



ARBORICULTURAL REPORT

& Impact Assessment

to BS5837:2012 at:

***14 Callis Way,
Penistone,
Sheffield,
South Yorkshire
S36 6UH***

Prepared for:

A+DP

*The Old Police Station,
16 Bridge Lane,
Holmfirth,
West Yorkshire
HD9 7AN*

Date: *December 2018*

Reference: AWA2488



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1. Introduction

1.1 Instructions and Brief

- 1.1.1 We are instructed by Tony Stead of A+DP 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 2018.
- 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 on Callis Way in Penistone, a market town and civil parish in the metropolitan borough of Barnsley, South Yorkshire. The site is a detached residential property with gardens to the front and rear.

2.1.2 The approximate area of the survey is highlighted in the (2018) 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 6 items of woody vegetation, comprised of 3 individual trees and 3 groups of trees or hedges.
- 3.2.2 Of the surveyed trees: 2 trees are retention category 'B' and 4 trees or groups are retention category 'C' (explanatory details regarding the retention categories are included within Appendix 3).
- 3.2.3 The site's most significant trees are the Sycamores T1 and T2. Both are large mature trees which provide moderate amenity value to the site and the surrounding area. Both trees are situated in neighbouring land at the bottom of steep banking; T1 was easily accessible while T2 was only given a cursory inspection due to limited access. Both trees have occasional cavities to their main stems, with T2 appearing to have a number of moderate decayed cavities which may coalesce and may limit the tree's long term value. There also appears to be extensive ground compaction to the north of T1 which may limit its future prospects. It is recommended to remove the Ivy from the stem of T1 regardless of development at the site.
- 3.2.4 An adjacent group of Holly is situated in a neighbouring garden to the north of the site (G3). The group was only given a cursory inspection due to its adjacent inaccessible location.
- 3.2.5 Hedges G4 and G5 border the site's eastern boundary. The Beech hedge

G4 appears to have only been recently planted, while the Cypress hedge G5 is more established. The hedges provide some screening value between the site and the neighbouring residential property, but they are only of low arboricultural value.

- 3.2.6 The Rowan T6 has been heavily pruned and 'topped' in the past with numerous poor pruning wounds and stubs with decay, which may limit the tree's long term value.
- 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 extension to the western side, northern side and eastern side of the property. 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, no trees will require removal as there are no trees situated in the footprint of the development and the retention and protection of all trees throughout the development is suitable.

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. The new development encroaches close to the edge of the RPA of T1 and T2. Construction within the RPA can have negative impacts on tree roots. However, the encroachment is very minor, and the detailed RPA for these trees is likely to be a slightly exaggerated representation of the trees' actual rooting area due to the site's topography and existing retaining wall structures. As such, the retained trees should remain largely unaffected by the works, provided care is taken during construction.
- 4.3.3 The design of the new development has considered tree crown positions in relation to the new extension. 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.
- 4.3.4 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 may require protection by fencing in accordance with BS 5837: 2012, during the development phase.
- 4.4.2 If required by the Local Planning Authority, an associated Arboricultural Method Statement, detailing protective fencing specifications and construction methods close to the retained trees can be provided.

5. Signature

I trust this report provides all the required information.

Signed



.....

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

18th December 2018

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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.

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.

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.

Patrick is a trained arborist with 5 years of experience in the private and commercial sectors, both in the UK and New Zealand. Formerly a professional rugby player, Patrick was awarded a distinction in the Extended Diploma in Forestry & Arboriculture and is a technician Member of the Arboricultural Association. Patrick now uses his experience at AWA focusing on BS5837:2012 tree surveys for development projects; this involves accurate tree data collection 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 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.

