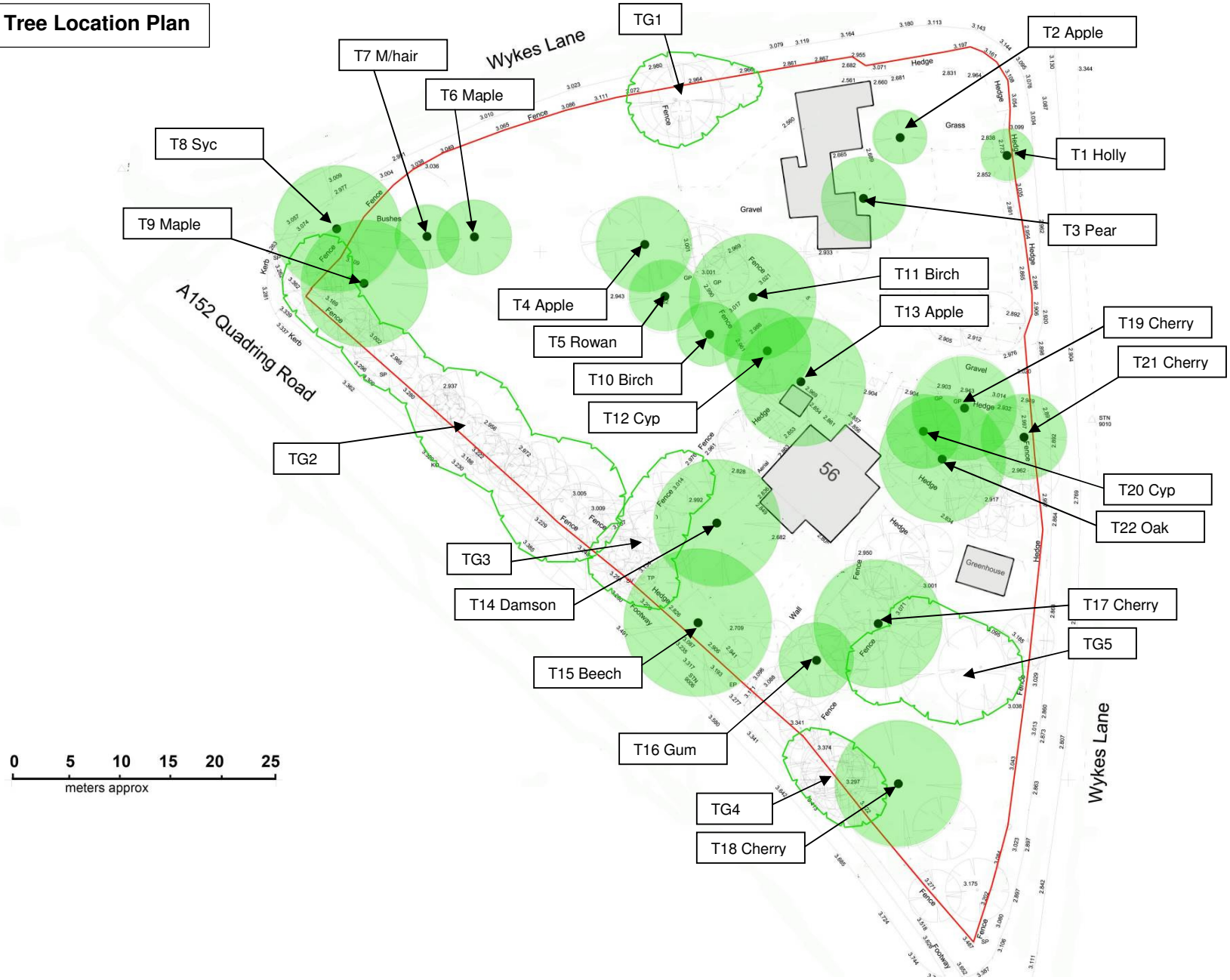




Figure 4: Indicative Constraints Plan

4. Tree Management

4.1 Indicative Arboricultural Assessment

A development plan has been prepared that indicates a new house will be constructed within the paddock garden area to replace the existing property. An Arboricultural Impact Assessment has been provided below. The key boundary trees and better quality specimen trees of Category B or above are all being retained as recommended within the Tree Schedule in Appendix 1, and an indicative assessment of the impact of the development on the trees at the site is provided in the table below.

