



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

***The Long Barn,
134 Genn Lane,
Ward Green,
Barnsley,
S70 6NW***

Prepared for:
Mr. Bryan Mangham

Date: *April 2022*

Reference: AWA4291



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1. Introduction

1.1 Instructions and Brief

- 1.1.1 We were instructed by Mr. Bryan Mangham 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 March 2022.
- 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, Principle and Director of AWA Tree Consultants Ltd.
- 1.2.6 The tree survey data collection was carried out by Mr James Godfrey BA (Hons), Cert Arb L3, Level 4 Forestry and Arboriculture, TechArborA, 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 refer to the Tree Constraints Plan at **Appendix 5**.

2. The Site

2.1 Location and Description

- 2.1.1 The site is located south of the market town of Barnsley, South Yorkshire.
- 2.1.2 The site is the rear garden area of a residential property, with the main house located at the eastern end. Genn Lane runs along the northern boundary, with a grassland field beyond that. The main residence and parking facilities are beyond the eastern boundary, with neighbouring properties to the south. The western boundary is bordered by agricultural land.
- 2.1.3 The approximate area of the survey is highlighted in the image below (Google Earth, 2021):



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 has been carried out with Barnsley Metropolitan Borough Council on 8th April 2022 to ascertain whether any trees at the site are located within a Conservation area or are protected by a Tree Preservation Order (TPO). 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 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.
- 3.1.5 When appointing a tree surgeon, only properly qualified and experienced companies should be used, who have adequate Public Liability and Employer's Liability Insurance.
- 3.1.6 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 10 individual trees, of which 2 trees are retention category 'B', while the remaining 8 trees are retention category 'C' (explanatory details regarding the retention categories are included at Appendix 3).

- 3.2.2 Full details of the surveyed trees are provided in the attached tree data schedule at Appendix 4. General comments are provided below:
- 3.2.3 All 10 trees within the survey area are Sycamore, ranging in age from semi-mature to mature, forming a small wooded area at the western end of the rear garden.
- 3.2.4 T1 and T4 are mature trees with good long-term prospects and provide a moderate degree of amenity within the local landscape.
- 3.2.5 T3 and T9 have been suppressed by larger surrounding trees and are therefore of low amenity but do provide the site with some degree of screening. T2, T6 and T7 form part of the southern aspect of the woodland group. They provide adequate screening but have slightly unbalanced crowns, likely due to how they have grown on the edge of the group. T8 is a mature tree located on the northern boundary with decent long-term prospects, despite a lean to the north. T10 is situated to the west of the other trees and has a fairly prominent location by the main road and decent long-term prospects.
- 3.2.6 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.
- 3.2.7 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.
- 3.2.8 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.

