

## Arboricultural Impact Assessment

**Land at**  
Wrights Garage  
Bryn Y Coed  
Pen Y Cae  
Wrexham

**Ref:**  
AIA/WGP/01/15

**Date:**  
21<sup>st</sup> January 2015

**Commissioned by:**  
Blueprint Architectural

**Prepared by**  
S. Shields

## Arboricultural Impact Assessment

Wrights Garage  
Bryn Y Coed  
Pen Y Cae  
Wrexham

*This Arboricultural Impact Assessment has been prepared in accordance with the protocols, standards and procedures set out in BS 5837: 2012 'Trees in relation to design, demolition and construction'.*

### **Summary**

The site occupies an area of land extending to approximately 1.2 hectares, within the village of Pen Y Cae. The site is currently supports a disused commercial garage, an area of plantation woodland and an area of fallow ground. It is proposed to develop the site to provide residential housing with associated infrastructure.

An assessment of the existing trees and woodland on and adjacent to the site has been undertaken in accordance with the recommendations of BS 5837. The survey recorded 37 individual trees, 1 group of trees, 1 area of woodland and 1 area of scrub which have been categorised in terms of their current amenity value.

The proposed development will require the removal of the 6 category U trees. These trees are in poor condition and their retention is not advisable regardless of development. The proposed development will also required the removal of trees T11 – T14, these are not significant specimens and its loss would not impact on the wider amenity of the area. It may also be considered advisable to remove and replace a further 6 trees. T4 – T9 and group G15. The trees are self set, multi stem specimens with a low amenity value and the group is an old overgrown hedge. The removal of these trees would have little impact on the wider amenity of the area and would allow for new sustainable landscaping to be undertaken as part of the development.

The development also provides the opportunity to undertake management work to the area of plantation woodland. This could include thinning or felling of the conifers to allow for replacement with native broadleaf tree species and could include measures to diversify habitat to provide an area of sustainable woodland

*This report, including appendices and attached plans, is the property of Shields Arboricultural Consultancy and is issued for the sole use of the client as identified in section 1.1 on the condition it is not reproduced, retained or disclosed to any unauthorised person, either wholly or in part without the written consent of Shields Arboricultural Consultancy. Ordnance Survey material is used with permission of The Controller of HMSO, Crown copyright 0100031673.*

---

## **Contents**

|             |                                                 |
|-------------|-------------------------------------------------|
| <b>1.0</b>  | <b>Instruction</b>                              |
| <b>2.0</b>  | <b>Scope &amp; Limitations</b>                  |
| <b>3.0</b>  | <b>Statutory Controls &amp; Obligations</b>     |
| <b>4.0</b>  | <b>Site Description</b>                         |
| <b>5.0</b>  | <b>Development Proposal</b>                     |
| <b>6.0</b>  | <b>Tree Assessment &amp; Survey Methodology</b> |
| <b>7.0</b>  | <b>Arboricultural Impact Assessment</b>         |
| <b>8.0</b>  | <b>Arboricultural Operations</b>                |
| <b>9.0</b>  | <b>Tree Protection Method Statement</b>         |
| <b>10.0</b> | <b>Conclusion</b>                               |

---

## **Instruction**

- 1.1 Shields Arboricultural Consultancy received instructions from Ms L Parry on behalf of Blueprint Architectural to undertake an arboricultural impact assessment at the above site.
- 1.2 It is proposed to develop the site to provide residential housing with associated infrastructure.

## **Scope & Limitations**

- 2.1 The purpose of the report is to assess the environmental and amenity values of all trees on or adjacent to the area affected by the proposed development. The report will assess the long-term contribution that the trees can make to the area and the arboricultural implications of retaining them and seek to find a satisfactory juxtaposition between the trees and the new development. The report will assess the potential impact that may arise as a result of the proposed construction works and make recommendations for protecting trees, hedges and shrubs where appropriate
- 2.2 The report is prepared in accordance with the recommendations of the British Standard Document BS 5837: 2012 'Trees in relation to design, demolition and construction'
- 2.3 This report is not an ecological assessment and does not identify habitats or constitute a protected species survey.

## **Statutory Controls & Obligations**

- 3.1 Forestry Act; the felling of trees is controlled by the Forestry Act, which requires that a felling licence is obtained prior to cutting down any trees. The Forestry Act does not apply to the felling of trees growing within an orchard, private garden, churchyard or public open space. The Forestry Commission has the responsibility for enforcing the Forestry Act.
- 3.2 Tree Preservation Orders & Conservation Areas; Local Authorities have specific powers under the Town & Country Planning Act 1990 as amended, to protect trees through the use of Tree Preservation Orders. Where trees are protected under such orders it is a criminal offence (subject to any exemptions for which provision may be made by the act or order) to undertake, cause or permit the cutting down, topping, lopping, uprooting, wilful damage or wilful destruction of trees except with the consent of the local planning authority. Similar controls apply to all trees growing within a designated Conservation Area.
- 3.3 Bats, wild birds and other protected species; The Wildlife & Countryside Act & the Conservation (Natural Habitats & C.) Regulations make it an offence to disturb or destroy bats and bat roosts and wild birds and their nests. Other species of plant and animal are also protected. These creatures often inhabit trees and sufficient care must be taken to ensure they are not affected during forestry and arboricultural works.

