



# **ARBORICULTURAL REPORT**

## **& Impact Assessment**

**to BS 5837:2012 at:**

*Land at*  
***Halifax Road,***  
***Thurgoland,***  
***Barnsley,***  
***South Yorkshire***  
***S35 7ED***

Prepared for:  
***Arncliffe Homes Limited***  
*Bramley Grange,*  
*Skeltons Lane,*  
*Thorner,*  
*Leeds,*  
*West Yorkshire*  
*LS14 3DW*

Date: *February 2020*

Reference: AWA2059



# 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 .....                                         | 5         |
| <b>4. Arboricultural Impact Assessment.....</b>                       | <b>7</b>  |
| 4.1 Proposed New Development.....                                     | 7         |
| 4.2 Direct Impacts.....                                               | 7         |
| 4.3 Indirect Impacts.....                                             | 7         |
| 4.4 Protection of the Retained Trees .....                            | 8         |
| <b>5. Signature .....</b>                                             | <b>9</b>  |
| <b>Appendix 1: Authors Qualifications &amp; Experience .....</b>      | <b>11</b> |
| <b>Appendix 2: Survey Methodology and Limitations of Report .....</b> | <b>12</b> |
| <b>Appendix 3: Explanation of Tree Descriptions.....</b>              | <b>13</b> |
| <b>Appendix 4: Tree Data .....</b>                                    | <b>14</b> |
| <b>Appendix 5: Tree Constraints Plan .....</b>                        | <b>15</b> |
| <b>Appendix 6: Tree Impacts Plan.....</b>                             | <b>16</b> |

## 1. Introduction

### 1.1 Instructions and Brief

- 1.1.1 We are instructed by Stuart Carver of Arncliffe Homes Limited 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.

