



# **ARBORICULTURAL REPORT** **& Impact Assessment** **to BS 5837:2012 at:**

***Company Shop,  
Wentworth Way Industrial Estate,  
Wentworth Way,  
Tankersley,  
Barnsley,  
S75 3DH***

Prepared for:  
***Heatons***

Date: *April 2024*

Reference: AWA5932



# Contents

|                                                                  |           |
|------------------------------------------------------------------|-----------|
| <b>1. Introduction.....</b>                                      | <b>3</b>  |
| 1.1 Instructions and Brief .....                                 | 3         |
| 1.2 Survey Details.....                                          | 3         |
| <b>2. The Site.....</b>                                          | <b>4</b>  |
| 2.1 Location and Description .....                               | 4         |
| <b>3. The Trees.....</b>                                         | <b>5</b>  |
| 3.1 Legal.....                                                   | 5         |
| 3.2 Tree Survey Results.....                                     | 6         |
| 3.3 Photographs .....                                            | 8         |
| <b>4. Arboricultural Impact Assessment.....</b>                  | <b>9</b>  |
| 4.1 Proposed New Development.....                                | 9         |
| 4.2 Direct Impacts .....                                         | 9         |
| 4.3 Indirect Impacts .....                                       | 10        |
| 4.4 Suitable Mitigation.....                                     | 11        |
| 4.5 Protection of the Retained Trees .....                       | 11        |
| <b>5. Signature .....</b>                                        | <b>12</b> |
| <b>Appendix 1: Authors Qualifications &amp; Experience .....</b> | <b>14</b> |
| <b>Appendix 2: Survey Methodology and Limitations .....</b>      | <b>15</b> |
| <b>Appendix 3: Explanation of Tree Descriptions .....</b>        | <b>16</b> |
| <b>Appendix 4: Tree Data .....</b>                               | <b>17</b> |
| <b>Appendix 5: Tree Constraints Plan .....</b>                   | <b>18</b> |
| <b>Appendix 6: Tree Impacts Plan .....</b>                       | <b>19</b> |

# 1. Introduction

## 1.1 Instructions and Brief

- 1.1.1 We have been instructed by Heatons to visit the site and prepare our findings in a report.
- 1.1.2 The report is required in accordance with BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*, to provide detailed, independent, arboricultural advice on the trees present, in the context of potential development.

## 1.2 Survey Details

- 1.2.1 The survey took place during April 2024.
- 1.2.2 The trees were surveyed visually from the ground using “Visual Tree Assessment” techniques and in accordance with the guiding principles of British Standard 5837:2012.
- 1.2.3 Any additional off-site trees that could impact a new development design have been included in the tree survey parameters.
- 1.2.4 The tree positions were plotted on an Ordnance Survey map base-layer using enhanced GPS technology (1-2m accuracy) and laser distance measurer.
- 1.2.5 This report has been prepared by Mr Adam Winson, Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, Principal and Director of AWA Tree Consultants Ltd.
- 1.2.6 The tree survey data collection was carried out by Lucy Garbutt, MSc, BSc (Hons) Biology, Arboriculturist at AWA Tree Consultants Ltd.
- 1.2.7 Full qualifications and experience are included within **Appendix 1**. Explanatory details regarding the survey methodology are included within **Appendix 2**. A full explanation of the tree data can be found at **Appendix 3**. Full details of all the trees surveyed are found in **Appendix 4**. For tree locations please refer to the Tree Constraints Plan at **Appendix 5** and for detail of the impacts of the new development refer to the Tree Impacts Plan at **Appendix 6**.

## 2. The Site

### 2.1 Location and Description

- 2.1.1 The site is located on Wentworth Industrial Estate in Tankersley, Barnsley.
- 2.1.2 The site comprises a commercial unit with associated parking and landscaping on an industrial estate. To the north, east, south and west lie further commercial units.
- 2.1.3 The approximate area of the survey is highlighted in the (2022 Google Earth) image below:



## 3. The Trees

### 3.1 Legal

- 3.1.1 The following advice is for guidance purposes only. Some trees are protected by legislation, and it is essential that the legal status of trees is established prior to carrying out works to them. Unauthorised work to protected trees could lead to prosecution, resulting in enforcement action such as fines or a criminal record. Tree Preservation Orders, Conservation Areas, Planning Conditions, Felling Licences or Restrictive Covenants legally protect many trees in the UK.
- 3.1.2 An online search was undertaken with Barnsley Metropolitan Borough Council on 08/04/24 to check whether any trees at the site are protected by a Tree Preservation Order or are located within a Conservation Area. As of this date no trees at the site are protected by a Tree Preservation Order or are within a Conservation Area.
- 3.1.3 Due to the large potential penalties for illegally carrying out work to protected trees, before authorising any tree works a further check should be made with the Local Planning Authority to confirm if any trees are covered by a Tree Preservation Order or are within a Conservation Area. If either applies, then statutory permission is required before any works can take place (unless such work is approved as part of full planning permission).
- 3.1.4 The Multi-Agency Geographical Information for the Countryside (MAGIC) website was used to search for areas of ancient woodlands listed on the Ancient Woodland (DEFRA 2021), and a check for catalogued Ancient and Veteran trees using the woodland trust ancient tree inventory (ATI) (Woodland Trust 2021).
- 3.1.5 It was confirmed that there are no designated ancient woodlands or veteran or ancient trees within the survey area.
- 3.1.6 Trees provide a wide range of habitats for many species, some of which are legally protected such as bats, nesting birds, badgers and dormice. It is essential that appropriate care is taken to ensure that this legislation is not contravened.
- 3.1.7 When appointing a tree surgeon, only properly qualified and experienced companies should be used, who have adequate Public Liability and Employer's Liability Insurance.
- 3.1.8 All tree work should be carried out according to British Standard 3998:2010 Tree Work - Recommendations.