---

## **Site description**

- 4.1 The site occupies an area of land extending to approximately 1.2 hectares, within the village of Pen Y Cae. The site is currently supports a disused commercial garage, an area of plantation woodland and an area of fallow ground. The site is accessed off Bryn Y Coed, a C class public highway. The site is bounded by a small river – Afon Eitha – to the north, an area of woodland to the east, agricultural land to the west and the highway to the south.
- 4.2 There are a number of trees present on the site, including an area of plantation woodland, a line of trees adjacent to the river, and area of scrub and a number of other self set specimens.
- 4.3 The site is on two levels, with an area of level ground, supporting the disused garage forming the north west section before sloping steeply down to a second area of level ground adjacent to the river. The site is at elevations of between 180m and 160m AOD and is sheltered.

### *Soils*

- 4.4 Soils range across the site from disturbed, made up ground around the existing buildings, through free draining, on the slopes to slow draining in the area adjacent to the river. Soils appear to be of reasonable depth, with the only significant restrictions to root development in the area adjacent to the existing buildings. Geological maps show river terrace deposits of sand and gravel over coal measures.

*NB. This soil assessment is undertaken in situ using visual and manual techniques and is **only** for the purpose of establishing the influence of site soils on tree growth. The assessment **must not** be relied upon to inform any engineering decisions.*

## **Development Proposal**

- 5.1 It is proposed to develop the site to provide residential housing with associated infrastructure.

## **Tree Survey Methodology**

- 6.1 All trees within and adjacent to the site have been assessed where they are within 15 m of any area that may be disturbed as a result of the proposed development and have a stem diameter over 75mm at 1.5 metres. Measurements have been taken in accordance with the procedures and protocols set out in BS 5837: 2012 and the Forest Mensuration Handbook. Height measurements are approximate unless otherwise stated. Trees have been assessed as individuals, groups or woodlands as appropriate. Where access to trees has been restricted, either as a result of their situation on private land or where vegetation or ground conditions are unfavourable, an estimation of trunk diameter has been made. This entails using a set of callipers to approximate the measurement. Estimates are rounded up to provide a

margin. This technique has only been used where there is a sufficient buffer between the RPAs and any area disturbed by development. Where trees are in woodlands or groups only the outside edge trees are assessed unless there are larger trees with RPAs or crowns that would overlap the edge trees.

- 6.2 BS 5837: 2012 provides the framework through which tree can be categorised in terms of their health, amenity value and long-term viability for retention on a development site. There are four categories, A,B,C & U.

**Category A:** Trees of high quality and value in such a condition as to be able to make a substantial contribution (a minimum of 40 years)

- 1 Trees that are particularly good examples of their species, or essential components of groups or formal arboricultural features.
- 2 Trees, groups or woodlands that 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.
- 3 Trees, groups or woodlands of significant conservation, historical, commemorative or other value.

**Category B:** Trees of moderate quality and value in such a condition to make a significant contribution (a minimum of 20 years)

- 1 Trees that might be included in a higher category but are downgraded because of impaired condition.
- 2 Trees present in numbers, usually as groups of woodlands that form distinctive landscape features.
- 3 Trees with clearly identifiable conservation or other cultural benefits.

**Category C:** Trees of low quality and value currently in adequate condition to remain until new planting could be established. Trees in this category would not usually be retained if they would pose a significant constraint to development.

**Category U:** Trees in such a condition that their existing value would be lost within 10 years and which should, in the current context be removed for arboricultural reasons.

The most significant or valuable trees are placed in the categories, A & B. Site design should make provision to retain trees in these categories and most Local Planning Authorities will insist upon this (or in exceptional circumstances will require that significant compensation planting is incorporated into the design), whilst trees that should not be a constraint to development are recorded with a C category. Trees categorised as U are in a poor condition and should be removed prior to the commencement of work.

- 6.3 Where trees are to be retained, it is necessary to ensure that they are suitably protected to avoid damage during the construction phase of

the development. It is also important to consider any long term implications, such as issues with shading or leaf litter that may arise as a result of tree retention.

6.4 To ensure that trees are not adversely affected by the construction works it is necessary to:

- a. The avoidance of physical damage to the aerial parts of the trees (i.e. Impact and other damage to trunk and branches)
- b. The avoidance of damage to retained trees as a result of the severance or other physical damage to their roots
- c. Preserve of the character of the soil, through the avoidance of any activity that would cause it to become compacted or otherwise disturbed or disrupted, and to avoid contamination by potentially harmful substances
- d. To ensure free gaseous exchange is permitted between the upper layers of soil and the atmosphere
- e. To ensure adequate (but not excessive) water supply to the soil and hence to tree roots

This would normally be achieved by establishing an area, known as a construction exclusion zone (CEZ) around each tree. The CEZ is derived from the root protection area (RPA) and the crown spread of the tree. The RPA represents the area occupied by the tree's root system and is calculated, in accordance with the formula prescribed in BS 5837, for each tree based on its stem diameter and the ground conditions present taking account of and any impediment to rooting. Where trees are classed as veteran trees, an extended RPA is calculated in accordance with guidance provided in 'Veteran Trees: A guide to good management' published by English Nature. The RPA should represent the most probable position of the tree's root system.

The CEZ must be considered sacrosanct and be maintained completely undisturbed. No construction should take place within this area and it should not be used for storage of materials or fuels. Access for vehicles machinery or personnel is prohibited and to ensure that it is not damaged by construction activity it must be suitably protected during the construction phase, using robust fencing or alternative ground protection methods, to prevent disturbance and damage occurring.