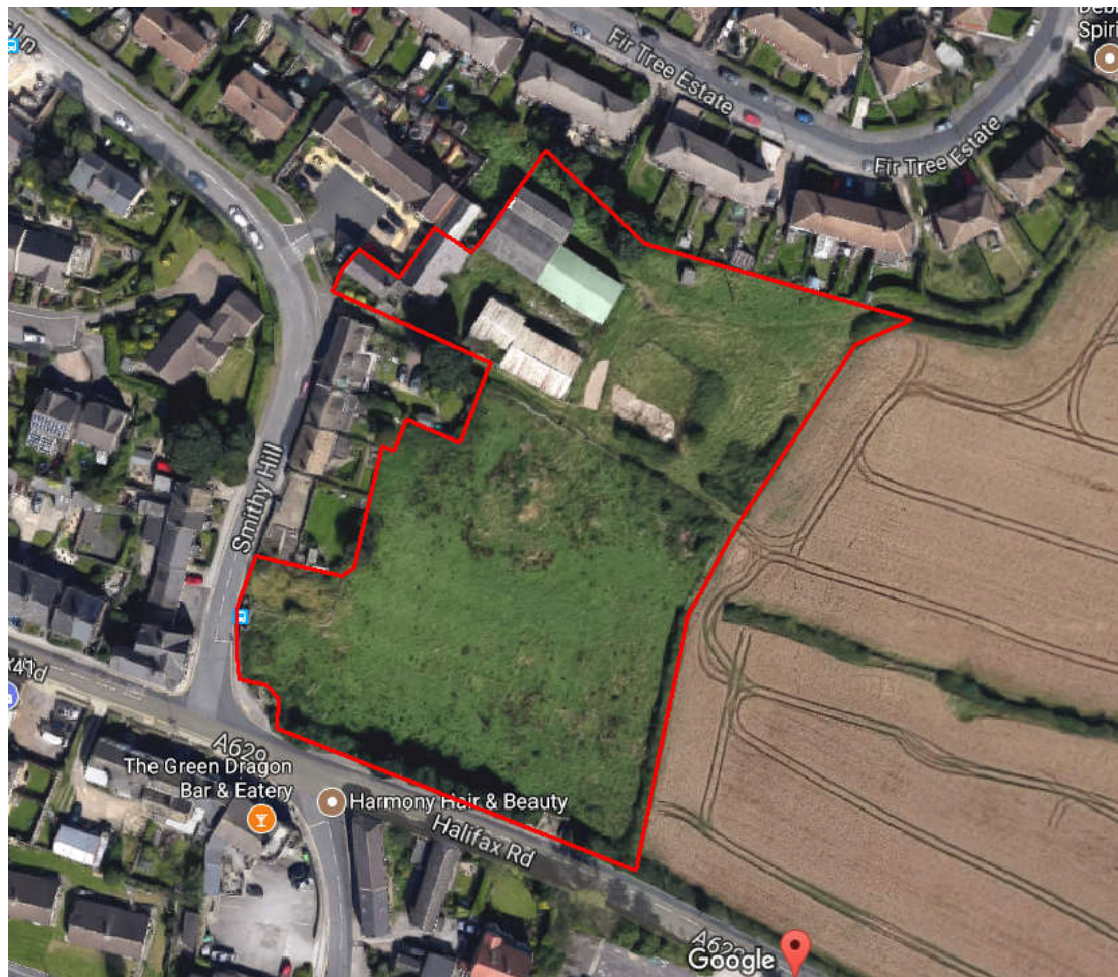
### 1.2 Survey Details

- 1.2.1 The survey took place during November 2017.
- 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 We have been provided with a topographical survey with tree positions plotted. Where surveyed trees were not included on the topographical survey the tree positions were plotted 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, Principle and Director of AWA Tree Consultants Ltd. The tree survey data collection was carried out by Mr James Brown BSc (Hons) Arboriculture, MArborA, Arboriculturist at AWA Tree Consultants Ltd.
- 1.2.6 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 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 off Halifax Road in the centre of the village of Thurgoland in the borough of Barnsley, South Yorkshire.
- 2.1.2 The site currently consists of unused open fields to the south of the site and derelict farm buildings to the north. Residential properties are situated to the north of the site with arable farmland to the east. Roads run along the site's southern and western boundaries.
- 2.1.3 The approximate area of the survey is highlighted in the (2017 Google Earth) image below:



## 3. The Trees

### 3.1 Legal

- 3.1.1 Due to the large potential penalties for illegally carrying out work to protected trees, before authorising any tree works a check should be made with the Local Planning Authority to see if the trees are covered by a Tree Preservation Order or if they are within a Conservation Area (unless such works are approved by planning permission). If either applies, then statutory permission is required before any works can take place.
- 3.1.2 When appointing a tree surgeon, only properly qualified and experienced companies should be used, who have adequate Public Liability and Employer's Liability Insurance. 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 39 items of woody vegetation, comprised of 25 individual trees and 14 groups of trees or shrubs or hedges. Of the surveyed trees: 2 trees are retention category 'B'; and the remaining 37 trees, groups and hedges are retention category 'C' (explanatory details regarding the retention categories are included within Appendix 3).
- 3.2.2 Species diversity at the site is fair. The site is dominated by Hawthorn and Elder hedgerows with several individual Alder and Field Maple trees, and occasional Ash, Sycamore, Birch and Rowan trees. The site's trees had a fair age diversity with a mix of semi-mature, early-mature and mature trees.
- 3.2.3 The site's most significant individual trees are the early mature Sycamores T6 and T39. Tree T6 is in good overall condition, has good prospects, and provides moderate visual amenity value to the site. Tree T39 is situated in a neighbouring garden to the west of the site. It has been heavily pruned in the past, which lowers its value; however, it is a mature tree with fair prospects and it still provides moderate visual amenity.
- 3.2.4 Numerous boundary hedges comprised of Hawthorn, Elder and Holly run throughout the site (G10 to G14, G17, G18, G20 and G37). The hedges have been managed through regular flailing and have numerous pruning wounds and stubs as a result, with occasional deadwood, dieback and gaps. Collectively they provide some ecological, screening or landscape

value to the site, but are only of low arboricultural value.

- 3.2.5 Situated at the site's southern boundary is a linear roadside group of semi mature Alder, Field Maple, Ash and Sycamore trees (T19 and T22 to T33) with a shrubby understorey group comprised of Hawthorn, Blackthorn, Cherry Laurel, Dog Rose and Field Maple (G21). Due to their relatively young age the trees are individually only of low value, but collectively they form a significant landscape feature, providing good screening of the site from the road and have good potential to screen any proposed development at the site.
- 3.2.6 Several trees are situated in neighbouring gardens to the west of the site (T34, G35, T36 and T39). These trees were only given cursory inspections due to their adjacent inaccessible locations.
- 3.2.7 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.
- 3.2.8 The tree Root Protection Area (RPA) detailed on the Tree Constraints Plan at Appendix 5, 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.
- 3.2.9 Some lower value tree, hedge and shrub groups do not have RPAs detailed on tree plans. The detailed extent and spread of the low value groups, in conjunction with the tree schedule, is sufficient to assess the associated potential constraints.
- 3.2.10 The 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.