## 3.2 Tree Survey Results

- 3.2.1 The tree survey revealed 34 items of woody vegetation, comprised of 30 individual trees and 4 tree groups.
- 3.2.2 Of the surveyed trees: 2 trees are retention category 'U', 11 trees are retention category 'B' and 21 trees, tree groups and hedges are retention category 'C' (explanatory details regarding the retention categories are included at Appendix 3).
- 3.2.3 Full details of the surveyed trees, tree groups and hedges are provided in the attached tree data schedule at Appendix 4. General comments are provided below:
- 3.2.4 The significant tree cover within the site consists mainly of semi to early mature planted trees on the peripheries of the site. These trees are a mix of species including Cherry, Red Oak, Pine, Birch, Apple, and Whitebeam and within these clusters is the occasional self-set Ash, Sycamore or Rowan tree.
- 3.2.5 Species diversity at the site is relatively good. The dominant species are Oak, Whitebeam and Cherry, with several Sycamore, Ash, Rowan and Birch and the occasional Apple, Poplar, and Pine.
- 3.2.6 The sites most significant trees are the retention category 'B' trees on site: Oaks T1, T2, T15, T16, T25 and T31, Whitebeams T3 and T32, Cherry T23 and T24 and Pine T30. T16 has a moderate snapped branch in its crown and T32 has a slight lean south, but other than those minor defects, these trees are in good condition and have good long-term prospects.
- 3.2.7 The cluster of trees to the north of the site adjacent to the car park is mainly made up of Cherry and Rowan trees, some of which are planted with the occasional self-set tree. These trees provide adequate screening from the adjacent roadside and are typically in good condition. The two larger retention category 'B' Cherry trees T23 and T24 are situated within this cluster. T23 and T24 are both early-mature trees with little visual defects.
- 3.2.8 There are two retention category 'U' trees on site which are advised to be removed regardless of any development works at the site due to their poor condition. These are T9 and T12. T9 is a semi-mature planted Cherry which has a large cavity at the base of the stem and a second moderate cavity at 1m. T9 also has a snapping branch to the south and moderate dieback within the crown. Ash T12 has moderate Ash dieback. As such, both trees have limited long term prospects and should be removed regardless of any development works at the site.
- 3.2.9 The remaining trees within the site are of particularly low value and should not pose any significant constraint on the development potential of the

site.

- 3.2.10 Many Ash trees in the wider region are being impacted by Chalara or Ash dieback disease. Once a tree is infected, the disease is usually fatal, either directly or indirectly. While the identified Ash trees may continue to provide landscape and wildlife benefits for some time, their long-term prospects are likely to be limited as a result of Ash dieback.
- 3.2.11 Some trees were found to have defects and require felling regardless of any new development at the site, this includes T9 and T12 (as detailed in Appendix 4).
- 3.2.12 Some trees were covered in dense Ivy or were inaccessible (as detailed in Appendix 4). In such cases measurements were estimated and the condition values are indicative only.
- 3.2.13 The tree Root Protection Area (RPA) for each tree has been plotted as a polygon centred on the base of the stem. Due to the presence of roads, structures, topography (and past tree management) the RPA is likely to be a simplified representation of the tree roots actual morphology and disposition. However, detailed modifications to the shape of the RPA would largely be based on conjecture and so have been avoided.
- 3.2.14 Some lower value tree, hedge and shrub groups do not have RPAs detailed on tree plans. The detailed extent and spread of these low value groups, in conjunction with the tree schedule, is sufficient to assess the associated potential constraints.

### 3.3 Photographs



Photo 1: T1 and T2 from north.



Photo 2: Cavity to stem of T9.



Photo 3: T15 and T16 from north east.

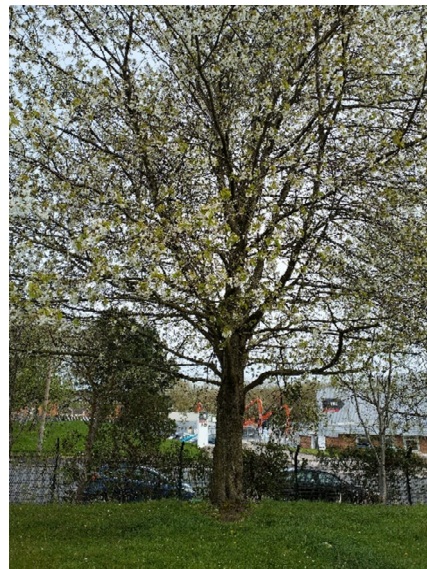


Photo 4: T23 from south west.



Photo 5: T30 from east.



Photo 6: T3, T32 and T33 from north east.

## 4. Arboricultural Impact Assessment

### 4.1 Proposed New Development

- 4.1.1 It is proposed to alter the existing parking and landscaping layout at the site to provide additional parking spaces and access to the existing warehouses. The development proposals have been provided by my client and inform this arboricultural impact assessment and the Tree Impacts Plan at Appendix 6.

### 4.2 Direct Impacts

- 4.2.1 From assessing the new development proposals, 6 trees and 1 tree groups will require removal to facilitate the development as they are situated in the footprint of the development or their retention and protection throughout the development is not suitable. 1 tree group will also require partial removal to facilitate the development.
- 4.2.2 The trees that require removal to facilitate the development are T8, T13, T24, T26, T29 and T30.
- 4.2.3 The tree group that requires removal to facilitate the development is G27.
- 4.2.4 Of the trees to be removed Apple T8, Ash T13, Rowan T26, Birch group G27 and Oak T29 are all retention category 'C' trees. T8, T13 and T26 all have defects which have limited their value and their long-term prospects. G27 and T29 are both semi-mature and have low amenity within the site. As such, due to the low value of the trees to be removed these removals will have only a negligible negative arboricultural impact.
- 4.2.5 Of the trees to be removed, Cherry T24 and Pine T30 are retention category 'B' trees. Cherry T24 and Pine T30 are both early-mature individuals which are in good condition with good long term prospects, and as such the removal of these trees will have some negative arboricultural impact in the short term. However, the retention of the other category 'B' trees on the site and the possibility for new planting within the site has the potential to mitigate for these removals.
- 4.2.6 1 tree group requires partial removal to facilitate the development – G22.
- 4.2.7 A small portion of G22 requires removal to facilitate the new proposed access road. G22 is a retention category 'C' group and the rest of G22 should remain unaffected by the works and as such the partial removal of this group should have little to no arboricultural impact.
- 4.2.8 2 trees are recommended for removal regardless of the development due to their poor condition and limited prospects – T9 and T12.

## 4.3 Indirect Impacts

- 4.3.1 The tree Root Protection Area (RPA) detailed on the Tree Plans at Appendices 5 and 6, has been used as a layout design tool, to inform on the area around a tree where the protection of the roots and soil structure is treated as a priority.
- 4.3.2 Potentially damaging activities are proposed in the vicinity of retained trees. The new parking and road layout encroaches close to and into the edge of the RPA of T25 and T31. Construction within the RPA can have negative impacts on tree roots. However, the encroachment is very minor, and as such, it is unlikely that significant roots will be within these areas and the retained tree should remain largely unaffected by the works, provided care is taken during construction.
- 4.3.3 New landscaping in the form of a footpath is proposed that encroaches into the RPA of T3. The construction of hard surfaces within the RPA can have negative impacts on tree roots. However, the potential negative impacts can often be overcome or minimised by employing a 'no-dig' type construction methods with a porous final surface.
- 4.3.4 Potentially damaging activities are proposed in the vicinity of retained trees. There is existing fencing within the RPA of T32 which is to be altered with the addition of a new gate. Any encroachment into the trees' RPAs should not significantly adversely impact on the health or future condition of the trees, provided posts and panels type footings are used as opposed to strip footings, with the holes for any required new posts dug by hand, avoiding significant tree roots where possible. The retained tree should remain largely unaffected by these works provided care is taken during construction.
- 4.3.5 The design of the new development has considered the trees crown position in relation to the development. Some shade from trees may be beneficial. In particular, deciduous trees give shade in summer but allow access to sunlight in winter. However, the design proposals avoid excessive shading, and give adequate provision for future tree growth.
- 4.3.6 All the retained trees have been assessed as suitable for retention in terms of BS5837 (2012) section 5 "Proximity of structures to trees." The retained trees will not cause unreasonable inconvenience or nuisance issues, leading to associated pressures for felling or excessive pruning. The layout allows sufficient space to enable the retained trees to grow to maturity without significantly adversely affecting the amenity of the new development
- 4.3.7 The buildability of the proposed development has been assessed in terms of access, adequate working space and provision for the storage of

materials, including topsoil, in relation to the trees.

