TREE CONSULTANTS

ARBORICULTURAL REPORT

& Impact Assessment

to **BS 5837:2012** at:

20 Sunlaws Street, Glossop, Derbyshire, SK13 8EQ

Prepared for:
David Garrett
20 Sunlaws Street,
Glossop,
Derbyshire
SK13 8EQ

Date: *June 2018*

Reference: *AWA2247*

Institute of Chartered Foresters
Registered Consultant

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Union Forge, 27 Mowbray Street, Sheffield, S3 8EN. AWA Tree Consultants Limited. Company No. 8520123. Registered in England & Wales.

Contents

1. Introduction

1.1 Instructions and Brief

1.1.1 We are instructed by Mr David Garrett, 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 December 2016.

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 author's 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**.

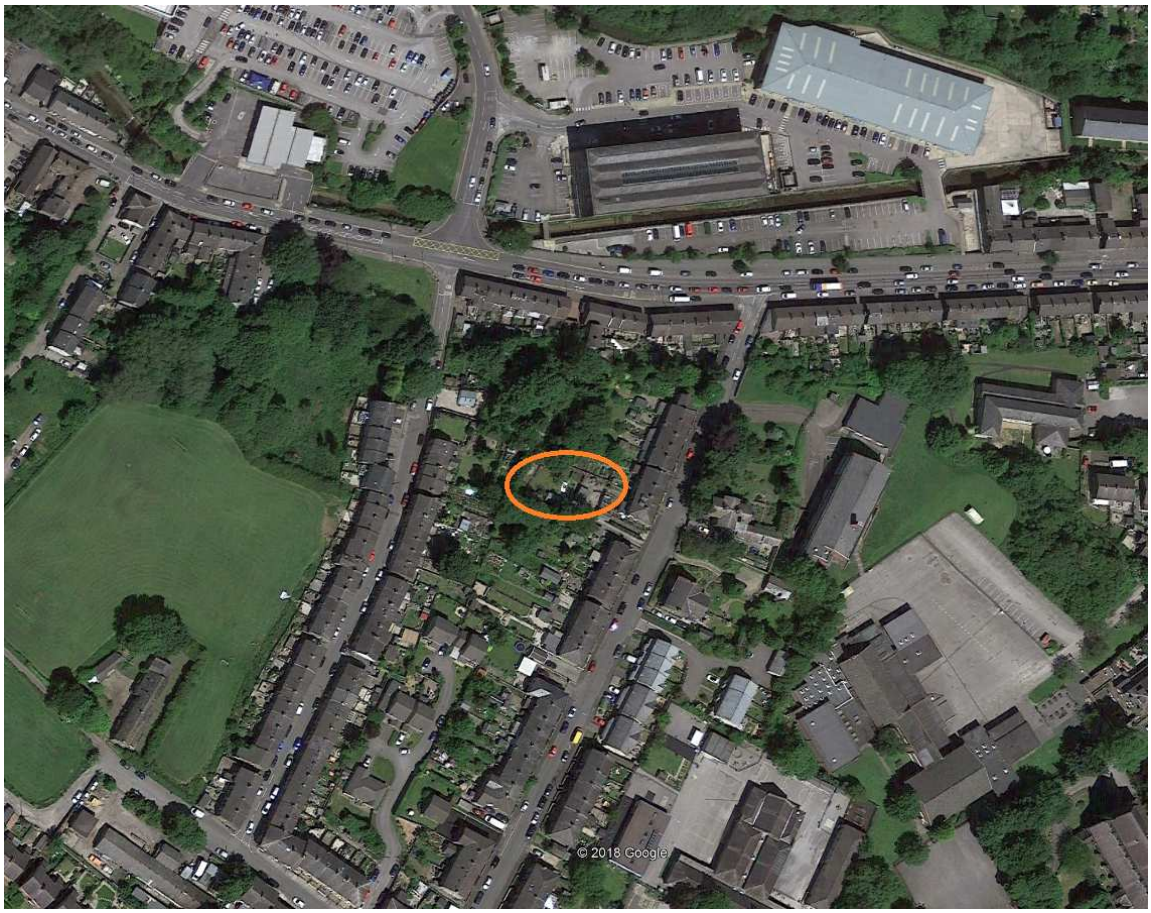
2. The Site

2.1 Location and Description

2.1.1 The site is located on Sunlaws Street in Glossop, a market town in the High Peak, Derbyshire.

2.1.2 The site is the rear garden area of a terraced residential property. There are further residential properties' gardens to the north, south and west.