6.5 In addition to the implications that a new development may have for existing trees it is also important to assess any long term issues or concerns that may arise as a result of retaining trees close to a new dwelling or structure. This can include problems associated with leaf litter and other debris that may fall from trees, the potential that a tree has to cause damage to a structure in the future, any on going maintenance requirements that may arise and the level of shade that the tree may cast. Trees can also cause feelings of apprehension to

the occupiers of nearby buildings and can have an over bearing impact on a property if adequate space is not provided.

- 6.6 The report assesses all trees with regard to their size, position and natural characteristics, and taking into account of their future growth makes provides recommendations as to their long term suitability for retention.

### **Arboricultural Assessment**

- 7.1 Full details of the tree surveyed are provided in appendix A. and their relative positions, crown spreads, root protection areas are indicated on the attached plans.
- 7.2 No checks have been undertaken to establish the status of the trees with regards to Tree Preservation Orders or Conservation. No trees or hedges should be felled, lopped, topped or in otherwise removed or damaged without prior permission from the relevant authority.
- 7.3 The survey recorded 37 individual trees, 1 group of trees, 1 area of woodland and 1 area of scrub which are categorised as follows:

| Category                                                                                                                                                                                                                                              | Quantity |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| <b>Category A:</b> Trees of high quality and value in such a condition as to be able to make a substantial contribution (a minimum of 40 years)                                                                                                       | 6        |
| <b>Category B:</b> Trees of moderate quality and value in such a condition to make a significant contribution (a minimum of 20 years)                                                                                                                 | 19       |
| <b>Category C:</b> Trees of low quality and value currently in adequate condition to remain until new planting could be established. Trees in this category would not usually be retained if they would pose a significant constraint to development. | 9        |
| <b>Category U:</b> Trees in such a condition that their existing value would be lost within 10 years and which should, in the current context be removed for arboricultural reasons.                                                                  | 6        |

### *Arboricultural merits and the significance of the trees in the landscape*

- 7.4 The most significant arboricultural features are the area of woodland to the south and east of the site and the rows of individual trees adjacent to the river, T.
- 7.5 The other trees on the site provide some level of amenity to the immediate area, but are not significant in the wider landscape.

### *Arboricultural impacts of the development*

- 7.6 The proposed development will require the removal of the 6 category U trees. These trees are in poor condition and their retention is not advisable regardless of development. The proposed development will also required the removal of trees T11 – T14, these are not significant specimens and its loss would not impact on the wider amenity of the area. It may also be considered advisable to remove and replace a

further 6 trees. T4 – T9 and group G15. The trees are self set, multi stem specimens with a low amenity value and the group is an old overgrown hedge. The removal of these trees would have little impact on the wider amenity of the area and would allow for new sustainable landscaping to be undertaken as part of the development.

- 7.7 The development also provides the opportunity to undertake management work to the area of plantation woodland. This could include thinning or felling of the conifers to allow for replacement with native broadleaf tree species and could include measures to diversify habitat to provide an area of sustainable woodland.

### **Arboricultural Operations and Specification**

- 8.1 **8.1 Permission to remove any tree must be obtained from the Local Planning Authority.** If planning permission is granted the tree removal to implement this development should be undertaken by a suitably qualified person, holding public liability insurance for the sum of £5,000 000. All operators must hold relevant NPTC certificates. A site specific risk assessment must be prepared and operators must work to a health and safety method statement.
- 8.2 The contractor undertaking the work is responsible for any loss or damage arising as a result of the operations and agrees to indemnify the owner against such occurrences.
- 8.3 All tree protection measure specified in the following section and shown on the accompanying TPP are to be fully installed prior to the commencement of the arboricultural works. Where machinery access is required to the trees, then suitable ground protection must be used in lieu of the tree protection fences.

### **Generic Arboricultural Method Statement**

- 9.1 This arboricultural method statement (AMS) sets out the details of tree protection measures afforded to the retained trees on and adjacent to the site.
- 9.2 This document should be read in conjunction with the Interim Tree Protection Plan (TPP) a full TPP will be issued when site plans are finalised for the site. The TPP indicates the area of operations. The remainder of the woodland must remain undisturbed during the construction process and must be protected using suitable fencing as specified.
- 9.3 Copies of the TPP & the AMS must be available on site and all tree protection requirements explained to all persons undertaking activities on the site during the site induction process.
- 9.4 All tree protection measures must be installed and inspected prior to bringing onto the site any plant, materials or equipment or undertaking any construction works or demolition or any arboricultural works. The

LPA must be informed in writing once the tree protection measures are installed.

- 9.5 The site is to be inspected by the consulting arboriculturalist in accordance with the schedule of inspections.
- 9.6 All measurements are given in metric using standard abbreviations.

#### *Fencing and Ground Protection*

- 9.7 The TPP indicates the position all protective fences.
- 9.8 Protective fencing will comprise 'Herres' fence panels set in rubber feet securely fixed in place so as not to be easily moved.
- 9.9 Ground protection is not required.
- 9.10 The protective fencing must be inspected on installation and will remain in place until completion of the construction phase and then only removed with the consent of the LPA.
- 9.11 Other than works approved in writing by the LPA, no works including storage or dumping of materials shall take place within the zones defined by the protective fencing.