#### **4.4 Suitable Mitigation**

- 4.4.1 The development of the site provides an excellent opportunity to undertake new tree planting throughout the site as part of a soft landscaping scheme. As such, suitable new tree planting has the potential to mitigate for the required tree removals and, in the longer term, has the potential to improve the sites tree cover.

#### **4.5 Protection of the Retained Trees**

- 4.5.1 The retained trees will require protection by fencing in accordance with BS 5837: 2012, during the development phase.
- 4.5.2 If required by the Local Planning Authority, an associated Arboricultural Method Statement, detailing protective fencing specifications and construction methods close to the retained trees can be provided.

## 5. Signature

I trust this report provides all the required information.

Signed



.....

**Adam Winson**, *Chartered Arboriculturist, MSc, BSc (Hons), MICFor, ACIEEM*

**26<sup>th</sup> April 2024**

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Chartered Foresters  
**Registered Consultant**

# Appendices

**Appendix 1: Authors Qualifications and Experience**

**Appendix 2: Survey Methodology and Limitations**

**Appendix 3: Explanation of Tree Descriptions**

**Appendix 4: Tree Data**

**Appendix 5: Tree Constraints Plan**

**Appendix 6: Tree Impacts Plan**

## Appendix 1: Authors Qualifications & Experience

### **Adam Winson, Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MARborA, ACIEEM, QTRA Registered**

Adam is the company Director and Principal Consultant. He has a mix of the highest-level academic qualifications and relevant work experience. He has worked within the tree care profession for over 20 years and was awarded an MSc in Arboriculture and Urban Forestry, with distinction. Adam is a Chartered Arboriculturist and a Registered Consultant with the Institute of Chartered Foresters, a Professional Member of the Arboricultural Association and he has original research published by the UK Forestry Commission. His work ranges from individual expert tree inspections to managing trees on major infrastructure projects. His work often involves trees with preservation orders or litigation, and he has appeared as a tree expert, at planning appeal hearings up to the crown court. Adam also regularly undertakes locum Tree Officer work for several Local Planning Authorities.

### **James Brown, BSc (Hons) Arboriculture, MARborA, PTI (Lantra), QTRA Registered**

James is a highly experienced and qualified Arboricultural Consultant. He has a BSc (Hons) in Arboriculture, attaining first class honours, as well as being awarded the Institute of Chartered Foresters student award. He is a Professional Member of the Arboricultural Association, an Associate of the Institute of Chartered Foresters, and he is working towards becoming a Chartered Arboriculturist. James joined AWA in 2016, he has many years' experience as an Arboricultural Consultant, he previously worked in Europe's largest container tree nursery and he has experience of local authority Tree Officer work.

### **James Godfrey, BA (Hons), FdSc Arboriculture and Tree Management, TechArborA, PTI (Lantra), QTRA Registered**

James has had extensive arboricultural experience working as an arborist within the public and private sector. While working at AWA, James completed his FdSc in Arboriculture and Tree Management, graduating with a distinction and was also awarded for achieving the highest overall mark in his year. James has used his arboricultural knowledge to inform and carry out accurate tree surveys and produce detailed reports that aim to balance appropriate tree retention with the requirements of landowners.

### **Joe Thomas, MSci Biology, Award L4 Arboriculture, TechArborA, PTI (Lantra), QTRA Registered**

Joe achieved a first class degree in Biology with an integrated Masters (MSci) from the University of Sheffield. Additionally, he has a Level 4 Award in Arboriculture. Joe joined AWA after an Urban Forestry role with the Sheffield and Rotherham Wildlife Trust and Sheffield City Council, where he gained a variety of experience in different aspects of the arboriculture sector.

### **Lucy Garbutt, MSc Animal Behaviour, BSc (Hons) Biology, PTI (Lantra), CIEEM membership**

Lucy graduated with a masters degree in Animal Behaviour from the UK's highest rated university, St Andrews of Scotland, immediately following the completion of her BSc degree in Biology from Lancaster University. Lucy has experience in botany and plant science and moved into arboriculture after previous experience of protected species and botanical surveys with a large environmental consulting company.

### **Sophie Beckerman, BA (Hons), Dip Arboriculture Level 4, PTI (Lantra), TechArborA**

Sophie has more than 10 years' experience as an arborist, working for a variety of private companies as well as undertaking tree management with Sheffield City Council Ranger Service and The Wildlife Trust. Her expertise in arboriculture is demonstrated in the practical NPTC qualifications gained, and her excellent knowledge is reflected in the L4 diploma in Arboriculture, which she completed while working. Her roles as a climbing arborist and team leader included estimating for jobs and project management, supervising tree contracting teams - ensuring that work is carried out safely and efficiently and that health and safety standards are adhered to, and risk assessments are carried out.

## Appendix 2: Survey Methodology and Limitations

The survey was undertaken in accordance with British Standard 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*. The trees were assessed objectively and without reference to any proposed site layout. The trees were surveyed from the ground using 'Visual Tree Assessment' (VTA) methodology. VTA is appropriate and is endorsed by industry guidance. It is used by arboriculturists to evaluate the structural integrity of a tree, relying on observation of trees biomechanical and physiological features. Measurements are obtained using a diameter tape, clinometer, laser distometer and loggers tape. Where this is not practical measurements are estimated. Tree groups have been identified in instances as defined in BS 5837:2012. Shrubs and insignificant trees may have been omitted from the survey.

This report represents a BS 5837:2012 tree survey and should not be accepted as a detailed tree safety inspection report; however, tree related hazards are recorded and commented upon where observed, yet no guarantee can be given as to the absolute safety or otherwise of any individual tree. All recommended tree work must be to BS 3998:2010 - *'Tree Work: Recommendations'*.

The findings and recommendations contained within this report are valid for a period of twelve months from the date of survey. The author shall not be responsible for events which happen after this time due to factors which were not apparent at the time, and the acceptance of this report constitutes an agreement with these guidelines and terms.