2.1.3 The approximate area of the survey is highlighted in the (2017) 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 25 items of woody vegetation, comprised of 23 individual trees and 2 groups of trees or hedge groups.

3.2.2 Of the surveyed trees: 3 trees are retention category 'B'; and the remaining 22 trees are retention category 'C' (explanatory details regarding the retention categories are included within Appendix 3).

3.2.3 Species diversity at the site is good for the relatively small size of the site. The dominant tree species are Hawthorn, Ash and Willow. The sites trees had a good age diversity with a mix of young, semi-mature early-mature and occasional mature trees.

3.2.4 To the south, T1 is a mature Cherry and T3 is a mature Holly T3 which are large example of the species and are of good form and in good overall condition, providing good visual amenity value to the site.

3.2.5 Situated along the site's western boundary is a linear group of young, natural regeneration, of Ash and Sycamore saplings (T9 to T17). The trees are all in poor condition with numerous poor pruning wounds and bark damage, with many of them also growing through the adjacent fence. They offer little amenity value to the site and have limited long term value.

3.2.6 A linear group of mature Hawthorns are situated along the site's northern boundary (T18, T20, T21 and T22). They are all covered in dense Ivy and have relatively sparse crowns but form a reasonable landscape feature as a group.

3.2.7 The Lime T23 is the largest tree surveyed. It is situated on slightly lower adjacent land, beyond the site's northern boundary. Ivy and limited access prevented detailed inspection. It is prominent tree at the site and provides a moderate amount of amenity value.

3.2.8 Within the garden area trees T5, T6, T7, T19 and T24 are small, ornamental Willow, Apple, Cherry and Eucalyptus. The have been planted relatively recently, with the Eucalyptus (T24) still having a stake and tie attached. They offer limited visual amenity value and are easily replaceable.

3.2.9 A well-managed Beech hedge (G25) is situated to the side of the property, it offers a moderate amount of amenity value as an attractive boundary marker between two neighbouring driveways.

3.2.10 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.

3.2.11 The tree Root Protection Area (RPA) detailed on the Tree Constraints Plan at Appendix 5, is 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 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 dwelling with associated 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, 2 trees will require removal as they are situated in the footprint of the structure or their retention and protection throughout the development is not suitable.

4.2.2 The trees requiring removal are the Apple T5 and Cherry T6, they are both low value, retention category 'C' and their removals are of little consequence.

4.2.3 Trees will require pruning management to implement the new design proposals. The neighbouring Lime T23 will require its southern crown reducing by around 2m to facilitate the new development. The Holly T3 and Oak T4 will also likely require minor reduction works to their northern crowns. It is likely the trees will readily tolerate these works and that the visual amenity they provide will not be significantly diminished.

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 Development activities are proposed near retained trees. The proposed new building encroaches into the edge of the RPAs of trees T1, T3 and T23. If required, trial pits could be dug to determine if any significant roots are within the proposed footings, and if so, special foundation design such as mini/micro pile and suspended beam or a cantilevered foundation could be used to avoid negative impacts on the trees condition.

4.3.3 The buildability of the proposed has been assessed in terms of access, adequate working space and provision for the storage of materials, including topsoil, in relation to the trees.

4.4 Suitable Mitigation

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

4.5 Protection of the Retained Trees

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

4.5.2 If required by the Local Planning Authority, an associated Arboricultural Method Statement, detailing protective fencing specifications and construction methods close to the retained trees can be provided.

5. Signature

I trust this report provides all the required information.