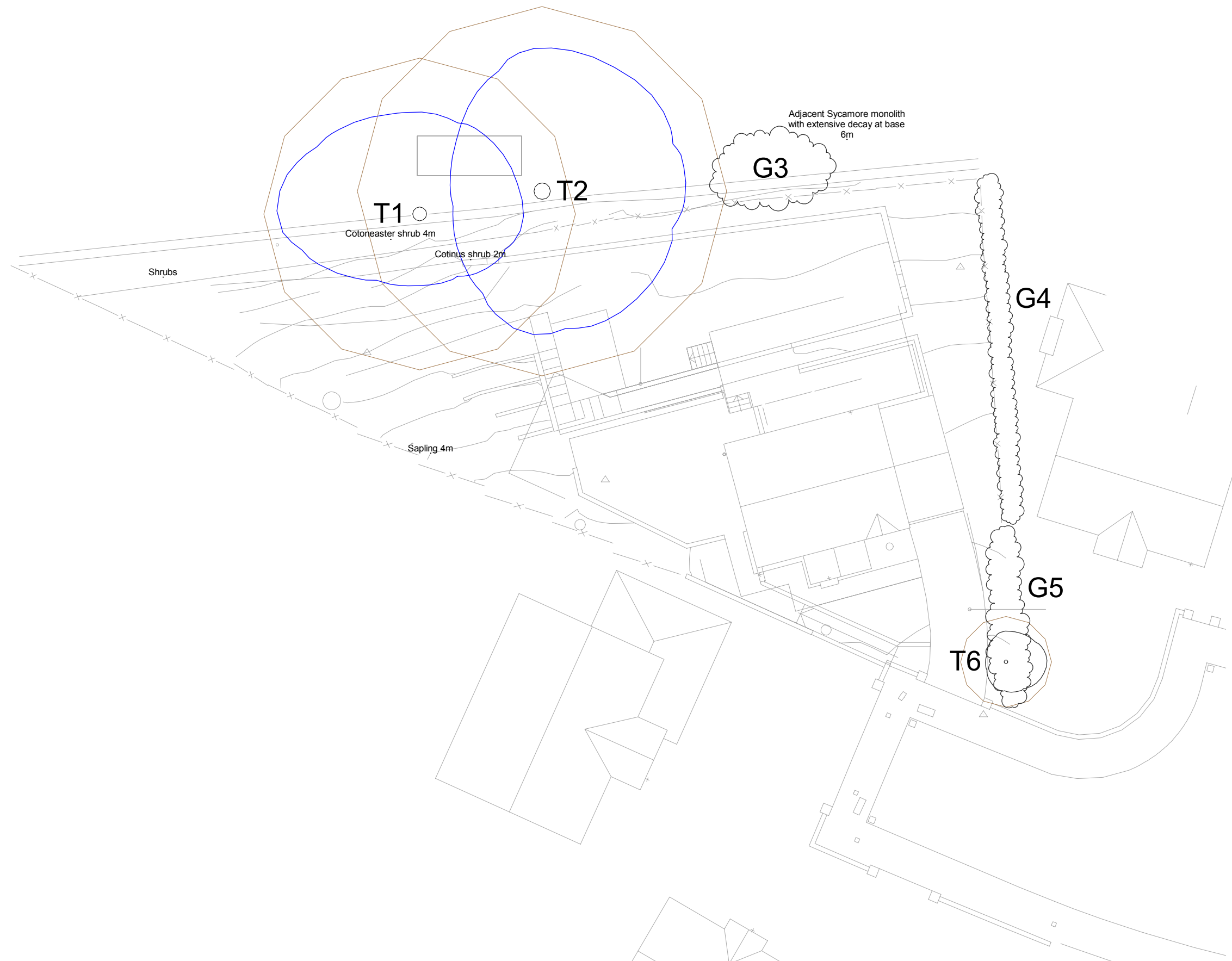
C (marked in grey on Appendix 5) = trees which could be retained. These trees are of low or average quality and value, and are in adequate condition to remain until new planting could be established.

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.

Appendix 4: Tree Data

Tree ID	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (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	18	1	640	No	3	5	5	3.5	7	Soil compaction	Single stemmed. Vertical. Ivy covered. Old pruning wounds. Minor cavities. Minor decay	Minor cavities. Minor deadwood	Adjacent but accessible. Stem and base covered in Ivy. Ivy prevented detailed inspection and accurate stem measurement. Occasional minor cavities in old pruning wounds to main stem and in crown. At bottom of steep grass banking. Rubble piled over rootplate to north causing ground compaction.	Fair	Fair	>40 yrs	Moderate	B	Remove Ivy from stem regardless of development
T2	Sycamore	<i>Acer pseudoplatanus</i>	Mature	20	1	750	Yes	5	7	7	7	4.5	Limited access around base	Single stemmed. Slight lean. Old pruning wounds. Moderate cavities. Minor decay. Epicormic growths	Minor deadwood	Adjacent, no access. At bottom of banking. Small retaining wall to south. Numerous moderate cavities with decay in old pruning wounds to main stem. May coalesce.	Fair	Fair	>40 yrs	Moderate	B	No works required
G3	Holly	<i>Ilex aquifolium</i>	Semi-mature	5	3	120, 50, 90	Yes	1.5	See plan				Limited access around base	Single and Multiple stemmed. Vertical	Normal	Adjacent, no access. Some screening value.	Good	Good	10 to 20 yrs	Moderate	C	No works required

Tree ID	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
G4	Beech	<i>Fagus sylvatica</i>	Semi-mature	3	10+	40	Yes	0.5	See plan				Limited access around base. No visual defects	Single and Multiple stemmed. Vertical. Old pruning wounds. Stubs	Minor deadwood	Adjacent recently planted Beech hedge. Some screening value.	Fair	Good	20 to 40 yrs	Moderate	C	No works required
G5	Leyland Cypress	<i>x Cupressocyparis leylandii</i>	Semi-mature	2	10+	40	No	0	See plan				No visual defects	Single and Multiple stemmed. Vertical. Tight unions	Minor dieback. Minor deadwood	Managed hedge. Some screening value.	Fair	Good	20 to 40 yrs	Moderate	C	No works required
T6	Rowan	<i>Sorbus aucuparia</i>	Semi-mature	5	1	180	No	2	1.5	2	1.5	1	No visual defects	Single stemmed. Slight lean. Old pruning wounds. Stubs. Bark damage	Old pruning wounds. Moderate deadwood	Heavily pruned and previously 'topped' at 3m.	Fair	Fair	10 to 20 yrs	Low	C	No works required



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**Appendix 5:
Tree Constraints Plan**

14 Callis Way, Penistone
Ref: AWA2488

BRITISH STANDARD 5837:2012
RETENTION CATEGORIES
Definitions of these categories 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