## Appendix 3: Explanation of Tree Descriptions

**HEIGHT** of the tree is measured from the stem base in metres. Where the ground has a significant slope the higher ground is selected.

**CROWN HEIGHT** is an indication of the average height at which the crown begins.

**STEM DIAMETER** is measured at 1.5 metres above (higher) ground level. Where the tree is multi-stemmed at this point; the diameter is measured close to ground level or else a combined stem diameter is calculated.

**CROWN SPREAD** is measured from the centre of the stem base to the tips of the branches in all four cardinal points.

**AGE CLASS** of the tree is described as young, semi-mature, early-mature, mature, or over-mature.

**PHYSIOLOGICAL CONDITION** is classed as good, fair, poor, or dead. This is an indication of the health of the tree and takes into account vigour, presence of disease and dieback.

**STRUCTURAL CONDITION** is classed as good, fair or poor. This is an indication of the structural integrity of the tree and takes into account significant wounds, decay and quality of branch junctions.

**LIFE EXPECTANCY** is classed as; less than 10 years, 10-20 years, 20-40 years, or more than 40 years. This is an indication of the number of years before removal of the tree is likely to be required.

### Retention Categories

**A (marked in green on Appendix 5) = retention most desirable.** These trees are of very high quality and value with a good life expectancy.

**B (marked in blue on Appendix 5) = retention desirable.** These trees are of good quality and value with a significant life expectancy.

**C (marked in grey on Appendix 5) = trees which could be retained.** These trees are of low or average quality and value, and are in adequate condition to remain until new planting could be established.

**U (marked in red on Appendix 5) = trees unsuitable for retention.** These trees are in such a condition that any existing value would be lost within 10 years.

|         | Tree Species |              |              | Measurements |       |                    | Crown (m) |              |   |   | Tree Condition |   |                            |                                                                        |                                                   |                   |               | Value      |                 | Management |          |                                                  |
|---------|--------------|--------------|--------------|--------------|-------|--------------------|-----------|--------------|---|---|----------------|---|----------------------------|------------------------------------------------------------------------|---------------------------------------------------|-------------------|---------------|------------|-----------------|------------|----------|--------------------------------------------------|
| Tree ID | Common Name  | Latin Name   | Maturity     | Height (m)   | Stems | Stem Diameter (mm) | Estimated | Crown height | N | E | S              | W | Roots                      | Stem                                                                   | Crown                                             | Comments          | Physiological | Structural | Life Expectancy | Amenity    | Category | Works                                            |
| T1      | Oak          | Qercus robur | Early-mature | 14           | 1     | 450                | Yes       | 2            | 6 | 6 | 7              | 3 | Limited access around base | Single stemmed. Vertical. Epicormic growths. Old pruning wounds        | Old pruning wounds. Minor dieback. Minor deadwood |                   | Good          | Good       | >40 yrs         | Moderate   | B        | No works required to facilitate the development. |
| T2      | Oak          | Qercus robur | Early-mature | 14           | 1     | 450                | Yes       | 2            | 3 | 5 | 6              | 6 | Limited access around base | Single stemmed. Vertical. Epicormic growths. Old pruning wounds        | Old pruning wounds. Minor dieback. Minor deadwood |                   | Good          | Good       | >40 yrs         | Moderate   | B        | No works required to facilitate the development. |
| T3      | Whitebeam    | Sorbus aria  | Early-mature | 13           | 1     | 400                | No        | 2            | 4 | 4 | 5              | 5 | No visual defects          | Single stemmed. Vertical. Old pruning wounds. Epicormic growths        | Old pruning wounds. Minor deadwood                |                   | Good          | Good       | >40 yrs         | Low        | B        | No works required to facilitate the development. |
| T4      | Cherry       | Prunus avium | Semi-mature  | 4            | 1     | 170                | No        | 2            | 4 | 2 | 4              | 2 | No visual defects          | Single stemmed. Vertical. Epicormic growths. Old pruning wounds. Stubs | Old pruning wounds. Minor deadwood. Minor dieback | Pruned into shape | Good          | Good       | >40 yrs         | Low        | C        | No works required to facilitate the development. |
| T5      | Cherry       | Prunus avium | Semi-mature  | 4            | 1     | 150                | No        | 2            | 2 | 2 | 2              | 3 | No visual defects          | Single stemmed. Vertical. Old pruning wounds. Epicormic growths. Stubs | Old pruning wounds. Minor deadwood                | Pruned into shape | Good          | Good       | >40 yrs         | Low        | C        | No works required to facilitate the development. |

| Tree Species |             |              | Measurements |            |       |                    | Crown (m) |              |   |   | Tree Condition |     |                   |                                                                                                          |                                                                |                                                                             |               | Value      |                 | Management |          |                                                    |
|--------------|-------------|--------------|--------------|------------|-------|--------------------|-----------|--------------|---|---|----------------|-----|-------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|-----------------------------------------------------------------------------|---------------|------------|-----------------|------------|----------|----------------------------------------------------|
| Tree ID      | Common Name | Latin Name   | Maturity     | Height (m) | Stems | Stem Diameter (mm) | Estimated | Crown height | N | E | S              | W   | Roots             | Stem                                                                                                     | Crown                                                          | Comments                                                                    | Physiological | Structural | Life Expectancy | Amenity    | Category | Works                                              |
|              |             |              |              |            |       |                    |           |              |   |   |                |     |                   |                                                                                                          |                                                                |                                                                             |               |            |                 |            |          |                                                    |
|              |             |              |              |            |       |                    |           |              |   |   |                |     |                   |                                                                                                          |                                                                |                                                                             |               |            |                 |            |          |                                                    |
|              |             |              |              |            |       |                    |           |              |   |   |                |     |                   |                                                                                                          |                                                                |                                                                             |               |            |                 |            |          |                                                    |
|              |             |              |              |            |       |                    |           |              |   |   |                |     |                   |                                                                                                          |                                                                |                                                                             |               |            |                 |            |          |                                                    |
|              |             |              |              |            |       |                    |           |              |   |   |                |     |                   |                                                                                                          |                                                                |                                                                             |               |            |                 |            |          |                                                    |
| T6           | Cherry      | Prunus avium | Semi-mature  | 5          | 1     | 130                | No        | 2            | 4 | 3 | 2              | 3   | No visual defects | Single stemmed. Slight lean. Old pruning wounds. Epicormic growths                                       | Old pruning wounds. Minor deadwood. Moderate dieback           | Slight lean south east                                                      | Fair          | Fair       | 10 to 20 yrs    | Low        | C        | No works required to facilitate the development.   |
| T7           | Cherry      | Prunus avium | Semi-mature  | 4          | 1     | 130                | No        | 2            | 2 | 3 | 3              | 4   | No visual defects | Single stemmed. Slight lean. Stubs. Old pruning wounds. Epicormic growths                                | Old pruning wounds. Minor deadwood. Moderate dieback           | Slight lean east                                                            | Fair          | Fair       | 10 to 20 yrs    | Low        | C        | No works required to facilitate the development.   |
| T8           | Apple       | Malus sp.    | Semi-mature  | 5          | 1     | 200                | No        | 2            | 3 | 3 | 3              | 5   | No visual defects | Single stemmed. Slight lean. Old pruning wounds. Epicormic growths. Tight union. Partially included bark | Old pruning wounds. Minor dieback. Minor deadwood. Cavities    | Slight lean north west. Lots of epicormics growing around the base and stem | Fair          | Fair       | 10 to 20 yrs    | Low        | C        | Removal required to facilitate the development.    |
| T9           | Cherry      | Prunus avium | Semi-mature  | 5          | 1     | 130                | No        | 2            | 5 | 2 | 3              | 3.5 | No visual defects | Single stemmed. Vertical. Stubs. Bark damage. Partially included bark. Tight union. Major cavities       | Cavities. Minor deadwood. Moderate dieback. Old pruning wounds | Large cavity at base of stem and cavity at 1m. Snapping branch to south.    | Poor          | Poor       | <10 yrs         | Low        | U        | Removal recommended regardless of the development. |
| T10          | Cherry      | Prunus avium | Semi-mature  | 6          | 1     | 200                | No        | 2            | 3 | 3 | 3.5            | 4   | No visual defects | Single stemmed. Vertical. Old pruning wounds. Epicormic growths. Stubs                                   | Old pruning wounds. Minor dieback. Minor deadwood              |                                                                             | Good          | Good       | >40 yrs         | Low        | C        | No works required to facilitate the development.   |