#### *General Precautions*

- 9.12 No materials that are likely to have an adverse effect on tree health such as oil, bitumen or cement will be stored or discharged within 10m of the trunk of a tree that is to be retained or within any part of the CEZ.
- 9.13 No fires will be lit within 20m of the trunk of any tree that is to be retained.
- 9.14 Storage and mixing areas must be outside the CEZ and must be identified prior to the commencement of the construction work. Contractor parking must be outside the site.
- 9.15 Access to the work area is via the entrance off the main farm access drive as marked on the TPP.
- 9.16 To ensure that all tree protection measures are properly installed the site must be monitored by Shields Arboricultural Consultancy to the following schedule. Details of the findings and photographic evidence of the site inspection visits will be reported to the LPA by email within 24 hrs of the visit.

#### *Schedule of Inspection*

- 1. Prior to work commencing on site.
- 2. On completion of erection of fencing and installation of ground protection prior to commencement of development works
- 3. Monthly through out the project
- 4. On completion of project
- 9.17 Prior to the commencement on site of any work, a competent person is to be appointed to monitor the day to day activities on site. In the case

of a tree being damaged or where an unexpected event arises it will be for this person to contact Shields Arboricultural Consultancy to seek advice on contingency measures.

## **Conclusion**

- 10.1 The proposed development will not have any significant detrimental impact on the landscape or arboricultural character of the area and would provide an opportunity to improve and enhance the existing resource.

**S.J.A. Shields**

***Uni. Cert. For. & F.P. (Bangor)***

***Dip. Arb. (RFS), M.Arbor.A, MICFor.***

***Chartered Forester***

**21<sup>st</sup> January 2015**

## Arboricultural Assessment

| Ref. No. | Species                              | Top Height | Stem Dia mm         | Stems | N | E   | S | W   | CC | FSB | Age | Rem Cont. | Cat. | RPA m <sup>2</sup> | Notes                                                                                                                                                                          |
|----------|--------------------------------------|------------|---------------------|-------|---|-----|---|-----|----|-----|-----|-----------|------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T1       | Goat Willow<br>( <i>Salix sp.</i> )  | 12         | 300,<br>250,<br>260 | 3     | 4 | 4   | 5 | 5   |    |     | M   | < 10      | U    | 100                | <b>Condition:</b> Poor<br><br><b>AIA</b> Tree is in poor condition and has a limited life expectancy. It is recommended that this tree be removed for arboricultural reasons.  |
| T2       | Apple<br>( <i>Malus sp.</i> )        | 7          | 300,<br>230         | 2     | 3 | 4.8 | 4 | 5   | 2  |     | OM  | < 10      | U    | 65                 | <b>Condition:</b> Poor<br><br><b>AIA:</b> Tree is in poor condition and has a limited life expectancy. It is recommended that this tree be removed for arboricultural reasons. |
| T3       | Apple<br>( <i>Malus sp.</i> )        | 8          | 250,<br>200         | 2     | 3 | 4.8 | 1 | 5.3 |    |     | OM  | < 10      | U    | 46                 | <b>Condition:</b> Poor<br><br><b>AIA:</b> Tree is in poor condition and has a limited life expectancy. It is recommended that this tree be removed for arboricultural reasons. |
| T4       | Ash<br>( <i>Fraxinus excelsior</i> ) | 14         | 280                 |       | 5 | 6   | 9 | 4   | 3  | NW  | EM  | 10+       | C2   | 36                 | <b>Condition:</b> Fair – Multi-stem trees.<br><br><b>AIA:</b> Forming a group of self-set trees on steeply                                                                     |

|     |                                            |    |                                        |   |    |     |     |     |   |  |    |     |    |     |                                                                                                                                                                                                                                                                  |
|-----|--------------------------------------------|----|----------------------------------------|---|----|-----|-----|-----|---|--|----|-----|----|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                            |    |                                        |   |    |     |     |     |   |  |    |     |    |     | sloping bank to the north of the existing garage. Could be retained under the current layout, however if removed any loss of amenity could be replaced through new landscape planting and this may be considered a more sustainable approach in the longer term. |
| T5  | Ash<br>( <i>Fraxinus excelsior</i> )       | 18 | 510,<br>190 ,<br>190                   | 3 | 2  | 3   | 7   | 8   | 4 |  | M  | 20+ | B2 | 150 | As T4                                                                                                                                                                                                                                                            |
| T6  | Ash<br>( <i>Fraxinus excelsior</i> )       | 18 | 600                                    |   | 6  | 1   | 2   | 9   |   |  | M  | 20+ | B2 | 163 | As T4                                                                                                                                                                                                                                                            |
| T7  | Ash<br>( <i>Fraxinus excelsior</i> )       | 18 | 450,<br>280 ,<br>480 ,<br>190 ,<br>190 | 5 | 11 | 6   | 9   | 9   |   |  | M  | 20+ | B2 | 264 | As T4                                                                                                                                                                                                                                                            |
| T8  | Sycamore<br>( <i>Acer pseudoplatanus</i> ) | 18 | 500,<br>480                            | 2 | 6  | 6.3 | 7   | 7.1 |   |  | M  | 20+ | B2 | 218 | As T4                                                                                                                                                                                                                                                            |
| T9  | Ash<br>( <i>Fraxinus excelsior</i> )       | 19 | 280                                    |   | 3  | 5.8 | 6.2 | 2   |   |  | EM | 10+ | C2 | 36  | As T4                                                                                                                                                                                                                                                            |
| T10 | Ash<br>( <i>Fraxinus excelsior</i> )       | 15 | 260,<br>350 ,<br>200                   |   | 2  | 4.5 | 5.3 | 5.1 |   |  | EM | 10+ | U  | 104 | <b>Condition:</b> Poor – Decay in stem base.<br><b>AIA:</b> Tree is in poor condition and has a limited life expectancy. It                                                                                                                                      |