3.3 Photographs



Photo 1: T1 to T9, looking north

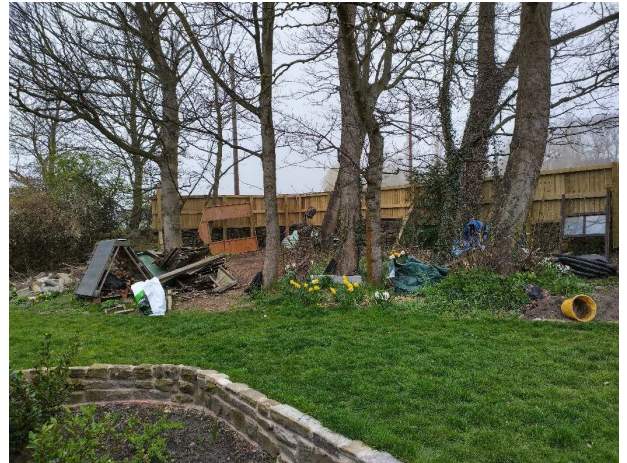


Photo 2: T1 to T9, looking northeast



Photo 3: T1 to T8, looking east



Photo 4: Within the woodland group, looking southeast towards T1 to T6

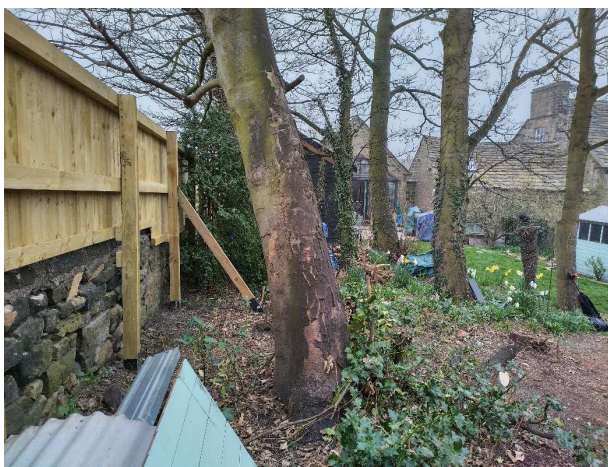


Photo 5: The leaning stem of T8, looking east



Photo 6: T10, looking northwest

3.4 Arboricultural Development Advice

- 3.4.1 The higher value retention category 'B' trees and groups should be retained, where possible, and incorporated into any new development design.
- 3.4.2 Where suitable, those category 'C' trees and groups with reasonable future prospects (as detailed at Appendix 4) should be retained as part of any new development. If required by the development proposals, occasional lower value, retention category 'C' trees and groups could be removed, and replacement planting would largely mitigate their losses.
- 3.4.3 The tree Root Protection Area (RPA), detailed on the Tree Constraints Plan at Appendix 5, should be 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.
- 3.4.4 If construction of new buildings is required within the RPA of retained trees it may be possible to employ special foundation design such as mini/micro pile and suspended beam or a cantilevered foundation.
- 3.4.5 Construction of hard surfaces, for drives and paths, 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 method with a porous final surface.
- 3.4.6 The design of the new development should consider tree crown positions in relation to any new dwellings. The dappled shade of a tree is more pleasant than the deep shadow of a building, and some shade from trees may be beneficial. In particular, deciduous trees give shade in summer but allow access to sunlight in winter. Whilst either shade or sunlight might be desirable, depending on the potential use of the area affected, the design should avoid unreasonable obstruction of light and should give adequate provision for future tree growth.

3.5 Protection of the Retained Trees

- 3.5.1 The retained trees may require protection by fencing in accordance with BS 5837:2012, during the development phase.
- 3.5.2 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.

4. Signature

I trust this report provides all the required information.

Signed



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

8th April 2022

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Appendices

- Appendix 1: Authors Qualifications and Experience**
- Appendix 2: Survey Methodology and Limitations of Report**
- Appendix 3: Explanation of Tree Descriptions**
- Appendix 4: Tree Data**
- Appendix 5: Tree Constraints 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 joined AWA in 2016, after previously working 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.

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 Tom Readman FdSc Arboriculture, Cert Arb L3, TechArborA, Valid Tree Risk-Benefit Validator

Tom joined AWA from his previous role as a tree risk surveyor with Harrogate Borough Council, where he undertook tree risk surveys at a range of sites and prescribed suitable works. Tom also has extensive previous experience as a climbing arborist. Tom achieved a Distinction in the Foundation Degree in Arboriculture, while working at AWA, and has previously achieved Distinction Star, and was recognised as the student of the year, in the Extended Diploma in Forestry and Arboriculture. Tom's work focuses on tree risk surveys and accurate tree data collection for development projects to BS 5837:2012

Mr James Godfrey BA (Hons), Cert Arb L3, Level 4 Forestry and Arboriculture, TechArborA

James has extensive arboricultural experience working as a team leader within the public and private sector. By achieving a Distinction Star in the Extended Diploma in Forestry and Arboriculture, James was able to use his knowledge to inform and carry out appropriate maintenance that ensured the long-term wellbeing of trees across the UK. During his time at Darlington Borough Council, James provided on-site assessment and the management of the remedial works required to ensure safe and suitable retention of trees that provide a multitude of benefits to the urban environment. Currently, James is completing a Foundation Degree in Arboriculture and Tree Management, while working at AWA.