Signed

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

11th June 2018

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Appendices

Appendix 1: Authors Qualifications & Experience

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

Adam 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 Arboricultural Consultant *BSc (Hons) Arboriculture. MArborA.*

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 Arboricultural Consultant. *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 Arboricultural Technician. *Ph.D, MA, BA (Hons), Cert Ed (Forestry), TechArborA.*

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 Ricky Nos Arboricultural Technician. BSc *(Hons),* FdSc *(Arboriculture), TechArborA.*

Ricky is a trained arborist with 10 years of experience in the private and local authority sectors, taking in all aspects of arboricultural work. He has a Foundation Degree in Arboriculture and a BSc (Honours) in Outdoor Management, and is a technician Member of the Arboricultural Association. His main work consists of tree surveys for development projects, involving tree inspections and the preparation of Tree Reports 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 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.

Appendix 4: Tree Data

	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*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	Cherry	*Prunus sp.*	Mature	15	1	550	No	5	6	6	6	6	No visual defects	Multiple stemmed at 2m. Vertical. Ivy covered. Stubs. Old pruning wounds.	Normal. Minor deadwood. Overhanging adjacent land.	Limited access. Situated on adjacent land.	Good	Good	20 to 40 yrs	Mod	**B**	No works required
T2	Willow	*Salix alba*	Young	3	1	50	No	0	3	1	1	1	No visual defects. Soil compaction.	Single stemmed. Slight lean. Stubs. Old pruning wounds. Bark damage. Minor cavity.	Normal. Unbalanced.	Car parked at base. Overhanging car parking area.	Fair	Fair	>40 yrs	Low	**C**	No works required
T3	Holly	*Ilex aquifolium*	Mature	11	1	360	No	2	3	4	4	4	No visual defects	Single stemmed. Vertical. Old pruning wounds. Stubs.	Normal. Overhanging adjacent land.		Good	Good	>40 yrs	Mod	**B**	Crown lift and reduce northern crown as required to facilitate development
T4	Oak	*Quercus robur*	Semi-mature	13	1	200	Yes	3	3	4	4	4	No visual defects	Single stemmed. Vertical.	Normal. Overhanging adjacent land.	Situated in adjacent garden. No access.	Good	Good	>40 yrs	Mod	**B**	No works required
T5	Apple	*Malus sp.*	Young	4	1	80	No	1	1	2	1	2	No visual defects	Single stemmed. Multiple stemmed at 1m. Vertical. Stubs. Old pruning wounds.	Normal		Fair	Good	>40 yrs	Low	**C**	Removal required to facilitate development
T6	Cherry	*Prunus sp.*	Young	4	1	100	No	2	2	2	2	2	No visual defects	Single stemmed. Multiple stemmed at 1m. at 2m. Vertical. Stubs. Old pruning wounds.	Normal		Good	Good	>40 yrs	Low	**C**	Removal required to facilitate development

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Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Dia (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiology*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T7	Willow	*Salix chrysocoma*	Young	5	1	120	No	1	3	3	3	2	No visual defects	Single stemmed. Multiple stemmed at 2m. Slight lean. Old pruning wounds. Stubs.	Normal. Minor dieback. Minor deadwood. Overhanging adjacent land.	Rubble piled at base	Good	Good	>40 yrs	Low	**C**	No works required
G8	Thuja	*Thuja plicata*	Semi-mature	3	10	50	No	0	See plan				No visual defects	Multiple stemmed at base. Vertical.	Normal		Good	Good	>40 yrs	Low	**C**	No works required
T9	Ash	*Fraxinus excelsior*	Young	5.5	1	80	No	1	2	2	2	2	No visual defects	Single stemmed. Slight lean. Bark damage.	Normal. Overhanging adjacent land.	Insignificant sapling situated in hedge	Good	Good	>40 yrs	Low	**C**	No works required
T10	Ash	*Fraxinus excelsior*	Young	7	1	90	No	3	2	2	2	2	No visual defects	Single stemmed. Vertical.	Normal. Overhanging adjacent land.	Insignificant sapling situated in hedge	Good	Good	>40 yrs	Low	**C**	No works required
T11	Sycamore	*Acer pseudoplatanus*	Young	7	1	60	No	1	1	2	2	2	No visual defects	Single stemmed. Slight lean. Stubs. Old pruning wounds.	Normal. Overhanging adjacent land. Unbalanced.	Insignificant sapling situated in hedge	Good	Good	>40 yrs	Low	**C**	No works required
T12	Sycamore	*Acer pseudoplatanus*	Semi-mature	7	1	120	No	1	2	2	2	2	No visual defects	Single stemmed. Vertical. Bark damage. Stubs. Tight union.	Normal	Growing through fence - limited long term value	Fair	Poor	10 to 20 yrs	Low	**C**	No works required