|     |                                              |    |                      |   |     |   |     |     |  |  |    |     |    |    |                                                                                                                                                                                                                                                                                                                                   |
|-----|----------------------------------------------|----|----------------------|---|-----|---|-----|-----|--|--|----|-----|----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                              |    |                      |   |     |   |     |     |  |  |    |     |    |    | is recommended that this tree be removed for arboricultural reasons.                                                                                                                                                                                                                                                              |
| T11 | Sweet Chestnut<br>( <i>Castanea sativa</i> ) | 14 | 30                   |   | 4   | 4 | 4.2 | 4.1 |  |  | EM | 20+ | C2 | 41 | <b>Condition:</b> Good<br><br><b>AIA:</b> Minor specimen planted as an amenity tree, would be removed to facilitate development. Any loss of amenity could be replaced through new landscape planting.                                                                                                                            |
| T12 | Beech<br>( <i>Fagus sylvestris</i> )         | 16 | 250,<br>180 ,<br>310 | 3 | 5.2 | 5 | 4.7 | 3.9 |  |  | EM | 20+ | C2 | 86 | <b>As T11</b>                                                                                                                                                                                                                                                                                                                     |
| T13 | Sweet Chestnut<br>( <i>Castanea sativa</i> ) | 14 | 240,<br>260          | 2 | 3.9 | 4 | 4.5 | 3.9 |  |  | EM | 20+ | C2 | 57 | <b>As T11</b>                                                                                                                                                                                                                                                                                                                     |
| T14 | Beech<br>( <i>Fagus sylvestris</i> )         | 16 | 340                  |   | 4.2 | 4 | 4   | 4   |  |  | EM | 20+ | B2 | 52 | <b>As T11</b>                                                                                                                                                                                                                                                                                                                     |
| G15 | Beech<br>( <i>Fagus sylvestris</i> )         | 17 | 280                  |   | 5   | 1 | 5   | 3.9 |  |  | EM | 10+ | C2 | 36 | <b>Condition:</b> Good<br><br><b>AIA:</b> Components of an old hedgerow now overgrown, not particularly significant in the amenity of the site. Could be retained under the current layout, however if removed any loss of amenity could be replaced through new landscape planting and this may be considered a more sustainable |

|     |                                            |    |     |  |   |   |   |     |  |  |    |     |    |     |                                                                                                                                                                                                                                                                                                          |
|-----|--------------------------------------------|----|-----|--|---|---|---|-----|--|--|----|-----|----|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                            |    |     |  |   |   |   |     |  |  |    |     |    |     | approach in the longer term.                                                                                                                                                                                                                                                                             |
| W16 | Norway Spruce<br>( <i>Picea abies</i> )    | 17 | 330 |  | 3 | 3 | 3 | 3   |  |  | EM | 40+ | B2 | 49  | <b>Condition:</b> Good<br><br><b>AIA:</b> Area of un-thinned plantation woodland on steeply sloping ground to the south of the proposed development. Will not be affected by the development but would benefit from management, which could be undertaken as part of the landscaping of the development. |
| T17 | Sycamore<br>( <i>Acer pseudoplatanus</i> ) | 19 | 440 |  | 7 | 2 | 5 | 7.3 |  |  | M  | 20+ | C2 | 88  | <b>Condition:</b> Good<br><br><b>AIA:</b> Part of the wider landscape, this tree is not particularly significant in the amenity of the site. Will be retained under the current layout, however if removed any loss of amenity could be replaced through new landscape planting.                         |
| T18 | Oak<br>( <i>Quercus robur</i> )            | 17 | 800 |  | 5 | 5 | 5 | 11  |  |  | M  | 40+ | A2 | 290 | <b>Condition:</b> Good<br><br><b>AIA:</b> Component of an area of broadleaf woodland on steeply sloping ground to the south and east of the                                                                                                                                                              |

|     |                                            |    |     |  |     |   |     |     |  |  |    |     |    |     |                                                                                                                                                                                                                                                                                                                                                                            |
|-----|--------------------------------------------|----|-----|--|-----|---|-----|-----|--|--|----|-----|----|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                            |    |     |  |     |   |     |     |  |  |    |     |    |     | site. There is sufficient distance between this tree and it will not be impacted by the proposed development. Tree will be retained and protected to the required standard through the construction phase.                                                                                                                                                                 |
| T19 | Sycamore<br>( <i>Acer pseudoplatanus</i> ) | 18 | 620 |  | 5.9 | 3 | 3   | 6.9 |  |  | M  | 20+ | B2 | 174 | <b>Condition:</b> Good<br><br><b>AIA:</b> T19 – T27 form a linear group of trees on the east boundary of the site, immediately adjacent to an area of wet woodland. The trees are significant as a group and will be retained and incorporated into the site layout. The trees can be protected to the required standard during the construction phase of the development. |
| T20 | Sycamore<br>( <i>Acer pseudoplatanus</i> ) | 18 | 260 |  | 3   | 3 | 3   | 2   |  |  | EM | 20+ | B2 | 31  | <b>As T19</b>                                                                                                                                                                                                                                                                                                                                                              |
| T21 | Sycamore<br>( <i>Acer pseudoplatanus</i> ) | 18 | 290 |  | 5.5 | 3 | 3   | 5.2 |  |  | M  | 20+ | B2 | 38  | <b>As T19</b>                                                                                                                                                                                                                                                                                                                                                              |
| T22 | Sycamore<br>( <i>Acer pseudoplatanus</i> ) | 18 | 720 |  | 6.4 | 5 | 5.7 | 6.6 |  |  | M  | 20+ | B2 | 235 | <b>As T19</b>                                                                                                                                                                                                                                                                                                                                                              |