Mr David Miller BA (Hons), PGCE education, Dip Arboriculture Level 4, TechArborA

David joined AWA after having managed his own tree care team for 8 years and gained a wealth of experience in the tree care industry. Prior to this David spent 10 years working in secondary mainstream and special education. David has also travelled worldwide, mainly trekking and running. His main work at AWA consists of tree surveys for development projects and preparing Tree Protection Schemes 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 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.

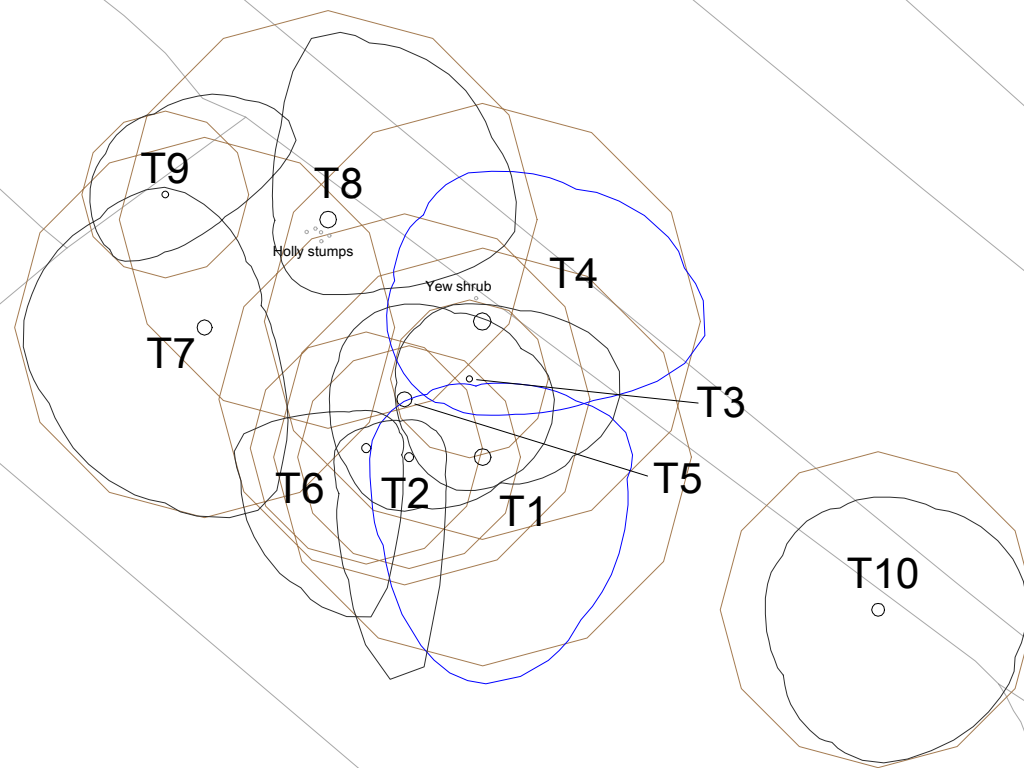
B (marked in blue on Appendix 5) = retention desirable. These trees are of good quality and value with a significant life expectancy.