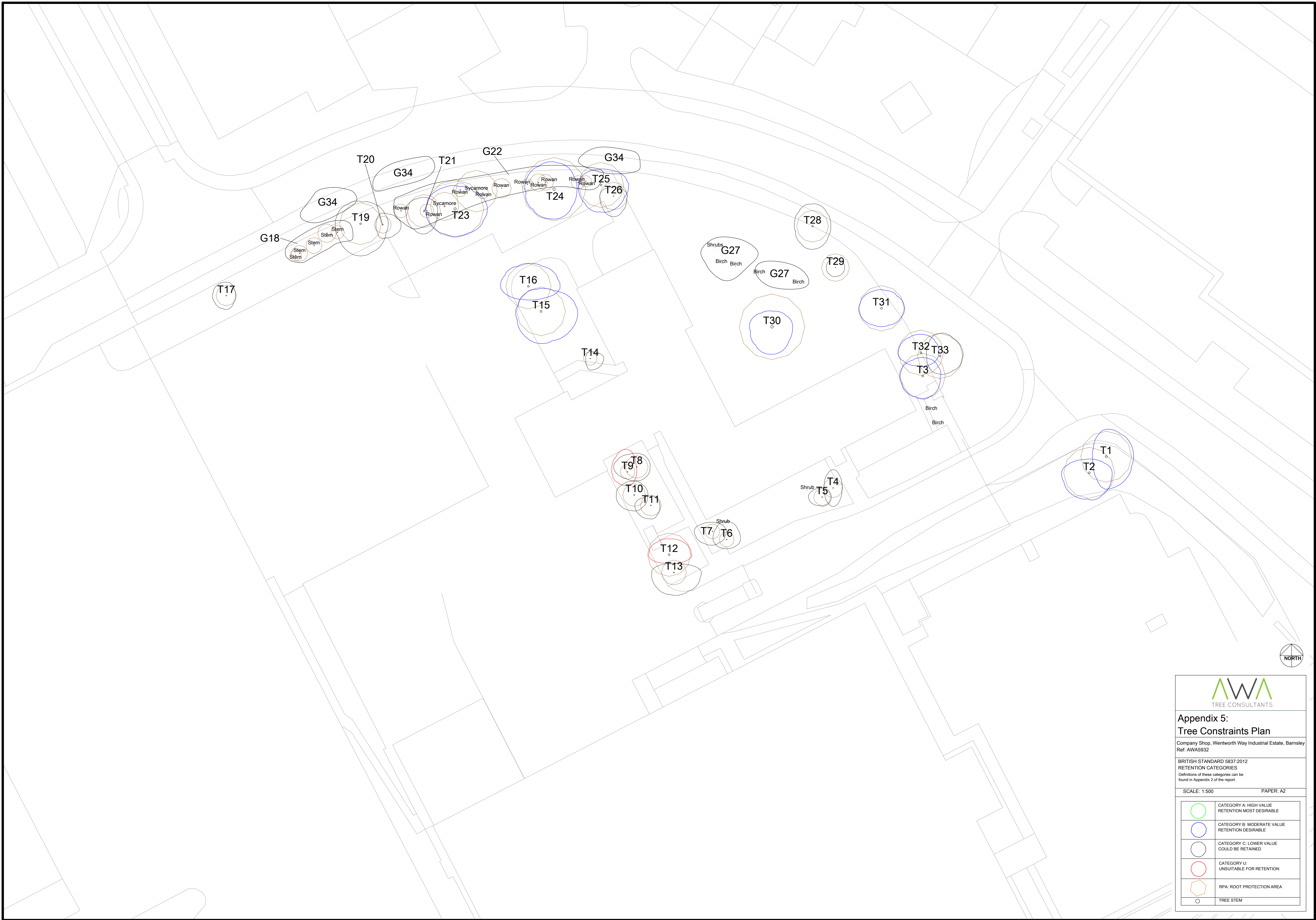
|         | Tree Species |                     |              | Measurements |       |                    |           | Crown (m)    |     |   |     |     | Tree Condition             |                                                                              |                                                                              |                                                            |               |            |                 | Value    |          | Management                                         |
|---------|--------------|---------------------|--------------|--------------|-------|--------------------|-----------|--------------|-----|---|-----|-----|----------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------|---------------|------------|-----------------|----------|----------|----------------------------------------------------|
| Tree ID | Common Name  | Latin Name          | Maturity     | Height (m)   | Stems | Stem Diameter (mm) | Estimated | Crown height | N   | E | S   | W   | Roots                      | Stem                                                                         | Crown                                                                        | Comments                                                   | Physiological | Structural | Life Expectancy | Amenity  | Category | Works                                              |
|         |              |                     |              |              |       |                    |           |              |     |   |     |     |                            |                                                                              |                                                                              |                                                            |               |            |                 |          |          |                                                    |
| T11     | Sycamore     | Acer pseudoplatanus | Semi-mature  | 6            | 2     | 70, 170            | No        | 2            | 2   | 2 | 3   | 3.5 | No visual defects          | Twin stemmed at 0.5m. Vertical. Old pruning wounds. Stubs                    | Old pruning wounds. Minor deadwood. Minor dieback                            |                                                            | Good          | Good       | >40 yrs         | Low      | C        | No works required to facilitate the development.   |
| T12     | Ash          | Fraxinus excelsior  | Semi-mature  | 14           | 2     | 210, 320           | No        | 2            | 3.5 | 5 | 2   | 4.5 | No visual defects          | Twin stemmed at 0.5m. Vertical. Epicormic growths. Old pruning wounds. Stubs | Moderate dieback. Minor deadwood                                             | Moderate Ash dieback                                       | Poor          | Fair       | <10 yrs         | Low      | U        | Removal recommended regardless of the development. |
| T13     | Ash          | Fraxinus excelsior  | Semi-mature  | 11           | 1     | 220                | No        | 2            | 2   | 6 | 5   | 5   | No visual defects          | Single stemmed. Vertical. Epicormic growths. Old pruning wounds              | Old pruning wounds. Minor dieback. Minor deadwood                            |                                                            | Fair          | Good       | 20 to 40 yrs    | Low      | C        | Removal required to facilitate the development.    |
| T14     | Rowan        | Sorbus aucuparia    | Semi-mature  | 7            | 1     | 120                | No        | 2            | 1.5 | 3 | 2.5 | 1   | Limited access around base | Single stemmed. Slight lean. Old pruning wounds. Epicormic growths           | Old pruning wounds. Minor dieback. Minor deadwood                            | Slight lean south east. Hedge at base obscured inspection. | Good          | Good       | >40 yrs         | Low      | C        | No works required to facilitate the development.   |
| T15     | Red Oak      | Quercus rubra       | Early-mature | 16           | 1     | 430                | No        | 2            | 5   | 8 | 7   | 5.5 | Girdled roots              | Single stemmed. Vertical. Old pruning wounds. Epicormic growths              | Old pruning wounds. Minor dieback. Minor deadwood                            |                                                            | Good          | Good       | >40 yrs         | Moderate | B        | No works required to facilitate the development.   |
| T16     | Red Oak      | Quercus rubra       | Early-mature | 15           | 1     | 400                | No        | 3            | 5   | 7 | 3   | 6   | No visual defects          | Single stemmed. Vertical. Old pruning wounds. Epicormic growths              | Old pruning wounds. Minor dieback. Minor deadwood. Snapped /hanging branches | Moderate snapped branch in northern crown                  | Good          | Good       | >40 yrs         | Moderate | B        | No works required to facilitate the development.   |