## **4. Arboricultural Impact Assessment**

### **4.1 Proposed New Development**

- 4.1.1 It is proposed to build a new residential development with associated access, landscaping and facilities. 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, the removal or partial removal of 10 trees, tree groups or hedges is required as they are situated in the footprint of the development or their retention and protection throughout the development is not suitable.
- 4.2.2 The trees, tree groups and hedges that require removal are G13, G14, T15, T16, G17, T19, G37 and sections of G18, G20 and G21.
- 4.2.3 The trees, tree groups or hedges requiring removal are all of relatively low value and their removal or partial removal will have little negative impact at the site. The screening provided by the boundary tree groups or hedges can be easily replaced with new boundary landscape plantings if required.

### **4.3 Indirect Impacts**

- 4.3.1 The tree Root Protection Area (RPA) detailed on the Tree Constraints Plan at Appendix 5, 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. A proposed new access road is situated within the RPA of the adjacent Sycamore T39. The construction of hard surfaces within the RPA can have negative impacts on tree roots. However, the existing hardstanding and considerable ground compaction in this area and the wall situated between the tree and the site has likely limited root extension to the north. The tree has also recently undergone heavy crown reduction works. As such, the retained tree should remain largely unaffected by the works, provided care is taken during construction. Potential negative impacts of new hard surfacing on tree roots can often be overcome or minimised by employing a 'no-dig' type construction methods with a porous final surface.

- 4.3.3 A proposed new footpath is situated within the RPA of the retained Sycamore T6. Employing a 'no-dig' type construction method with a porous final surface would overcome the potential negative impacts of the new hard surfacing on tree roots.
- 4.3.4 New boundary fencing is proposed within the RPA of trees T5 and T6. The 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 within the RPAs, with the holes for the posts dug by hand, and care is taken during the construction to avoid root damage.
- 4.3.5 The design of the new development has considered tree crown positions in relation to the new dwellings. 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 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 Protection of the Retained Trees**

- 4.4.1 The retained trees will require protection by fencing in accordance with BS 5837: 2012, during the development phase.
- 4.4.2 An associated Arboricultural Method Statement, detailing protective fencing specifications and construction methods close to the retained trees has been provided.

## 5. Signature

I trust this report provides all the required information.

Signed



.....

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

**27<sup>th</sup> February 2020**

**AWA Tree Consultants Limited  
Union Forge  
27 Mowbray Street  
Sheffield  
S3 8EN**

[www.awatrees.com](http://www.awatrees.com)



Institute of  
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

**Mr Adam Winson** Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, ACIEEM, QTRA Registered.

Adam is the company Director and Principle 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 has original research published by the UK Forestry Commission. His work ranges from individual expert tree inspections to managing trees on major multimillion pound housing developments and 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.

**Mr James Brown** BSc (Hons) Arboriculture, MArborA, PTI (Lantra).

James has a BSc (Hons) in Arboriculture, attaining first class honours, as well as being awarded the Institute of Chartered Forester's Student award. He is a Professional Member of the Arboricultural Association and an Associate of the Institute of Chartered Foresters. James previously worked in Europe's largest tree nursery and has experience of Local Authority tree officer work. His main work consists of tree surveys for development projects and preparing Tree Protection Schemes to BS 5837:2012.

**Mr Dave Farmer** FdSc (Arb), MArborA, PTI (Lantra).

Dave has a Foundation Degree in Arboriculture (with Distinction) and is qualified in Professional Tree Inspection. He is a Professional Member of the Arboricultural Association and an Associate of the Institute of Chartered Foresters. Dave has many years of experience within the tree care profession, including lecturing in arboriculture. His work focuses on diagnosing potential tree risk problems, and recommending appropriate treatments and work programmes.

**Dr Felicity Stout** Ph.D, MA, BA (Hons), Cert Ed (Forestry), TechArborA, PTI (Lantra).

Felicity has worked in the tree care profession for the last 10 years. She has a Certificate in Higher Education in Forestry, with a focus on Urban Forestry. She has practical arboricultural contractor experience and is a qualified and experienced Social Forestry practitioner. Felicity has a PhD in History, with a particular interest in the history of woodland and tree management and has published in The Arboricultural Journal on this subject.

**Mr Patrick Rowntree** Cert Arb L3, TechArborA, PTI (Lantra).

Patrick is a trained arborist with 5 years of experience in both the private and commercial sectors and is a technician member of the Arboricultural Association. Having travelled the world, both working as an arborist and playing professional rugby, Patrick was awarded a Distinction in the Extended Diploma in Forestry & Arboriculture and is qualified in Professional Tree Inspection. Patrick now uses his work and education experience at AWA, focusing on accurate tree data collection for tree surveys for development projects and assisting the team in the preparation of tree reports and tree plans to BS 5837:2012.