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	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Dia (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiology*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T13	Ash	*Fraxinus excelsior*	Young	5.5	1	60	No	2	2	2	2	1	No visual defects	Single stemmed. Significant lean. Bark damage.	Normal	Growing through fence	Poor	Fair	10 to 20 yrs	Low	**C**	No works required
T14	Sycamore	*Acer pseudoplatanus*	Young	8	1	110	No	2	2	2	2	2	No visual defects	Single stemmed. Vertical. Bark damage. Stubs. Old pruning wounds.	Normal. Overhanging adjacent land.	Growing through fence	Poor	Fair	10 to 20 yrs	Low	**C**	No works required
T15	Ash	*Fraxinus excelsior*	Young	8	2	90, 80	No	2	2	2	2	2	No visual defects	Twin stemmed at 0.5m. Slight lean. Old pruning wounds. Stubs.	Normal. Minor deadwood. Overhanging adjacent land.		Poor	Fair	10 to 20 yrs	Low	**C**	No works required
T16	Ash	*Fraxinus excelsior*	Young	8	2	60, 70	No	2	2	2	2	2	No visual defects	Twin stemmed at base. Vertical. Stubs. Old pruning wounds.	Normal. Overhanging adjacent land.		Poor	Fair	10 to 20 yrs	Low	**C**	No works required
T17	Ash	*Fraxinus excelsior*	Young	8	2	150, 100	No	2	3	2	3	2	No visual defects	Twin stemmed at base. Vertical. Stubs. Old pruning wounds.	Normal. Overhanging adjacent land.	Heavily pruned	Poor	Fair	10 to 20 yrs	Low	**C**	No works required
T18	Hawthorn	*Crataegus monogyna*	Early-mature	6	1	120	No	2	1	1	4	3	No visual defects. Increase in soil level	Single stemmed. Significant lean. Ivy covered.	Normal. Unbalanced.		Fair	Fair	>40 yrs	Low	**C**	No works required

	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*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	Willow	*Salix chrysocoma*	Semi-mature	1	1	120	No	0	1	1	1	1	No visual defects	Single stemmed. Vertical. Old pruning wounds. Stubs.	Normal	Willow felled to 0.5m. New growth sprouting from stem.	Poor	Fair	>40 yrs	Low	**C**	No works required
T20	Hawthorn	*Crataegus monogyna*	Mature	9	1	200	No	3	3	2	5	5	No visual defects	Single stemmed. Slight lean. Ivy covered.	Normal. Overhanging adjacent land. Unbalanced.		Fair	Good	>40 yrs	Low	**C**	No works required
T21	Hawthorn	*Crataegus monogyna*	Mature	9	1	200	No	3	3	5	5	1	No visual defects	Single stemmed. Slight lean. Ivy covered.	Normal. Overhanging adjacent land.		Fair	Good	>40 yrs	Low	**C**	No works required
T22	Hawthorn	*Crataegus monogyna*	Mature	9.5	1	250	No	6	2	2	2	2	No visual defects	Single stemmed. Vertical. Ivy covered.	Small/ sparse. Overhanging adjacent land.		Fair	Good	>40 yrs	Low	**C**	No works required
T23	Lime	*Tilia x europaea*	Mature	11	1	550	No	3	5	4	6	6	No visual defects	Multiple stemmed at 3m. Epicormic growths. Stubs. Old pruning wounds. Ivy covered. Tight union.	Normal. Minor deadwood. Overhanging adjacent land.	Situated in adjacent land. Limited access.	Good	Good	>40 yrs	Mod	**B**	Crown lift and reduce southern crown as required to facilitate development
T24	Eucalyptus	*Eucalyptus sp.*	Young	5.5	1	60	No	1	1	1	1	1	No visual defects	Single stemmed. Vertical.	Normal	Still has stake and tie	Good	Good	>40 yrs	Low	**C**	No works required
G25	Beech	*Fagus sylvatica*	Semi mature	2	1	50	No	0	See plan				Small well managed Beech hedge				Good	Good	20 to 40 yrs	Low	**C**	No works required