|         | Tree Species       |                      |              | Measurements |       |                    | Crown (m) |              |           |   |   | Tree Condition |                                                                                                                                                                                                |                                                                                                                    |                                                   |                                                            |               |            | Value           |         | Management |                                                         |
|---------|--------------------|----------------------|--------------|--------------|-------|--------------------|-----------|--------------|-----------|---|---|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------|---------------|------------|-----------------|---------|------------|---------------------------------------------------------|
| Tree ID | Common Name        | Latin Name           | Maturity     | Height (m)   | Stems | Stem Diameter (mm) | Estimated | Crown height | N         | E | S | W              | Roots                                                                                                                                                                                          | Stem                                                                                                               | Crown                                             | Comments                                                   | Physiological | Structural | Life Expectancy | Amenity | Category   | Works                                                   |
| T17     | Ash                | Fraxinus excelsior   | Semi-mature  | 7            | 2     | 100, 150           | Yes       | 2            | 3         | 2 | 3 | 3              | Limited access around base                                                                                                                                                                     | Twin stemmed at base. Vertical. Stubs. Ivy covered                                                                 | Minor dieback. Minor deadwood                     | Heavily ivy covered at base preventing detailed inspection | Fair          | Fair       | 20 to 40 yrs    | Low     | C          | No works required to facilitate the development.        |
| G18     | Cherry             | Prunus avium         | Semi-mature  | 6            | 7     | 100                | Yes       | 2            | See plan. |   |   |                | Self set Cherry group running along embankment. Fence adjacent to the north. Stems picked up and plotted where possible.                                                                       |                                                                                                                    |                                                   |                                                            | Good          | Good       | >40 yrs         | Low     | C          | No works required to facilitate the development.        |
| T19     | Cherry             | Prunus avium         | Early-mature | 14           | 1     | 370                | Yes       | 3            | 5         | 6 | 7 | 5.5            | No visual defects                                                                                                                                                                              | Single stemmed. Vertical. Old pruning wounds. Epicormic growths                                                    | Old pruning wounds. Minor dieback. Minor deadwood |                                                            | Good          | Good       | >40 yrs         | Low     | C          | No works required to facilitate the development.        |
| T20     | Rowan              | Sorbus aucuparia     | Semi-mature  | 6            | 1     | 150                | No        | 2            | 2.5       | 4 | 3 | 1.5            | No visual defects                                                                                                                                                                              | Single stemmed. Slight lean. Old pruning wounds. Epicormic growths                                                 | Old pruning wounds. Minor dieback. Minor deadwood | Slight lean south east                                     | Good          | Good       | 20 to 40 yrs    | Low     | C          | No works required to facilitate the development.        |
| T21     | Sycamore           | Acer pseudoplatanus  | Semi-mature  | 14           | 2     | 250, 150           | Yes       | 2            | 3         | 3 | 5 | 4              | Limited access around base                                                                                                                                                                     | Twin stemmed at 0.5m. Vertical. Old pruning wounds. Epicormic growths. Stubs. Cup-like union collecting dirt/water | Old pruning wounds. Minor dieback. Minor deadwood |                                                            | Good          | Good       | >40 yrs         | Low     | C          | No works required to facilitate the development.        |
| G22     | Rowan and Sycamore | Sorbus sp., Acer sp. | Semi-mature  | 10           | 10    | 100                | Yes       | 2            | See plan. |   |   |                | Mixed species group of mostly Rowan with occasional Sycamore, Likely self set. Running along embankment with fence directly adjacent to the north. Stems picked up and plotted where possible. |                                                                                                                    |                                                   |                                                            | Good          | Good       | >40 yrs         | Low     | C          | Partial removal required to facilitate the development. |

