TREE CONSULTANTS

ARBORICULTURAL REPORT

to BS 5837:2012 at:

1 St. Thomas' Road, Barnsley, South Yorkshire, S75 1HW

Prepared for:
Mr Neil Thresh
1 St. Thomas' Road,
Barnsley,
South Yorkshire,
S75 1HW

Date: *July 2021*

Reference: *AWA3878*

Institute of Chartered Foresters
Registered Consultant

Office: 0114 272 1124 Mobile: 0776 631 0880 Email: info@awatrees.com Website: awatrees.com
Union Forge, 27 Mowbray Street, Sheffield, S3 8EN. AWA Tree Consultants Limited. Company No. 8520123. Registered in England & Wales.

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1. Introduction

1.1 Instructions and Brief

1.1.1 We were instructed by Neil Thresh 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 July 2021.

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.

1.2.1 The tree positions were plotted on Ordnance Survey map base-layer using enhanced GPS technology (1-2m accuracy) and laser distance measurer.

1.2.2 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 David Miller BA (Hons), PGCE, Dip. Arb. Level 4, Arboriculturist at AWA Tree Consultants Ltd.

1.2.3 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**.

2. The Site

2.1 Location and Description

2.1.1 The site is located on the northwest edge of the town of Barnsley, in the Metropolitan Borough of Barnsley, South Yorkshire.

2.1.2 The site comprises a plot of land forming part of the garden of the adjacent residential property. It is bounded to the north by an access road. To the east, south and west are further residential properties and their gardens.

2.1.3 The approximate area of the survey is highlighted in the image below (Google Earth, 2020):



3. The Trees

3.1 Legal

3.1.1 An online search has been carried out with Barnsley Metropolitan Borough Council on 12/07/21 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 within the site are legally protected.

3.1.2 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. Statutory permission is not required for the removal of deadwood.

3.1.3 When appointing a tree surgeon, only properly qualified and experienced companies should be used, who have adequate Public Liability and Employer's Liability Insurance.

3.1.4 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 11 items of woody vegetation, comprised of 10 individual trees and 1 group of trees.

3.2.2 Of the surveyed trees: 2 trees are retention category 'B', and the remaining 9 trees and groups are retention category 'C' (explanatory details regarding the retention categories are included at Appendix 3).

3.2.3 All the significant tree cover consists of adjacent boundary trees whose crowns encroach into the site. The central area of the site contains nothing of arboricultural significance, consisting of a lawned area of garden.

3.2.4 Species diversity is limited, Sycamore and Ash are the most frequent, with occasional Leyland Cypress, Hawthorn and a Walnut.

3.2.5 Most of the trees are semi-mature with only occasional early-mature to mature trees.

3.2.6 The most visually significant tree is T10, an early-mature Ash, situated adjacent to the southern site boundary. This tree is prominent throughout the site and provides a moderate level of amenity value. However, T10 displays early symptoms of Ash dieback disease and has sustained mechanical damage on its root buttress to the south. This lowers its value and prospects.

3.2.7 The adjacent row of trees situated along the eastern side of the site (T2-T5) are a line of early-mature Hawthorn, Sycamore, Ash and Lime trees. These collectively provide moderate landscape value for screening from adjacent properties.

3.2.8 Along and beyond the south of the site are T6 to T11, consisting of Hawthorn, Cypress, Ash and Walnut. These collectively provide moderate landscape value for screening from adjacent properties.

3.2.9 Most of the Ash trees show symptoms consistent with 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.

3.2.10 Trees T3 Lime, and Walnut T9, provide some arboricultural interest, they appear in fair to good condition and have reasonable prospects.

3.2.11 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.

3.2.12 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.

3.2.13 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 T3



Photo 2: T3 to T5



Photo 3: T8 to T10



Photo 4: Base of T10.



Photo 5: T6 showing dieback.



Photo 6: T1-T5 showing minor canopy overhang.

3.4 Arboricultural Development Advice

3.4.1 The higher value retention category 'B' trees should be retained, where possible, and incorporated into any new development design. Minor pruning or crown lifting may be necessary to incorporate any potential new development.

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. However, care should be taken to avoid misplaced tree retention. Attempts to retain too many or unsuitable trees on a site can result in excessive pressure on the trees during demolition or construction work, or post-completion demands for their removal.

3.4.3 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.

3.4.4 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.

3.4.5 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.

3.4.6 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.

3.4.7 The design of the new development should consider the trees crown position 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

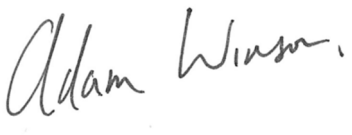
3.5.1 The retained trees may require protection by fencing in accordance with BS 5837:2012, during the development phase.