Tree	Category	Recommendation
T1 Holly	C1	Likely to be retained in this boundary position. Not of high landscape value. No protection measures or canopy works required.
T2 Apple	U	Low landscape value. Shown as retained.
T3 Pear	C1	Low landscape value. Shown as retained.
T4 Apple	C2	Low landscape value. Shown as retained.
T5 Rowan	C2	Shown as being removed. Low landscape value.
T6 Purple Maple	C1	Shown as being removed. Low landscape value.
T7 Maidenhair	C1	Shown as being removed. Low landscape value.
T8 Sycamore	B1	Significant canopy tree. Retained. No canopy works or work within the RPA required. Protective fencing will be erected to protect this tree.
T9 Purple Maple	B1	Significant canopy tree. Retained. No canopy works or work within the RPA required. Protective fencing will be erected to protect this tree.
T10 Birch	C1	Interior tree of moderate landscape value. Shown as removed
T11 Birch	B1	Interior tree of moderate landscape value. Shown as removed
T12 Cypress	C1	Interior tree of moderate landscape value. Shown as removed
T13 Apple	C2	Interior tree of low landscape value. Shown as removed
T14 Purple Damson	U	Shown as retained within the proposed development.
T15 Purple Beech	A1	Significant canopy tree.
T16 Gum	U	Shown as retained within the proposed development.
T17 Cherry	C1	Shown as retained within the proposed development.
T18 Cherry	C1	Shown as retained within the proposed development.
T19 Cherry	C1	Shown as retained near the existing house.
T20 Cypress	C1	Shown as retained near the existing house.
T21 Cherry	C1	Shown as retained near the existing house.
T22 Oak	B1	Significant canopy tree. Shown as retained close to the existing house.
TG1 Goat Willow	U	Shown as being removed to facilitate the development.
TG2 Ash / Cypress	B1	Retain for screening of the site. Protective fencing will be required along the interior side. Consider thinning.
TG3 Rowan	C1	Retained for screening purposes.
TG4 Cherry	C1	Retained for screening purposes.
TG5 Fruit trees	U	Retained for screening purposes.

The majority of the significant trees at this site are in boundary positions and therefore should easily be accommodated into any proposed development provided they do not fall within a proposed access. The trees within TG2 and the large Sycamore T8 and Purple Maple T9 on the boundary with Quadring Road are very significant and provide excellent screening which will be of considerable value if the site interior is developed. Specimen tree Beech T15 is a high value

specimen of significant landscape value and positioned where it is, disturbance of this tree is considered unlikely. This tree would benefit from the removal of nearby smaller trees such as T14, T16 and the crowded group TG3.

The trees to the rear of the existing house are not of high landscape value, with the exception of Oak T22, but these do screen the house.

If the trees recommended for retention – T1, T8, T9, T15, T22 and TG2 are all retained, the canopy cover along Quadring Road will be maintained and the visual amenity afforded by this cover will not be significant reduced. If additional trees located in suitable positions within the site can also be incorporated into any development this will be beneficial.

Fencing will be required to protect the trees close to the footprint of the proposed new house and around the existing house whilst this is being demolished. A Tree Protection Plan can be prepared once details of the construction works are available.

None of the trees at the site will require facilitation pruning or canopy lifting to facilitate the development. The existing access into the site can be used for demolition of the house and the new entrance off Wykes Lane is not positioned close to any of the trees being retained.

Assuming services run from the new house along the proposed access road then there will be no requirement to excavate trenches within any of the RPA's of the retained boundary trees. This can be reviewed once a more detailed construction design is available. No scaffolding will need to be erected within the canopy area of any of the retained trees.