|         | Tree Species |                  |              | Measurements |       |                    | Crown (m) |              |           |   |     | Tree Condition |                                                                                                        |                                                                                                                 |                                                   |          |               |            | Value           |         | Management |                                                  |
|---------|--------------|------------------|--------------|--------------|-------|--------------------|-----------|--------------|-----------|---|-----|----------------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------|---------------|------------|-----------------|---------|------------|--------------------------------------------------|
| Tree ID | Common Name  | Latin Name       | Maturity     | Height (m)   | Stems | Stem Diameter (mm) | Estimated | Crown height | N         | E | S   | W              | Roots                                                                                                  | Stem                                                                                                            | Crown                                             | Comments | Physiological | Structural | Life Expectancy | Amenity | Category   | Works                                            |
|         |              |                  |              |              |       |                    |           |              |           |   |     |                |                                                                                                        |                                                                                                                 |                                                   |          |               |            |                 |         |            |                                                  |
|         |              |                  |              |              |       |                    |           |              |           |   |     |                |                                                                                                        |                                                                                                                 |                                                   |          |               |            |                 |         |            |                                                  |
|         |              |                  |              |              |       |                    |           |              |           |   |     |                |                                                                                                        |                                                                                                                 |                                                   |          |               |            |                 |         |            |                                                  |
|         |              |                  |              |              |       |                    |           |              |           |   |     |                |                                                                                                        |                                                                                                                 |                                                   |          |               |            |                 |         |            |                                                  |
|         |              |                  |              |              |       |                    |           |              |           |   |     |                |                                                                                                        |                                                                                                                 |                                                   |          |               |            |                 |         |            |                                                  |
| T23     | Cherry       | Prunus avium     | Early-mature | 15           | 1     | 510                | No        | 2            | 5         | 7 | 6   | 6.5            | Exposed roots. Girdled roots                                                                           | Single stemmed. Vertical. Epicormic growths. Old pruning wounds. Stubs                                          | Old pruning wounds. Minor dieback. Minor deadwood |          | Good          | Good       | >40 yrs         | Low     | B          | No works required to facilitate the development. |
| T24     | Cherry       | Prunus avium     | Early-mature | 15           | 1     | 560                | No        | 2            | 6         | 5 | 6.5 | 6.5            | Exposed roots. Girdled roots                                                                           | Single stemmed. Vertical. Old pruning wounds. Epicormic growths. Stubs                                          | Old pruning wounds. Minor deadwood                |          | Good          | Good       | >40 yrs         | Low     | B          | Removal required to facilitate the development.  |
| T25     | Red Oak      | Quercus rubra    | Early-mature | 16           | 1     | 400                | Yes       | 3            | 3.5       | 6 | 6   | 5              | Limited access around base                                                                             | Single stemmed. Vertical. Old pruning wounds. Epicormic growths                                                 | Old pruning wounds. Minor dieback. Minor deadwood |          | Good          | Good       | >40 yrs         | Low     | B          | No works required to facilitate the development. |
| T26     | Rowan        | Sorbus aucuparia | Semi-mature  | 7            | 6     | 100                | No        | 1            | 2         | 3 | 4.5 | 3              | No visual defects                                                                                      | Multiple stemmed at base. Vertical. Epicormic growths. Old pruning wounds. Tight union. Partially included bark | Old pruning wounds. Minor dieback. Minor deadwood |          | Good          | Good       | >40 yrs         | Low     | C          | Removal required to facilitate the development.  |
| G27     | Silver Birch | Betula pendula   | Semi-mature  | 13           | 6     | 100                | Yes       | 2            | See plan. |   |     |                | Group of planted Silver Birch with shrubs at base obscuring access and preventing detailed inspection. |                                                                                                                 |                                                   |          | Good          | Good       | >40 yrs         | Low     | C          | Removal required to facilitate the development.  |

| Tree Species |             |            |               | Measurements |       |                    | Crown (m) |              |     |     | Tree Condition |   |       |                            |                                                                           |                                                   |                                              | Value      |                 | Management |          |       |                                                  |
|--------------|-------------|------------|---------------|--------------|-------|--------------------|-----------|--------------|-----|-----|----------------|---|-------|----------------------------|---------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------------|------------|-----------------|------------|----------|-------|--------------------------------------------------|
| Tree ID      | Common Name | Latin Name | Maturity      | Height (m)   | Stems | Stem Diameter (mm) | Estimated | Crown height | N   | E   | S              | W | Roots | Stem                       | Crown                                                                     | Comments                                          | Physiological                                | Structural | Life Expectancy | Amenity    | Category | Works |                                                  |
|              |             |            |               |              |       |                    |           |              |     |     |                |   |       |                            |                                                                           |                                                   |                                              |            |                 |            |          |       |                                                  |
|              | T28         | Poplar     | Populus sp.   | Early-mature | 16    | 1                  | 280       | Yes          | 0.5 | 5   | 4              | 5 | 4     | Limited access around base | Single stemmed. Vertical. Epicormic growths. Old pruning wounds           | Old pruning wounds. Minor deadwood                | Part of stem is embedded in boundary fencing | Good       | Good            | >40 yrs    | Low      | C     | No works required to facilitate the development. |
|              | T29         | Red Oak    | Quercus rubra | Young        | 5     | 6                  | 100       | No           | 1   | 2   | 2              | 2 | 2     | No visual defects          | Multiple stemmed at base. Vertical. Epicormic growths. Old pruning wounds | Old pruning wounds. Minor dieback. Minor deadwood |                                              | Good       | Good            | >40 yrs    | Low      | C     | Removal required to facilitate the development.  |
|              | T30         | Black Pine | Pinus nigra   | Early-mature | 16    | 1                  | 580       | No           | 1   | 3.5 | 4.5            | 6 | 5     | No visual defects          | Single stemmed. Vertical. Old pruning wounds. Epicormic growths           | Old pruning wounds. Minor dieback. Minor deadwood |                                              | Good       | Good            | >40 yrs    | Low      | B     | Removal required to facilitate the development.  |
|              | T31         | Red Oak    | Quercus rubra | Early-mature | 14    | 1                  | 400       | No           | 2   | 4   | 5              | 4 | 5     | No visual defects          | Single stemmed. Vertical. Old pruning wounds. Epicormic growths           | Old pruning wounds. Minor dieback. Minor deadwood |                                              | Good       | Good            | >40 yrs    | Low      | B     | No works required to facilitate the development. |
|              | T32         | Whitebeam  | Sorbus aria   | Early-mature | 13    | 1                  | 400       | No           | 2   | 4   | 4              | 3 | 5     | No visual defects          | Single stemmed. Slight lean. Old pruning wounds. Epicormic growths        | Minor deadwood. Old pruning wounds                | Slight lean south                            | Good       | Good            | >40 yrs    | Low      | B     | No works required to facilitate the development. |