|     |                                            |    |                             |   |     |     |     |     |  |  |    |     |    |    |                                                                                                                                                                                                                                                                    |
|-----|--------------------------------------------|----|-----------------------------|---|-----|-----|-----|-----|--|--|----|-----|----|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T23 | Sycamore<br>( <i>Acer pseudoplatanus</i> ) | 16 | 320                         |   | 3   | 3   | 3   | 5.4 |  |  | M  | 20+ | B2 | 46 | As T19                                                                                                                                                                                                                                                             |
| T24 | Sycamore<br>( <i>Acer pseudoplatanus</i> ) | 16 | 310                         |   | 2   | 2   | 4   | 4.5 |  |  | EM | 20+ | B2 | 44 | As T19                                                                                                                                                                                                                                                             |
| T25 | Sycamore<br>( <i>Acer pseudoplatanus</i> ) | 18 | 320                         |   | 3.6 | 2   | 2   | 4.7 |  |  | EM | 20+ | B2 | 46 | As T19                                                                                                                                                                                                                                                             |
| T26 | Alder<br>( <i>Alnus glutinosa</i> )        | 17 | 410                         |   | 4.9 | 3   | 3.8 | 6.2 |  |  | M  | 20+ | A3 | 76 | As T19                                                                                                                                                                                                                                                             |
| T27 | Alder<br>( <i>Alnus glutinosa</i> )        | 17 | 430                         |   | 4.1 | 3   | 2   | 4.5 |  |  | M  | 20+ | A3 | 84 | As T19                                                                                                                                                                                                                                                             |
| T28 | Alder<br>( <i>Alnus glutinosa</i> )        | 10 | 190                         |   | 3   | 1.5 | 1   | 4   |  |  | EM | 20+ | B3 | 16 | <p><b>Condition:</b> Good</p> <p><b>AIA:</b> Early mature specimen, will be situated in rear garden of a proposed dwelling. Tree can be retained and protected to the required standard during the construction phase of the development.</p>                      |
| T29 | Willow<br>( <i>Salix sp</i> )              | 11 | 100,<br>100 ,<br>80 ,<br>80 | 4 | 5   | 5   | 5   | 5   |  |  | SM | 10+ | C2 | 15 | <p><b>Condition:</b> Fair – Multi-stem.</p> <p><b>AIA:</b> Immature tree growing as a multi-stem bush. Not significant in the wider landscape. Will be retained under the current layout, however if removed any loss of amenity could be replaced through new</p> |

|     |                                            |    |          |  |   |     |     |     |  |  |    |      |    |     |                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----|--------------------------------------------|----|----------|--|---|-----|-----|-----|--|--|----|------|----|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                            |    |          |  |   |     |     |     |  |  |    |      |    |     | landscape planting.                                                                                                                                                                                                                                                                                                                                                                                                                  |
| T30 | Sycamore<br>( <i>Acer pseudoplatanus</i> ) | 18 | 490      |  | 5 | 4.9 | 6.5 | 5.3 |  |  | M  | 40+  | A2 | 109 | <b>Condition:</b> Good<br><b>AIA:</b> T30 – T38 form a significant linear group along the south bank of the adjacent river. These trees are important in the amenity of the area and help to screen the site from the existing residential properties to the north. The group will be retained and incorporated into the site layout and can be protected to the required standard during the construction phase of the development. |
| T31 | Sycamore<br>( <i>Acer pseudoplatanus</i> ) | 18 | 750, 290 |  | 8 | 7   | 7.2 | 7.3 |  |  | M  | 40+  | A2 | 293 | <b>As T30</b>                                                                                                                                                                                                                                                                                                                                                                                                                        |
| T32 | Oak<br>( <i>Quercus robur</i> )            | 16 | 660      |  | 6 | 5.9 | 7.4 | 5.9 |  |  | M  | 40+  | A2 | 197 | <b>As T30</b>                                                                                                                                                                                                                                                                                                                                                                                                                        |
| T33 | Hawthorn<br>( <i>Crataegus monogyna</i> )  | 10 | 200      |  | 2 | 2   | 2   | 2   |  |  | OM | < 10 | U  | 18  | <b>As T30</b>                                                                                                                                                                                                                                                                                                                                                                                                                        |
| T34 | Alder<br>( <i>Alnus glutinosa</i> )        | 14 | 350      |  | 3 | 3   | 6   | 3   |  |  | M  | 20+  | B2 | 55  | <b>As T30</b>                                                                                                                                                                                                                                                                                                                                                                                                                        |
| T35 | Ash<br>( <i>Fraxinus excelsior</i> )       | 17 | 570      |  | 6 | 7.9 | 8.6 | 7   |  |  | M  | 20+  | B2 | 147 | <b>As T30</b>                                                                                                                                                                                                                                                                                                                                                                                                                        |