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, AIEEM.*

15th July 2021

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

www.awatrees.com

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 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 *Cert Arb L3, Level 4 Forestry and Arboriculture, 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 at Distinction Star, and was recognised as the student of the year, in the Extended Diploma in Forestry and Arboriculture and is now completing a Foundation Degree in Arboriculture, while working at AWA. 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 in both the public and private sector. Achieving a Distinction Star in the Extended Diploma in Forestry and Arboriculture allowed James to utilise this knowledge in order to inform the maintenance and wellbeing of trees across the UK over the course of his career. During his time at Darlington Borough Council, James was responsible for on-site assessment and advising of remedial works for council owned trees. 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*
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 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 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 DATA

	Tree Species			Measurements				Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*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	Hawthorn	*Crataegus monogyna*	Semi-mature	6	5	100, 120, 120, 130, 130	Yes	1	1.5	1.5	1.5	1.5	Limited access around base.	Vertical. Multiple stemmed at 1m. Old pruning wounds.	Normal. Minor deadwood.	Adjacent tree on steep banking. Limited access prevented detailed inspection.	Good	Fair	20 to 40 yrs	Low	C	No works required in current site context.
T2	Sycamore	*Acer pseudoplatanus*	Early-mature	17	5	200, 220, 220, 240, 310	Yes	6	4	4	4	4.5	Limited access around base.	Multiple stemmed at base. Vertical.	Old pruning wounds. Normal. Minor dieback. Minor deadwood.	Adjacent tree on steep banking. Limited access prevented detailed inspection.	Good	Good	20 to 40 yrs	Moderate	C	No works required in current site context.
T3	Lime	*Tilia europaea*	Early-mature	17	4	250, 250, 350, 220	Yes	4	4.5	4.5	4	4.5	Limited access around base.	Multiple stemmed at 1m. Vertical. Epicormic growths. Ivy covered.	Normal. Minor deadwood. Well developed crown.	Adjacent tree on banking. Limited access prevented detailed inspection.	Good	Good	>40 yrs	Moderate	B	No works required in current site context.
T4	Sycamore	*Acer pseudoplatanus*	Early-mature	18	5	350, 350, 300, 250	Yes	4.5	7	6	6	7.5	Limited access around base.	Multiple stemmed at base. Vertical. Epicormic growths. Ivy covered.	Normal. Minor deadwood. Well developed crown.	Adjacent tree. Limited access prevented detailed inspection. Crown extends 2.7 m into site.	Good	Good	>40 yrs	Moderate	C	No works required in current site context.
T5	Ash	*Fraxinus excelsior*	Semi-mature	8	1	250	Yes	4	5	5	5	5	Limited access around base.	Single stemmed. Slight lean. Ivy covered.	Normal. Small and unbalanced to east.	Adjacent tree. Suppressed by T4. Limited access prevented detailed inspection.	Fair	Fair	20 to 40 yrs	Low	C	No works required in current site context.