|         | Tree Species |                |              | Measurements |       |                    | Crown (m) |              |           |   | Tree Condition |   |                                                                                                                                                                                                                                   |                                                                    |                                                      |                                              |               | Value      |                 | Management |          |                                                  |
|---------|--------------|----------------|--------------|--------------|-------|--------------------|-----------|--------------|-----------|---|----------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------|----------------------------------------------|---------------|------------|-----------------|------------|----------|--------------------------------------------------|
| Tree ID | Common Name  | Latin Name     | Maturity     | Height (m)   | Stems | Stem Diameter (mm) | Estimated | Crown height | N         | E | S              | W | Roots                                                                                                                                                                                                                             | Stem                                                               | Crown                                                | Comments                                     | Physiological | Structural | Life Expectancy | Amenity    | Category | Works                                            |
|         |              |                |              |              |       |                    |           |              |           |   |                |   |                                                                                                                                                                                                                                   |                                                                    |                                                      |                                              |               |            |                 |            |          |                                                  |
| T33     | Whitebeam    | Sorbus aria    | Early-mature | 14           | 1     | 400                | No        | 2            | 5         | 5 | 4              | 3 | No visual defects                                                                                                                                                                                                                 | Single stemmed. Slight lean. Old pruning wounds. Epicormic growths | Old pruning wounds. Minor deadwood. Moderate dieback | Slight lean east. Moderate dieback in crown. | Fair          | Fair       | 10 to 20 yrs    | Low        | C        | No works required to facilitate the development. |
| G34     | Silver Birch | Betula pendula | Early-mature | 15           | 10    | 250                | Yes       | 2            | See plan. |   |                |   | Group of likely planted Silver Birch on roadside verge. Fence runs directly adjacent to south and road runs directly adjacent to north. Some stems and limbs have been removed leaving occasional pruning wounds with some decay. |                                                                    |                                                      |                                              | Good          | Good       | >40 yrs         | Low        | C        | No works required to facilitate the development. |





TREE CONSULTANTS

**Appendix 5:**  
**Tree Constraints Plan**

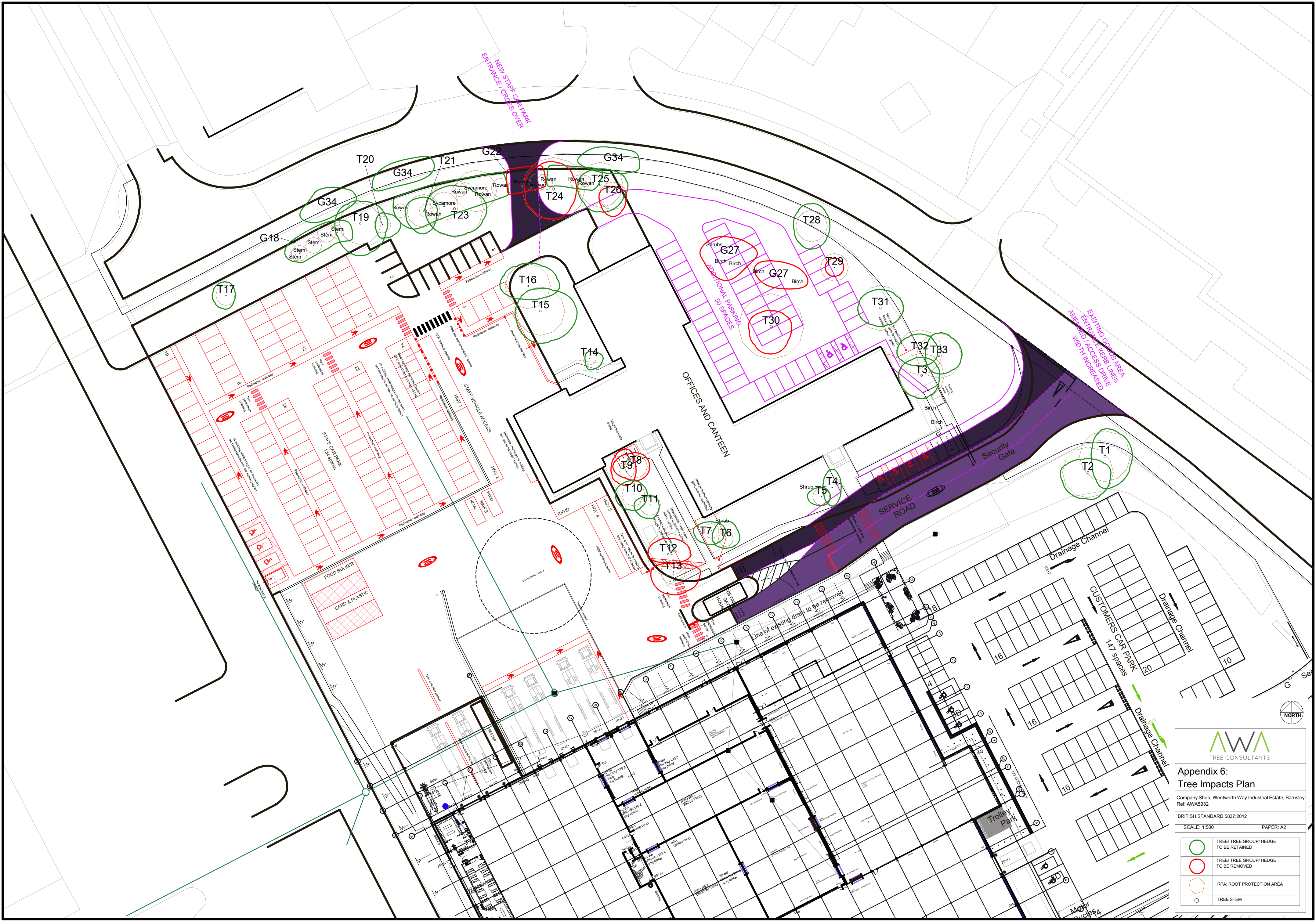
Company Shop, Wentworth Way Industrial Estate, Barnsley  
Ref: AWA5932

BRITISH STANDARD 5837:2012  
RETENTION CATEGORIES  
Definitions of these categories can be found in Appendix 2 of the report.

SCALE: 1:500

PAPER: A2

|                                                                                       |                                                    |
|---------------------------------------------------------------------------------------|----------------------------------------------------|
|  | CATEGORY A: HIGH VALUE<br>RETENTION MOST DESIRABLE |
|  | CATEGORY B: MODERATE VALUE<br>RETENTION DESIRABLE  |
|  | CATEGORY C: LOWER VALUE<br>COULD BE RETAINED       |
|  | CATEGORY U:<br>UNSUITABLE FOR RETENTION            |
|  | RPA: ROOT PROTECTION AREA                          |
|  | TREE STEM                                          |



**Appendix 6:**  
**Tree Impacts Plan**

Company Shop, Wentworth Way Industrial Estate, Barnsley  
Ref: AWA5932

BRITISH STANDARD 5837:2012

SCALE: 1:500      PAPER: A2

|  |                                        |
|--|----------------------------------------|
|  | TREE/ TREE GROUP/ HEDGE TO BE RETAINED |
|  | TREE/ TREE GROUP/ HEDGE TO BE REMOVED  |
|  | RPA: ROOT PROTECTION AREA              |
|  | TREE STEM                              |