|     |                                            |       |          |  |   |   |   |   |  |  |    |      |    |     |                                                                                                                                                                                                                                              |
|-----|--------------------------------------------|-------|----------|--|---|---|---|---|--|--|----|------|----|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T36 | Ash<br>( <i>Fraxinus excelsior</i> )       | 16    | 350      |  | 4 | 4 | 4 | 4 |  |  | EM | 20+  | B2 | 55  | As T30                                                                                                                                                                                                                                       |
| T37 | Sycamore<br>( <i>Acer pseudoplatanus</i> ) | 15    | 390      |  | 4 | 4 | 4 | 4 |  |  | EM | 20+  | B2 | 69  | As T30                                                                                                                                                                                                                                       |
| T38 | Alder<br>( <i>Alnus glutinosa</i> )        | 15    | 310      |  | 4 | 4 | 4 | 4 |  |  | EM | 20+  | B3 | 44  | As T30                                                                                                                                                                                                                                       |
| T39 | Ash<br>( <i>Fraxinus excelsior</i> )       | 20    | 600      |  | 6 | 6 | 6 | 6 |  |  | M  | < 10 | U  | 163 | <b>Condition:</b> Poor – Trees has suffered significant branch failure.<br><br><b>AIA:</b> Tree is in poor condition and has a limited life expectancy. It is recommended that this tree be removed for arboricultural reasons.              |
| A40 | Ash<br>( <i>Fraxinus excelsior</i> )       | 1 - 6 | 75 - 200 |  |   |   |   |   |  |  | Y  |      | C  | N/A | <b>Condition:</b> Fair<br><br><b>AIA:</b> Area of scrub ash, not significant in the amenity of the area and will be removed to facilitate the development of the site. Any loss of amenity could be replaced through new landscape planting, |

## Ultimate Heights of Main Species

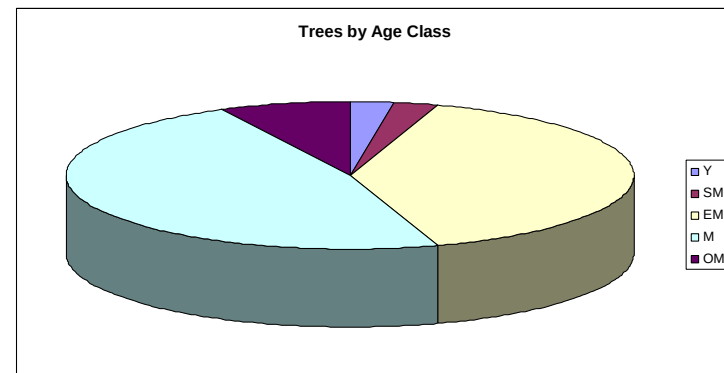
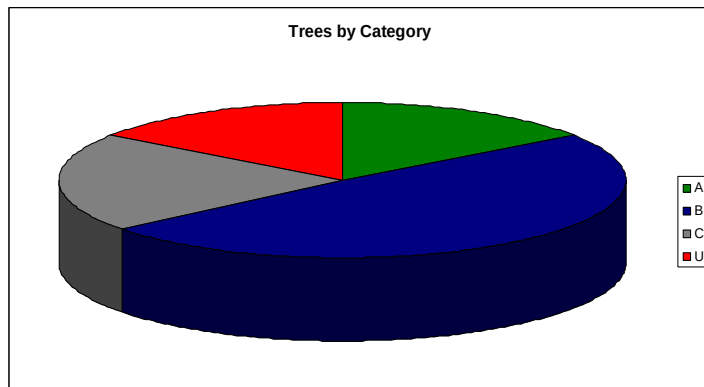
Oak 25

Ash 20

Beech 25

Sycamore 25

*Distribution of Trees by Category and Age Class*



Notes

**BS 5837: 2012** provides the framework through which tree can be categorised in terms of their health, amenity value and long-term viability for retention on a development site. There are four categories, A,B,C & U.

**Category A:** Trees of high quality and value in such a condition as to be able to make a substantial contribution (a minimum of 40 years)

- 1 Trees that are particularly good examples of their species, or essential components of groups or formal arboricultural features.
- 2 Trees, groups or woodlands that 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.
- 3 Trees, groups or woodlands of significant conservation, historical, commemorative or other value.

**Category B:** Trees of moderate quality and value in such a condition to make a significant contribution (a minimum of 20 years)