4.2 General Recommendations

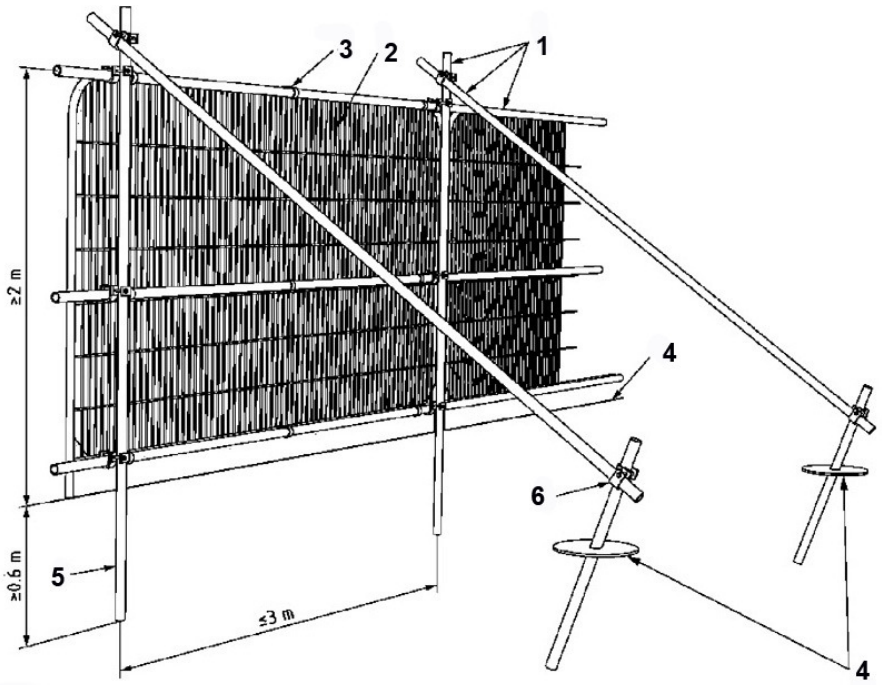
Any trees retained and incorporated within the proposed development will need to be adequately protected during any approved development works. As a general rule at this site, measures to protect trees should follow the best practice principles set out in BS5837: Trees in Relation to Design, Development and Construction (2012). Prior to any construction or development work proceeding, the RPA's of individual trees to be retained should be marked out using the distances provided in the table within Appendix 1. Marking out should be completed by a person with arboricultural or horticultural expertise as individual trees will have root zones that may be affected by local conditions and allowances will need to be made to accommodate this. The best practice principles have been broadly summarised below.

- All trees retained adjacent to the site should be protected by barriers or ground protection around the calculated Root Protection Area (RPA) and as indicated on any Tree Constraints Plan (TCP) that may be produced in association with the assessment.

- Any fencing required should be erected prior to commencement of construction and before demolition including erection of any temporary structures. Once set up fences should not be removed or altered without prior consultation with the arboricultural advisor.

- Arrangements should be made for an arboriculturist to supervise works and tree protection where trees are particularly vulnerable or sited close to access points.

- Pre-development works may be undertaken prior to the installation of fencing with the agreement of the local planning authority.



1. Standard scaffold poles
2. Heavy Guage 2m tall galvanised tube and weld mesh infill panels
3. Panels secured to uprights and cross members with wire ties
4. Ground Level
5. Uprights driven into ground until secure (up to 0.6m)
6. Standard scaffold clamps

- All tree works should follow best practice procedures as set out in BS 3998 (2010). All trees should be maintained in good condition on site and be inspected annually (where overall condition requires) or every 2 years and after any major storm events, with safety a priority.

- Fencing should be clearly visible and suitable for the location, type and proximity of construction activity.

- It may be appropriate on some sites to use temporary site offices as components of the protection barriers.

- Where it has been agreed and shown on a Tree Protection Plan, construction access may take place within the RPA if suitable ground protection measures are in place (e.g. existing surfaced car park areas). In other areas this may comprise single scaffold boards over a compressible layer laid onto geo-textile materials for pedestrian movements. Vehicular movements over the RPA will require the calculation of expected loading and may require the use of proprietary protection systems.

- Once areas around trees have been protected by fencing, any works on the remaining site area may be commenced providing activities do not impinge on protected areas. Notices should be placed on fencing to indicate that operations are not permitted within the fenced area.

- Wide or tall loads etc. should not come into contact with retained trees. Banksman should supervise transit of vehicles, jibs, booms etc. where this is in close proximity to retained trees.