**Mr Drew Leeper** Cert Arb L3, TechArborA.

Drew has over 10 years experience within the arboricultural sector and was awarded Distinction in the Extended Diploma in Forestry & Arboriculture. From working abroad in Canada as a climbing arborist and returning home to running his own tree care firm. Drew has also been fortunate enough to gain valuable experience working at the Royal Botanical Gardens of Kew. He now uses his work and education experience at AWA, focusing on accurate tree data collection for tree surveys for development projects and assisting the team in the preparation of tree reports and tree plans to BS 5837:2012.

## Appendix 2: Survey Methodology and Limitations of Report

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 BS5837 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 and includes information of the first significant branch and direction of growth.

**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 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 for removal.** These trees are in such a condition that any existing value would be lost within 10 years.

| Tree ID | Tree Species   |                                          | Maturity     | Measurements |       |               |           | Crown (m)  |          |     |   |     | Tree Condition    |                                                                                          |        |                                                                                |            |            |                 | Value    |          | Management        |
|---------|----------------|------------------------------------------|--------------|--------------|-------|---------------|-----------|------------|----------|-----|---|-----|-------------------|------------------------------------------------------------------------------------------|--------|--------------------------------------------------------------------------------|------------|------------|-----------------|----------|----------|-------------------|
|         | Common Name    | Latin Name                               |              | Height (m)   | Stems | Stem Dia (mm) | Estimated | Ave Height | N        | E   | S | W   | Roots             | Stem                                                                                     | Crown  | Comments                                                                       | Physiology | Structural | Life Expectancy | Amenity  | Category | Works             |
| T1      | Lawson Cypress | <i>Chamaecyparis lawsoniana</i>          | Semi-mature  | 7            | 1     | 170           | No        | 1          | 2        | 2   | 2 | 2   | No visual defects | Single stemmed, Vertical, Ivy covered                                                    | Normal |                                                                                | Good       | Good       | >40 yrs         | Low      | C        | No works required |
| T2      | Ash            | <i>Fraxinus excelsior</i>                | Semi-mature  | 10           | 1     | 200           | No        | 3          | 5        | 4   | 2 | 4   | No visual defects | Single stemmed, Significant lean                                                         | Normal | Significant lean to north over adjacent garden                                 | Good       | Fair       | 20 to 40 yrs    | Moderate | C        | No works required |
| T3      | Sycamore       | <i>Acer pseudoplatanus</i>               | Semi-mature  | 10           | 1     | 260           | No        | 4          | 4        | 3   | 3 | 3   | No visual defects | Single stemmed, Slight lean                                                              | Normal |                                                                                | Good       | Good       | >40 yrs         | Moderate | C        | No works required |
| G4      | Elder, Privet  | <i>Sambucus nigra, Ligustrum vulgare</i> | Semi-mature  | 4            | 10+   | 6             | No        | 0          | See plan |     |   |     | No visual defects | Single & Multiple stemmed, Vertical, Old pruning wounds, Tight unions                    | Normal | Understorey group of shrubby Elder and Privet, Unmanaged, Some screening value | Good       | Fair       | 20 to 40 yrs    | Low      | C        | No works required |
| T5      | Sycamore       | <i>Acer pseudoplatanus</i>               | Semi-mature  | 13           | 1     | 380           | No        | 3          | 4        | 5   | 1 | 4   | No visual defects | Single stemmed, Twin stemmed at 2.5m, Slight lean, Tight unions, Partially included bark | Normal | Leaning slightly to north                                                      | Good       | Fair       | 20 to 40 yrs    | Moderate | C        | No works required |
| T6      | Sycamore       | <i>Acer pseudoplatanus</i>               | Early-mature | 14           | 1     | 470           | No        | 3          | 4.5      | 4.5 | 5 | 4.5 | No visual defects | Single stemmed, Twin stemmed, at 1.5m, Vertical, Stubs, Old pruning wounds               | Normal | Slight included bark in union of two main stems at 1.5m                        | Good       | Good       | >40 yrs         | Moderate | B        | No works required |