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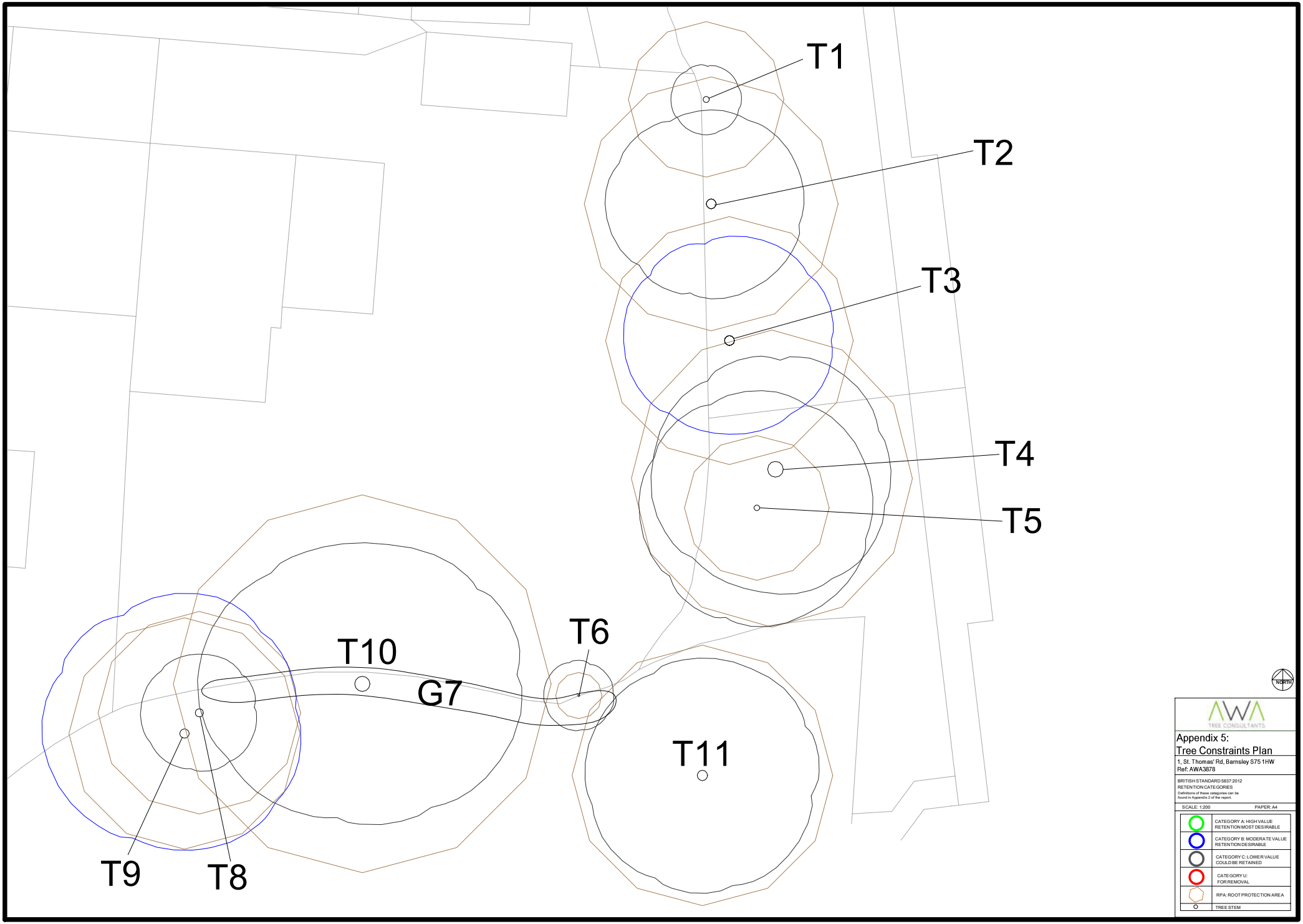
	Tree Species			Measurements				Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T6	Ash	*Fraxinus excelsior*	Young	6	1	80	No	2	1.5	1.5	1.5	1.5	Limited access around base.	Single stemmed. Vertical. Stubs and bark damage.	25% dead. Low vigour. Minor dieback. Minor deadwood.	Adjacent tree on boundary. Advanced Ash dieback symptoms.	Poor	Fair	<10 yrs	Low	**C**	No works required in current site context.
G7	Hawthorn	*Crataegus monogyna*	Early-mature	5	10	120	Yes	1.5	2	2	2	2	Shrubby Adjacent boundary hedge group of mainly Hawthorn with Cherry Laurel and Elder. Limited access prevented detailed inspection.				Fair	Fair	20 to 40 yrs	Low	**C**	No works required in current site context.
T8	Leyland Cypress	*X Cupressocyparis leylandii*	Mature	17	1	350	Yes	5	2.5	2.5	2.5	2.5	Limited access around base.	Single stemmed. Vertical. Stubs. Pruning wounds from crown lifting.	Normal. Minor deadwood. Old pruning wounds.	Adjacent tree. Crown lifted to north above garden sheds. Limited access prevented detailed inspection.	Good	Fair	20 to 40 yrs	Low	**C**	No works required in current site context.
T9	Walnut	*Juglans regia*	Early-mature	15	1	400	Yes	4	6	5	5	6	Limited access around base.	Single stemmed. Multiple stemmed at 3m. Vertical.	Normal.	Adjacent tree. Suppressed by T8. Good prospects	Good	Good	>40 yrs	Moderate	**B**	No works required in current site context.
T10	Ash	*Fraxinus excelsior*	Early-mature	18	2	500, 420	Yes	7	6	7	6	7	Limited access around base. Damage to buttress roots to north.	Twin stemmed at base. Vertical. Ivy covered.	Normal. Old pruning wounds. Minor dieback. Minor deadwood.	Adjacent boundary tree. Limited access prevented detailed inspection. Minor Ash dieback symptoms. Damage to roots.	Fair	Fair	20 to 40 yrs	Moderate	**C**	No works required in current site context.

	Tree Species			Measurements				Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T11	Leyland Cypress	*X Cupressocyparis leylandii*	Mature	18	1	450	Yes	2	5	5	5	5	Limited access around base.	Single stemmed. Vertical.	Normal.	Adjacent tree. Limited access prevented detailed inspection.	Good	Good	20 to 40 yrs	Low	C	No works required in current site context.


T1
T2
T3
T4
T5
T6
T10
G7
T11
T9
T8
NORTH
AWA
TREE CONSULTANTS
Appendix 5:
Tree Constraints Plan
1, St. Thomas' Rd, Barnsley S75 1HW
Ref: AWA3878
BRITISH STANDARD 5837:2012
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: FOR REMOVAL
RPA: ROOT PROTECTION AREA
TREE STEM