- Oil, bitumen, cement or other material that is potentially injurious to trees should not be stacked or discharged within 10m of a tree bole. No concrete mixing should be done within 10m of a tree. Allowance should be made for the slope of ground to prevent materials running towards the tree.

- No fires will be lit where flames are anticipated to extend to within 5m of tree foliage, branches or trunk, taking into consideration wind direction and size of fire.

- Notice boards, telephone cables or other services should not be attached to any part of a retained tree.

- Where it is deemed necessary to operate a wide or tall load, plant bearing booms, jibs and counterweights or other such equipment, as part of construction works, and such equipment would have potential to cause injurious contact with crown material i.e. low branches and limbs, of retained trees within the RPA fencing, it is best advised that appropriate, but limited tree surgery, be carried out beforehand to remove any obvious problem branches. This is classed as 'Facilitation Pruning' within BS 5837 (2012). Any such pruning should be undertaken in accordance with a specification prepared by an arboriculturalist.

- It is advised that a Pre-Commencement Site Meeting is held with contractors who are responsible for operating machinery, as described above. To firstly highlight the potential for damage occurring to tree crowns and to ensure that extra care is applied when manoeuvring machinery during such operations within close proximity to retained trees to avoid any contact.

- In the event of having caused any such branch or limb damage to retained trees it is strongly recommended that suitable tree surgery be carried out, in accordance with BS 3998 (2010) Recommendations for Tree Work, to correct the damage, upon completion of development.

- All of the above precautionary measures should be applied to minimise the effect of any damage to long-term tree health and safety.

Christopher Barker CEnv dipHort

Appendix 1: BS5837 Tree Schedule

Key:	Measurements	Age – Class	Overall Condition	BS 5837 2005 : Cascade Chart for Quality Assessment/Retention Category	Symbols:
	MS – Multi-stemmed	YNG-MAT-Young Mature	G – Good	A – High	< = less than
	Ht - Height in metres	SM – Semi-mature	F – Fair	B – Moderate	~ = approximately
	Stem – Stem Diameter at 1.5m in mm	Mat – Mature	P – Poor	C – Low	> = greater than
	Crown – Crown spread in metres	OM – Over mature	D – Dead	R – Trees for Removal	
	TD - Trunk division (height in metres)	**Est Yrs –** estimate of years remaining (>40 years; 20 –40 years; <20 years)		**Sub-categories:** **1** = mainly arboricultural values **2** = mainly landscape values **3** = mainly cultural values.	

RPA = Root protection area (equivalent to a circle with a radius 12 x the stem diameter for single stem trees and 10 x the basal diameter for trees with more than one stem arising below 1.5m above ground level).

Tree No	Species	Ht (m)	Stem Diam mm@ 1.5m	Canopy Spread (m)	Height of Crown Clearance	Age Class	Est yrs	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA Radius (m)
T1	*Holly (Ilex aquifolium)*	5	290	N-3 S-3 E-3 W-3	1	M	10 - 20	G	Single trunk divides into 3 leaders at 2.5m. Tight, lightly branching pyramidal canopy. Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Boundary position. Likely to be retained in this position as it provides screening.	C1	3.4
T2	*Apple (Malus domestica)*	6	200	N-2 S-3 E-2 W-2	1	M	10+	F	Single trunk leans to the south supporting an open irregular canopy heavy. Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Small tree of little landscape value likely to be removed to facilitate any development.	U	2.4
T3	*Pear (Pyrus domestica)*	8	360	N-4 S-5 E-3 W-5	2	M	10+	F	Single trunk leaning to the east. Open coarsely branching canopy heavy on the eastern side. Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Small tree of little landscape value likely to be removed to facilitate any development.	C1	4.3
T4	*Crab Apple (Malus sp)*	8	210-310	Variable up to 6	3	M	10	F	Single trunk with a division into two trunks at 0.5m supporting an open, irregular canopy. Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Small tree of little landscape value likely to be removed to facilitate any development.	C1	3.7