| Tree ID | Tree Species    |                                                               | Maturity    | Measurements |       |               |           | Crown (m)  |          |   |   |   | Tree Condition    |                                                                              |                               |                                                              |            |            |                 | Value   |          | Management        |
|---------|-----------------|---------------------------------------------------------------|-------------|--------------|-------|---------------|-----------|------------|----------|---|---|---|-------------------|------------------------------------------------------------------------------|-------------------------------|--------------------------------------------------------------|------------|------------|-----------------|---------|----------|-------------------|
|         | Common Name     | Latin Name                                                    |             | Height (m)   | Stems | Stem Dia (mm) | Estimated | Ave Height | N        | E | S | W | Roots             | Stem                                                                         | Crown                         | Comments                                                     | Physiology | Structural | Life Expectancy | Amenity | Category | Works             |
| G7      | Holly           | <i>Ilex aquifolium</i>                                        | Semi-mature | 4            | 6     | 5             | No        | 1          | See plan |   |   |   | No visual defects | Single & Multiple stemmed, Vertical, Old pruning wounds                      | Normal                        | Outgrowing its position and intruding into adjacent footpath | Good       | Fair       | 20 to 40 yrs    | Low     | C        | No works required |
| T8      | Holly           | <i>Ilex aquifolium</i>                                        | Semi-mature | 3.5          | 1     | 80            | Yes       | 1          | 2        | 2 | 2 | 2 | No visual defects | Single stemmed, Vertical                                                     | Normal                        | Situated in adjacent land. No access. Variegated variety.    | Good       | Good       | 20 to 40 yrs    | Low     | C        | No works required |
| G9      | Cypress, Privet | <i>Chamaecyparis lawsoniana</i> ,<br><i>Ligustrum vulgare</i> | Semi-mature | 2            | 10+   | 6             | No        | 0.5        | See plan |   |   |   | No visual defects | Single & Multiple stemmed, Vertical, Old pruning wounds, Stubs               | Minor deadwood, Minor dieback | Managed hedge. Some screening value.                         | Good       | Good       | 20 to 40 yrs    | Low     | C        | No works required |
| G10     | Hawthorn        | <i>Crataegus monogyna</i>                                     | Semi-mature | 2            | 10+   | 6             | No        | 0          | See plan |   |   |   | No visual defects | Single & Multiple stemmed, Vertical, Old pruning wounds, Stubs, Tight unions | Minor deadwood, Minor dieback | Managed hedge. Good habitat and screening value.             | Good       | Good       | >40 yrs         | Low     | C        | No works required |
| G11     | Hawthorn, Holly | <i>Crataegus monogyna</i> , <i>Ilex aquifolium</i>            | Semi-mature | 2            | 10+   | 6             | No        | 0          | See plan |   |   |   | No visual defects | Single & Multiple stemmed, Vertical, Old pruning wounds, Stubs, Tight unions | Minor deadwood, Minor dieback | Managed hedge. Good habitat and screening value.             | Good       | Fair       | >40 yrs         | Low     | C        | No works required |
| G12     | Hawthorn        | <i>Crataegus monogyna</i>                                     | Semi-mature | 1.5          | 10+   | 10            | No        | 0          | See plan |   |   |   | No visual defects | Single & Multiple stemmed, Vertical, Old pruning wounds, Stubs, Tight unions | Minor deadwood, Minor dieback | Managed hedge. Good habitat and screening value.             | Good       | Good       | >40 yrs         | Low     | C        | No works required |

| Tree ID | Tree Species    |                                        | Maturity    | Measurements |       |               |           | Crown (m)  |          |   |   |   | Tree Condition    |                                                                                           |                               |                                                  |            |            |                 | Value    |          | Management                                         |
|---------|-----------------|----------------------------------------|-------------|--------------|-------|---------------|-----------|------------|----------|---|---|---|-------------------|-------------------------------------------------------------------------------------------|-------------------------------|--------------------------------------------------|------------|------------|-----------------|----------|----------|----------------------------------------------------|
|         | Common Name     | Latin Name                             |             | Height (m)   | Stems | Stem Dia (mm) | Estimated | Ave Height | N        | E | S | W | Roots             | Stem                                                                                      | Crown                         | Comments                                         | Physiology | Structural | Life Expectancy | Amenity  | Category | Works                                              |
| G13     | Holly, Elder    | <i>Ilex sp. Sambucus sp.</i>           | Semi-mature | 2            | 10+   | 6             | No        | 0          | See plan |   |   |   | No visual defects | Single & Multiple stemmed, Vertical, Old pruning wounds, Stubs, Tight unions              | Minor deadwood, Minor dieback | Western section of hedge is dead                 | Fair       | Fair       | 20 to 40 yrs    | Low      | C        | Removal required to facilitate development         |
| G14     | Holly, Elder    | <i>Ilex aquifolium, Sambucus nigra</i> | Semi-mature | 2            | 10+   | 5             | No        | 0          | See plan |   |   |   | No visual defects | Single & Multiple stemmed, Vertical, Old pruning wounds, Stubs, Tight unions              | Minor deadwood, Minor dieback |                                                  | Poor       | Fair       | 10 to 20 yrs    | Low      | C        | Removal required to facilitate development         |
| T15     | Elder           | <i>Sambucus nigra</i>                  | Mature      | 4            | 10+   | 60            | No        | 1          | 3        | 2 | 2 | 2 | No visual defects | Multiple stemmed at base, Vertical, Epicormic growths, Tight unions                       | Minor dieback, Minor deadwood |                                                  | Fair       | Fair       | 10 to 20 yrs    | Low      | C        | Removal required to facilitate development         |
| T16     | Elder           | <i>Sambucus nigra</i>                  | Semi-mature | 4            | 6     | 50            | No        | 1          | 2        | 2 | 2 | 2 | No visual defects | Multiple stemmed at base, Vertical, Epicormic growths, Tight unions                       | Minor dieback, Minor deadwood |                                                  | Fair       | Fair       | 10 to 20 yrs    | Low      | C        | Removal required to facilitate development         |
| G17     | Hawthorn, Elder | <i>Crataegus sp. Sambucus sp.</i>      | Semi-mature | 1.5          | 10+   | 10            | No        | 0          | See plan |   |   |   | No visual defects | Single & Multiple stemmed, Vertical, Old pruning wounds, Stubs, Tight unions              | Minor deadwood, Minor dieback | Managed hedge. Good habitat and screening value. | Good       | Fair       | >40 yrs         | Moderate | C        | Removal required to facilitate development         |
| G18     | Hawthorn, Holly | <i>Crataegus sp. Ilex sp.</i>          | Semi-mature | 3            | 10+   | 50            | No        | 0          | See plan |   |   |   | No visual defects | Single & Multiple stemmed, Vertical, Old pruning wounds, Stubs, Tight unions, Ivy covered | Minor deadwood, Minor dieback | Unmanaged roadside hedge                         | Fair       | Fair       | >40 yrs         | Moderate | C        | Partial removal required to facilitate development |