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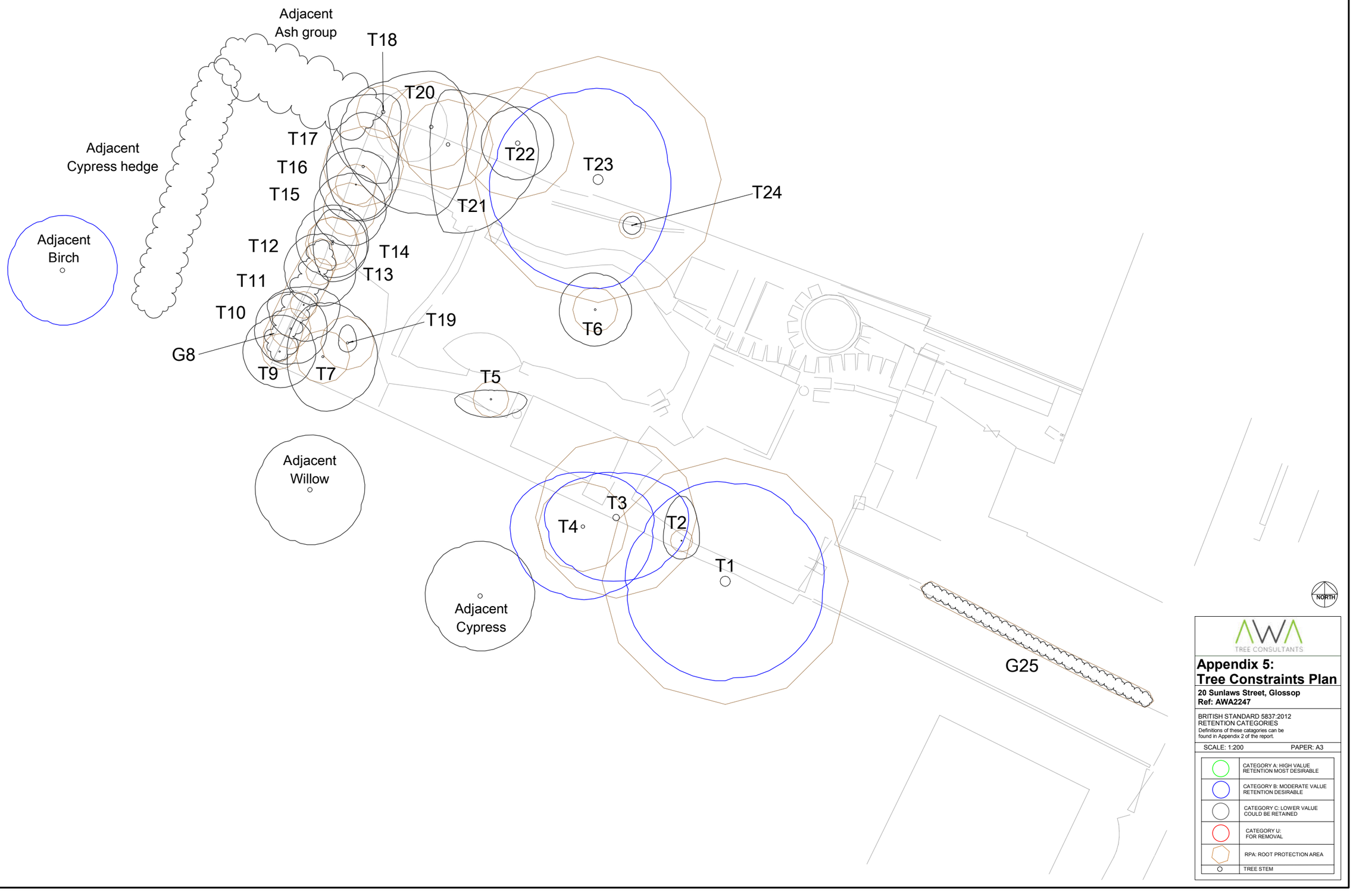