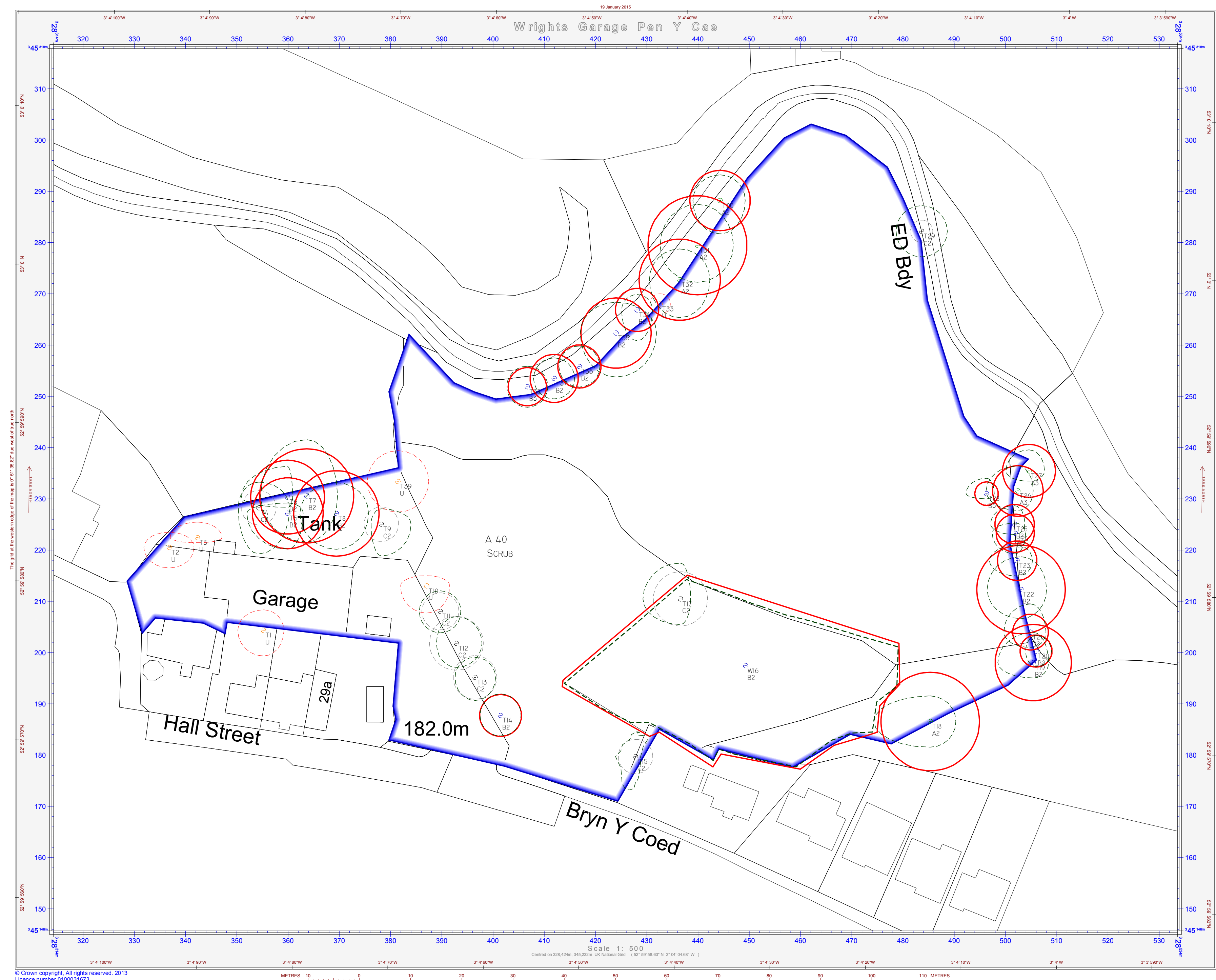
- 1 Trees that might be included in a higher category but are downgraded because of impaired condition.
- 2 Trees present in numbers, usually as groups of woodlands that form distinctive landscape features.
- 3 Trees with clearly identifiable conservation or other cultural benefits.

**Category C:** Trees of low quality and value currently in adequate condition to remain until new planting could be established. Trees in this category would not usually be retained if they would pose a significant constraint to development.

**Category U:** Trees in such a condition that their existing value would be lost within 10 years and which should, in the current context be removed for arboricultural reasons.

## Key

|                   |                                                                                                                                                                                                                                                                               |                   |                                        |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------|
| <b>Tag No</b>     | Identification number for tree                                                                                                                                                                                                                                                | <b>Species</b>    | Species of tree                        |
| <b>Top Height</b> | Estimated height of tree                                                                                                                                                                                                                                                      | <b>Stem Dia.</b>  | Diameter of stem at 1.5 metres         |
| <b>Stems</b>      | Number of stems                                                                                                                                                                                                                                                               | <b>N, E, S, W</b> | Crown spread at compass points         |
| <b>CC</b>         | Crown Clearance                                                                                                                                                                                                                                                               | <b>FSB</b>        | Direction of first significant branch  |
| <b>Rem. Cont</b>  | Remaining safe life expectancy in years                                                                                                                                                                                                                                       | <b>RPA</b>        | Root protection area in m <sup>2</sup> |
| <b>Cat.</b>       | BS Category (see above)                                                                                                                                                                                                                                                       | <b>AIA</b>        | Arboricultural Implication Assessment  |
| <b>Age</b>        | <b>Y -</b> Young Trees<br><b>SM</b> Semi Mature<br><b>EM</b> Early Mature<br><b>M</b> Mature<br><b>LM</b> Late Mature exceeds normal life expectancy for species<br><b>VET</b> Veteran Tree                                                                                   |                   |                                        |
| <b>Condition</b>  | <b>Good</b> Relatively free from defects and / or major pests and diseases<br><b>Fair</b> Some defects, which could be addressed through tree surgery or minor pests or early symptoms of diseases<br><b>Poor</b> Substantial defects or terminal decline<br><b>Dead</b> Dead |                   |                                        |



## Tree Constraints Plan

Wrights Garage  
Bryn Y Coed  
Pen Y Cae  
Wrexham

Legend

- 
- Tree Cat A  
 Tree Cat B  
 Tree Cat C  
 Tree Cat U  
 RPA  
 RPA Cat C  
 Canopy Spread  
 Canopy Spread Cat U Trees  
 Woodland  
 Site Boundary

Drawing No: WGP/TCP/01/15/01

Drawn By: S. Shields

Scale: 1:500 @ A2

Date: 19th January 2015

Revision:

Do not scale from this drawing all dimensions to be checked on site

Drawing is colour coded and a monochrome copy should not be relied upon

© Shields Arboricultural Consultancy

**T:01691 657189**

**M:07989 626923**

**Email:**[info@shieldsac.co.uk](mailto:info@shieldsac.co.uk)