| Tree ID | Tree Species                                  |                                                   | Maturity    | Measurements |       |               |           | Crown (m)  |          |     |     |     | Tree Condition    |                                                                              |            |                                                                                     |            |            |                 | Value    |          | Management                                         |
|---------|-----------------------------------------------|---------------------------------------------------|-------------|--------------|-------|---------------|-----------|------------|----------|-----|-----|-----|-------------------|------------------------------------------------------------------------------|------------|-------------------------------------------------------------------------------------|------------|------------|-----------------|----------|----------|----------------------------------------------------|
|         | Common Name                                   | Latin Name                                        |             | Height (m)   | Stems | Stem Dia (mm) | Estimated | Ave Height | N        | E   | S   | W   | Roots             | Stem                                                                         | Crown      | Comments                                                                            | Physiology | Structural | Life Expectancy | Amenity  | Category | Works                                              |
| T19     | Sycamore                                      | <i>Acer pseudoplatanus</i>                        | Semi-mature | 6            | 2     | 150, 150      | Yes       | 1          | 2.5      | 2.5 | 2.5 | 2.5 | No visual defects | Twin stemmed at base, Vertical growth orientation, Tight union, Ivy covered  | Normal     | Limited access. Roadside position on banking.                                       | Good       | Good       | >40 yrs         | Low      | C        | Removal required to facilitate development         |
| G20     | Hawthorn                                      | <i>Crataegus monogyna</i>                         | Semi-mature | 2            | 10+   | 6             | Yes       | 0          | See plan |     |     |     | No visual defects | Single & Multiple stemmed, Vertical, Old pruning wounds, Stubs, Tight unions | Normal     | Limited access. Roadside position on banking.                                       | Good       | Good       | >40 yrs         | Moderate | C        | Partial removal required to facilitate development |
| G21     | Hawthorn, Blackthorn, Laurel, Dog Rose, Maple | <i>Crataegus sp. Prunus sp. Rosa sp. Acer sp.</i> | Semi-mature | 2            | 10+   | 20            | No        | 0          | See plan |     |     |     | No visual defects | Single & Multiple stemmed, Vertical, Stubs, Old pruning wounds               | Normal     | Shrubby roadside group                                                              | Good       | Good       | >40 yrs         | Moderate | C        | Partial removal required to facilitate development |
| T22     | Maple                                         | <i>Acer campestre</i>                             | Semi-mature | 6.5          | 1     | 250           | No        | 1          | 3        | 3.5 | 2.5 | 2   | No visual defects | Single stemmed, Twin stemmed at 1.5m, Slight lean                            | Normal     | Limited access prevented accurate stem measurement. Affecting telephone wire above. | Good       | Good       | >40 yrs         | Low      | C        | No works required                                  |
| T23     | Maple                                         | <i>Acer campestre</i>                             | Semi-mature | 6            | 2     | 200, 150      | No        | 1          | 3        | 3.5 | 3.5 | 3.5 | No visual defects | Twin stemmed at base, Vertical                                               | Normal     | Limited access prevented accurate stem measurement. Affecting telephone wire above. | Good       | Good       | >40 yrs         | Low      | C        | No works required                                  |
| T24     | Alder                                         | <i>Alnus glutinosa</i>                            | Semi-mature | 6            | 1     | 120           | No        | 2.5        | 1        | 2.5 | 2   | 0.5 | No visual defects | Single stemmed, Vertical                                                     | Unbalanced | On roadside banking. Encroaching on BT wire above.                                  | Good       | Good       | >40 yrs         | Low      | C        | No works required                                  |