Tree No	Species	Ht (m)	Stem Diam mm@ 1.5m	Canopy Spread (m)	Height of Crown Clearance	Age Class	Est yrs	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA Radius (m)
T5	*Rowan (Sorbus acuparia)*	5	160	N-2 S-3 E-3 W-2	2	Y	10 - 20	G	Single trunk supporting a lightly branching, quite dense canopy. Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Small tree of little landscape value likely to be removed to facilitate any development.	C1	1.9
T6	*Purple Norway Maple (Acer platinoides purpurea)*	8	150	N-3 S-3 E-3 W-3	1	Y	20+	G	Single trunk supporting an open lightly branching canopy Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Small tree of little landscape value likely to be removed to facilitate any development.	C1	1.8
T7	*Maidenhair (Ginko biloba)*	9	150 x 2	N-4 S-4 E-4 W-4	3	Y	20+	G	Two trunks at ground l supporting an open ascending canopy. Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Small tree of little landscape value likely to be removed to facilitate any development.	C1	2.0
T8	*Sycamore (Acer pseudoplatanus)*	14	510	N-5 S-4 E-5 W-5	2	M	20 - 40	F	Single trunk. Division into 4 vertical leaders. Broad headed canopy. Light on wire road side. Moderate bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Dominant canopy tree of significant landscape impact. Located within the highway land adjacent to the site boundary. Retain and protect RPA.	B2	6.1
T9	*Purple Sycamore (Acer pseudoplatanus purpurea)*	13	320	N-5 S-6 E-6 W-5	3	M	20 - 40	G	Single trunk supporting an ascending open canopy which is quite broad headed. Crowded by T8 Low bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Dominant canopy tree of significant landscape impact. Located within the highway land adjacent to the site boundary. Retain and protect RPA.	B2	3.8
T10	*Birch (Betula pendula)*	5	150	N-1 S-3 E-2 W-1	2	Y	10 - 20	F	Single trunk supporting a lightly branching, flat topped pendulous canopy. Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Small tree of low landscape value. Central position. This tree may be removed to facilitate any development.	C1	1.8

Tree No	Species	Ht (m)	Stem Diam mm@ 1.5m	Canopy Spread (m)	Height of Crown Clearance	Age Class	Est yrs	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA Radius (m)
T11	*Birch (Betula pendula)*	16	350	N-6 S-7 E-6 W-5	4	M	10 - 20	F	Single trunk with a division into three leaders at 2m. Significant dead wood on north side of canopy. Bird box present. Located in chicken run. Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Central position. This is quite a large tree but it is not highly visible due to the central position close to the house. It is possible this tree may be removed to facilitate the development.	B2	4.2
T12	*Cypress (Chamaecyparis sp)*	9	850-est	N-5 S-5 E-5 W-5	2	OM	10	F	Trunk covered in ivy. Multiple stems from 1m supporting a tall, dense columnar canopy. Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Large cypress tree in central position crowed by the nearby Birch. Recommend this tree is removed as part of any proposed development.	C1	10.2
T13	*Apple (Malus domestica)*	6	560	N-3 S-5 E-5 W-7	3	OM	10	P	Single trunk by garage. 5 coarse branches from 3m supporting very open, irregular canopy. Significant internal rejuvenation. Evidence of dropped branches. Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Old fruit tree of little landscape value crowding the house. Recommend this tree is removed within any development.	C2	6.7
T14	*Purple Damson (Prunus CUL)*	8	200-230	N-5 S-4 E-4 W-5	3	OM	10	F	Two main trunks with significant internal regeneration visible throughout the irregular canopy Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Old damson tree loosing vigour. Recommend this is removed to provide space for better quality trees.	U	2.7
T15	*Purple Beech (Fagus sylvatica atropurpurea)*	18	740	N-6 S-6 E-7 W-7	5	M	20 - 40	G	Single opening into coarse branching crown. Slightly pendulous. High visibility. Bird box. Moderate bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Excellent specimen tree of high landscape amenity value in a prominent position. Retention recommended within any development. Protect canopy and RPA.	A1	8.8