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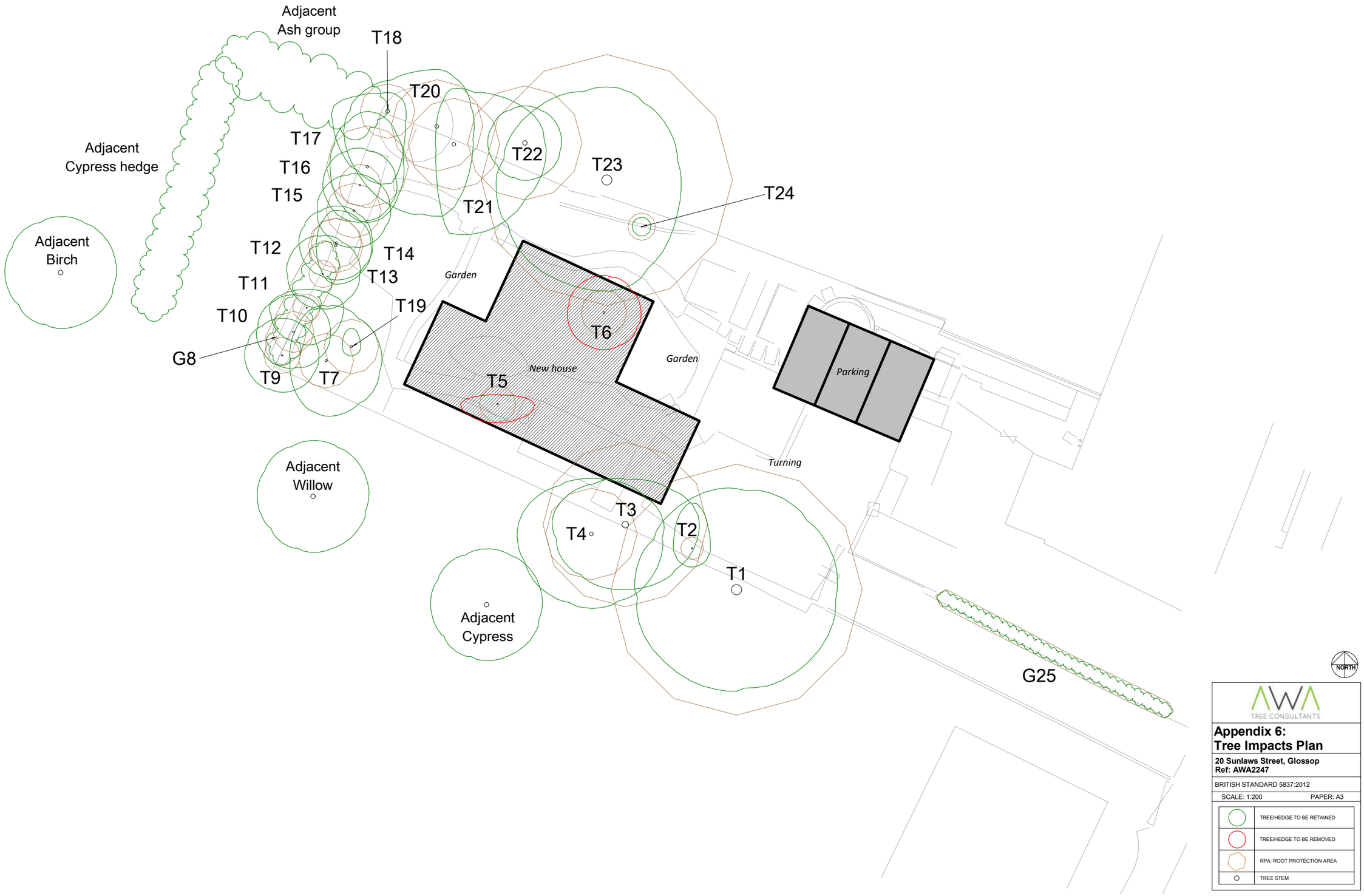
Appendix 5: Tree Constraints Plan

20 Sunlaws Street, Glossop
Ref: AWA2247

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

SCALE: 1:200 PAPER: A3

	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



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Appendix 6:
Tree Impacts Plan

20 Sunlaws Street, Glossop
Ref: AWA2247

BRITISH STANDARD 5837:2012

SCALE: 1:200 PAPER: A3

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