| Tree ID | Tree Species |                        | Maturity    | Measurements |       |               |           | Crown (m)  |     |     |     |     | Tree Condition    |                                                |            |                                                                                                            |            |            |                 | Value   |          | Management        |
|---------|--------------|------------------------|-------------|--------------|-------|---------------|-----------|------------|-----|-----|-----|-----|-------------------|------------------------------------------------|------------|------------------------------------------------------------------------------------------------------------|------------|------------|-----------------|---------|----------|-------------------|
|         | Common Name  | Latin Name             |             | Height (m)   | Stems | Stem Dia (mm) | Estimated | Ave Height | N   | E   | S   | W   | Roots             | Stem                                           | Crown      | Comments                                                                                                   | Physiology | Structural | Life Expectancy | Amenity | Category | Works             |
| T25     | Maple        | <i>Acer campestre</i>  | Semi-mature | 7            | 2     | 210, 110      | No        | 3          | 2   | 3.5 | 2.5 | 1   | No visual defects | Twin stemmed at base, Vertical                 | Normal     | On roadside banking. Encroaching on BT wire above.                                                         | Good       | Good       | >40 yrs         | Low     | C        | No works required |
| T26     | Alder        | <i>Alnus glutinosa</i> | Semi-mature | 8            | 1     | 160           | No        | 3          | 2   | 2.5 | 2   | 1   | No visual defects | Single stemmed, Vertical                       | Normal     |                                                                                                            | Good       | Good       | >40 yrs         | Low     | C        | No works required |
| T27     | Maple        | <i>Acer campestre</i>  | Semi-mature | 7            | 1     | 200           | No        | 2          | 3   | 2.5 | 3   | 2.5 | Exposed roots     | Single stemmed, Vertical                       | Normal     | Limited access prevented accurate stem measurement. Some exposed primary roots due to position on banking. | Good       | Good       | >40 yrs         | Low     | C        | No works required |
| T28     | Alder        | <i>Alnus glutinosa</i> | Semi-mature | 8            | 2     | 120, 160      | No        | 2          | 2   | 3   | 2   | 1   | No visual defects | Twin stemmed at base, Slight lean, Bark damage | Normal     | Bark wounds to main stems but healing well                                                                 | Good       | Good       | >40 yrs         | Low     | C        | No works required |
| T29     | Maple        | <i>Acer campestre</i>  | Semi-mature | 8            | 1     | 200           | No        | 2          | 3   | 2.5 | 2.5 | 3.5 | No visual defects | Single stemmed, Twin stemmed at 1.5m, Vertical | Normal     |                                                                                                            | Good       | Good       | >40 yrs         | Low     | C        | No works required |
| T30     | Maple        | <i>Acer campestre</i>  | Semi-mature | 7            | 1     | 210           | No        | 2          | 2.5 | 3.5 | 2.5 | 0.5 | No visual defects | Single stemmed, Slight lean                    | Unbalanced |                                                                                                            | Good       | Fair       | >40 yrs         | Low     | C        | No works required |