Tree No	Species	Ht (m)	Stem Diam mm@ 1.5m	Canopy Spread (m)	Height of Crown Clearance	Age Class	Est yrs	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA Radius (m)
T16	*Gum (Eucalyptus sp)*	13	290	N-1 S-3 E-3 W-2	>5	SM	10	P	Single trunk with a very sparse, high pendulous canopy. Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Small tree of low landscape value.	U	3.4
T17	*Cherry (Prunus avium)*	15	370 /390	N-8 S-8 E-8 W-8	>5	M	10	P	Two trunks at 1m agl supporting a very broad open canopy that appears to be losing vigour. Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Large broad headed tree nearing the end of its useful life. Consider removing this.	C1	4.6
T18	*Cherry (Prunus avium)*	7	480	N-6 S-7 E-5 W-6	3	OM	10	F	Single trunk which divides to support a horizontally branching, flat topped canopy. Sparse in places. Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Large broad headed tree nearing the end of its useful life. Consider removing this.	C1	5.7
T19	*Cherry (Prunus avium)*	6	320	N-5 S-2 E-3 W-4	5	M	10 - 20	P	Single trunk covered with Ivy supporting an upright very sparse unbalanced canopy. Negligible bat roost potential. Bird box present on trunk. No structural faults evident from ground level.	Rather slight tree in a boundary position. Potentially retained as screening to the existing house but of low landscape value.	U	3.8
T20	*Cypress (Chamaecyparis sp)*	6	410	N-4 S-4 E-4 W-4	2	SM	10 - 20	G	Single trunk dividing into two leaders supporting a lightly branching pyramidal canopy. Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Pyramidal tree crowding the oak nearby providing some screening to the house. This tree could potentially be retained if desirable.	C1	4.9
T21	*Cherry (Prunus avium)*	7	340	N-4 S-3 E-4 W-4	4	SM		G	Single trunk. A strong main leader supporting an open ascending canopy. Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Rather slight tree in a boundary position. Potentially retained as screening to the existing house but of low landscape value.	C1	4.8

Tree No	Species	Ht (m)	Stem Diam mm@ 1.5m	Canopy Spread (m)	Height of Crown Clearance	Age Class	Est yrs	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA Radius (m)
T22	*Oak (Quercus robur)*	10	310	N-4 S-5 E-6 W-3	4	SM	20 - 40	G	Single trunk supporting a coarsely branching canopy with a division at 3m into an open broad headed canopy. Crowded by T20. Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Good quality tree with a dominant high canopy. Recommend this tree is retained adjacent to the existing house. Protect the trunk and RPA.	C1	3.7
TG1	*Goat Willow (Salix caprea)*	7	230-310	Variable to 4m	0	M	10	F	Two nearly horizontal trunks with numerous small vertical trunks arising. Dense light branch canopy. Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Dense growth of willow in boundary position. Not of high landscape value. Not recommended for retention	U	3.7
TG2	*Linear mixed tree screen*	6-10	200-300	Variable up to 5	0	SM/	20	G	Ash and Cypress top canopy. Under canopy of Laburnum, Elder, Staghorn Sumach. Provides a good partial screen to the road. Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Screen of vegetation along the road of high landscape value. Recommend retention of this tree group.	B2	3.6
TG3	*Rowan (Sorbus acuparia) Hawthorn (Crataegus monogyna)*	5-7	<150	Variable up to 3m	2	Y	10 20	F	Hawthorn along roadside. Line of 3 Rowan into centre towards house. All in garden border. Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Dense crowded group of small trees, suppressed by Damson T14. These trees could be retained if it is desirable to do so.	C2	1.8
TG4	*Cherry (Prunus avium)*	5-7	<150-260	Variable up to 4m	0	Y/ SM		P	Line of dense cherry growth covered in ivy. Provides some screening to road Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Dense screen of crowded Cherry. Not of high landscape value but these trees do provide screening to the house. Consider retaining these if it is practical to do so.	U	3.1

Tree No	Species	Ht (m)	Stem Diam mm@ 1.5m	Canopy Spread (m)	Height of Crown Clearance	Age Class	Est yrs	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA Radius (m)
TG5	*Fruit Trees Apple x 7*	3 – 6	<150 – 300	Variable up to 6m	Variable to 2m	V/ M	10 - 20	F	Group of 7 apple tree of various ages in small orchard. No individual specimens of note Negligible bat roost potential. No nesting birds at the time of the survey. No structural faults evident from ground level.	Small trees of little landscape value. It is likely these will need to be removed to facilitate any development of this area.	U	3.6