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 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 Diameter (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T1	Sycamore	<i>Acer pseudoplatanus</i>	Mature	14	1	450	No	2.5	2	4	6	3	No visual defects	Single stemmed. Vertical. Epicormic growths. Stubs	Minor deadwood. Snapped /hanging branches. Slightly unbalanced	Epicormic growths and wild flowers at base prevented detailed inspection of roots and lower stem	Fair	Good	>40 yrs	Moderate	B	No works required in current site context
T2	Sycamore	<i>Acer pseudoplatanus</i>	Semi-mature	9	1	240	No	4	1	1	6	2	No visual defects	Single stemmed. Vertical. Significant lean to south at 3m. Epicormic growths	Old pruning wounds. Minor deadwood. Unbalanced to south	Overhangs telephone wires to south	Fair	Fair	>40 yrs	Low	C	No works required in current site context
T3	Sycamore	<i>Acer pseudoplatanus</i>	Semi-mature	5.5	1	170	No	2	2	4	3	2	No visual defects	Single stemmed. Vertical. Epicormic growths. Stubs. Ivy covered	Minor deadwood. Snapped /hanging branches. Slightly unbalanced to east	Suppressed by adjacent trees. Ivy prevented detailed inspection and accurate stem measurement	Fair	Fair	>40 yrs	Low	C	No works required in current site context
T4	Sycamore	<i>Acer pseudoplatanus</i>	Mature	14	1	470	Yes	2.5	4	6	2.5	2.5	No visual defects	Single stemmed. Significant lean to east. Stubs. Ivy covered	Old pruning wounds. Cavities. Moderate deadwood. Slightly unbalanced. Overhanging adjacent land	Overhangs adjacent road. Ivy prevented detailed inspection and accurate stem measurement	Good	Fair	>40 yrs	Moderate	B	No works required in current site context
T5	Sycamore	<i>Acer pseudoplatanus</i>	Mature	15	1	400	No	6	2.5	4	3	2	No visual defects	Single stemmed. Vertical. Epicormic growths. Stubs	Minor deadwood. Snapped /hanging branches	Minor amount of Ivy on stem	Fair	Good	>40 yrs	Moderate	C	No works required in current site context

Tree ID	Tree Species		Maturity	Measurements				Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T6	Sycamore	<i>Acer pseudoplatanus</i>	Semi-mature	11	1	250	No	3	1	1	4.5	3.5	No visual defects	Single stemmed. Vertical. Stubs. Epicormic growths	Minor deadwood. Unbalanced to southwest	Telephone wires through western crown	Fair	Fair	>40 yrs	Low	C	No works required in current site context
T7	Sycamore	<i>Acer pseudoplatanus</i>	Early-mature	12	1	410	Yes	2	3.5	2	5.5	4.5	No visual defects	Single stemmed. Vertical. Old pruning wounds. Stubs	Minor deadwood. Slightly unbalanced to west. Old pruning wounds. Cavities	Small pile of timber stacked at base	Fair	Fair	>40 yrs	Moderate	C	No works required in current site context
T8	Sycamore	<i>Acer pseudoplatanus</i>	Mature	14	1	450	No	2.5	5	5	2	1.5	No visual defects	Single stemmed. Significant lean to east. Old pruning wounds. Stubs. Epicormic growths	Old pruning wounds. Cavities. Minor deadwood. Unbalanced to east. Overhanging adjacent land	Overhangs road	Good	Fair	20 to 40 yrs	Moderate	C	No works required in current site context
T9	Sycamore	<i>Acer pseudoplatanus</i>	Semi-mature	8.5	1	180	No	2.5	2.5	3.5	1	2.5	No visual defects	Single stemmed. Vertical. Old pruning wounds. Stubs. Epicormic growths	Old pruning wounds. Cavities. Minor deadwood	Close contact with overhead telephone wires and post. Growing close to dry stone wall	Fair	Fair	>40 yrs	Low	C	No works required in current site context
T10	Sycamore	<i>Acer pseudoplatanus</i>	Early-mature	10	1	340	No	3.5	3	4	4	3	No visual defects	Single stemmed. Vertical. Epicormic growths	Old pruning wounds. Cavities. Minor deadwood. Overhanging adjacent land	Overhangs road and street light to north	Good	Fair	>40 yrs	Moderate	C	No works required in current site context







Appendix 5:
Tree Constraints Plan

134 Genn Lane, Barnsley, S70 6NW
Ref: AWA4291

BRITISH STANDARD BS37:2012
RETENTION CATEGORIES
Definitions of these categories can be found in Appendix 2 of the report.

SCALE: 1:200	PAPER: A4
	CATEGORY A: HIGH VALUE RETENTION MOST DESIRABLE
	CATEGORY B: MODERATE VALUE RETENTION DESIRABLE
	CATEGORY C: LOWER VALUE COULD BE RETAINED
	CATEGORY U: UNSUITABLE FOR RETENTION
	RPA: ROOT PROTECTION AREA
	TREE STEM