| Tree ID | Tree Species             |                                                                       | Maturity     | Measurements |       |               |           | Crown (m)  |          |     |     |     | Tree Condition    |                                                                                       |        |                                                  |            |            |                 | Value    |          | Management        |
|---------|--------------------------|-----------------------------------------------------------------------|--------------|--------------|-------|---------------|-----------|------------|----------|-----|-----|-----|-------------------|---------------------------------------------------------------------------------------|--------|--------------------------------------------------|------------|------------|-----------------|----------|----------|-------------------|
|         | Common Name              | Latin Name                                                            |              | Height (m)   | Stems | Stem Dia (mm) | Estimated | Ave Height | N        | E   | S   | W   | Roots             | Stem                                                                                  | Crown  | Comments                                         | Physiology | Structural | Life Expectancy | Amenity  | Category | Works             |
| T31     | Maple                    | <i>Acer campestre</i>                                                 | Semi-mature  | 9            | 1     | 270           | No        | 2          | 3.5      | 4   | 3.5 | 2.5 | No visual defects | Single stemmed, Twin stemmed at 1.5m, Vertical, Tight unions, Partially included bark | Normal | Included bark in union of two main stems at 1.5m | Good       | Fair       | >40 yrs         | Low      | C        | No works required |
| T32     | Maple                    | <i>Acer campestre</i>                                                 | Semi-mature  | 6            | 1     | 160           | No        | 2          | 3        | 2   | 3   | 3   | No visual defects | Single stemmed, Vertical                                                              | Normal | Hedgerow tree with good prospects.               | Good       | Good       | >40 yrs         | Low      | C        | No works required |
| T33     | Ash                      | <i>Fraxinus excelsior</i>                                             | Semi-mature  | 7            | 1     | 150           | No        | 3.5        | 2        | 2   | 2   | 2   | No visual defects | Single stemmed, Slight lean                                                           | Normal |                                                  | Good       | Good       | >40 yrs         | Low      | C        | No works required |
| T34     | Birch                    | <i>Betula pendula</i>                                                 | Early-mature | 9            | 1     | 250           | Yes       | 2          | 4        | 3.5 | 2   | 2.5 | No visual defects | Single stemmed, Slight lean, Stubs, Old pruning wounds                                | Normal | Situated in adjacent land. No access.            | Good       | Good       | >40 yrs         | Moderate | C        | No works required |
| G35     | Lilac, Cypress, Berberis | <i>Syringa sp.</i> ,<br><i>Cupressus sp.</i> ,<br><i>Berberis sp.</i> | Early-mature | 3            | 10    | 5             | Yes       | 0.5        | See plan |     |     |     | No visual defects | Single & Multiple stemmed, Vertical                                                   | Normal | Adjacent shrub group. No access.                 | Fair       | Fair       | 20 to 40 yrs    | Moderate | C        | No works required |
| T36     | Rowan                    | <i>Sorbus aucuparia</i>                                               | Mature       | 6            | 1     | 250           | Yes       | 2          | 4        | 4   | 4   | 4   | No visual defects | Single stemmed, Vertical                                                              | Normal | Situated in adjacent land. No access.            | Good       | Good       | >40 yrs         | Moderate | C        | No works required |

| Tree ID | Tree Species            |                                                            | Maturity    | Measurements |       |               |           | Crown (m)  |          |     |     |     | Tree Condition    |                                                             |                                              |                                                                                                        |            |            |                 | Value    |          | Management                                 |
|---------|-------------------------|------------------------------------------------------------|-------------|--------------|-------|---------------|-----------|------------|----------|-----|-----|-----|-------------------|-------------------------------------------------------------|----------------------------------------------|--------------------------------------------------------------------------------------------------------|------------|------------|-----------------|----------|----------|--------------------------------------------|
|         | Common Name             | Latin Name                                                 |             | Height (m)   | Stems | Stem Dia (mm) | Estimated | Ave Height | N        | E   | S   | W   | Roots             | Stem                                                        | Crown                                        | Comments                                                                                               | Physiology | Structural | Life Expectancy | Amenity  | Category | Works                                      |
| G37     | Elder, Hawthorn         | <i>Sambucus nigra</i> ,<br><i>Crataegus monogyna</i>       | Semi-mature | 2            | 10+   | 5             | No        | 0          | See plan |     |     |     | No visual defects | Single & Multiple stemmed, Old pruning wounds, Tight unions | Normal                                       | Shrubby unmanaged hedge                                                                                | Good       | Good       | 20 to 40 yrs    | Low      | C        | Removal required to facilitate development |
| G38     | Holly, Hawthorn, Laurel | <i>Ilex sp.</i> , <i>Crataegus sp.</i> , <i>Prunus sp.</i> | Semi-mature | 3            | 10+   | 5             | Yes       | 1          | See plan |     |     |     | No visual defects | Single & Multiple stemmed, Old pruning wounds, Tight unions | Normal                                       | Shrub group. Situated in adjacent land. No access.                                                     | Good       | Good       | 20 to 40 yrs    | Low      | C        | No works required                          |
| T39     | Sycamore                | <i>Acer pseudoplatanus</i>                                 | Mature      | 10           | 1     | 500           | Yes       | 4          | 4.5      | 4.5 | 4.5 | 4.5 | No visual defects | Single stemmed, Slight lean, Stubs, Old pruning wounds      | Pruning wounds Small/ sparse, Minor deadwood | Situated in adjacent land. No access. Pruned/ pollarded at approximately 9m. Leaning on wall to north. | Good       | Fair       | >40 yrs         | Moderate | B        | No works required                          |



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

Land at Halifax Road, Thurgoland  
Ref: AWA2059

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>FOR REMOVAL                         |
|  | RPA: ROOT PROTECTION AREA                          |
|  | TREE STEM                                          |







**Appendix 6:  
Tree Impacts Plan**

Land at Halifax Road, Thurgoland  
Ref: AWA2059

BRITISH STANDARD 5837:2012  
SCALE: 1:500 PAPER: A2

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