TREE CONSULTANTS

ARBORICULTURAL REPORT

& Impact Assessment

to **BS5837:2012** at:

Land at

Pontefract Road
Hoyle Mill
Barnsley
S71 1HF

Prepared for:
Cars 2 Limited
Waldorf Way
Wakefield
WF2 8DH

Date: *December 2020*

Reference: *AWA3427*

Institute of Chartered Foresters
Registered Consultant

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1. Introduction

1.1 Instructions and Brief

1.1.1 We have been instructed by Cars 2 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 2020.

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 and data collection were carried out by Mr Dave Farmer FdSc (Arb), MArborA, PTI (Lantra). 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** and for detail of the impacts of the new development refer to the Tree Impacts Plan at **Appendix 6**.

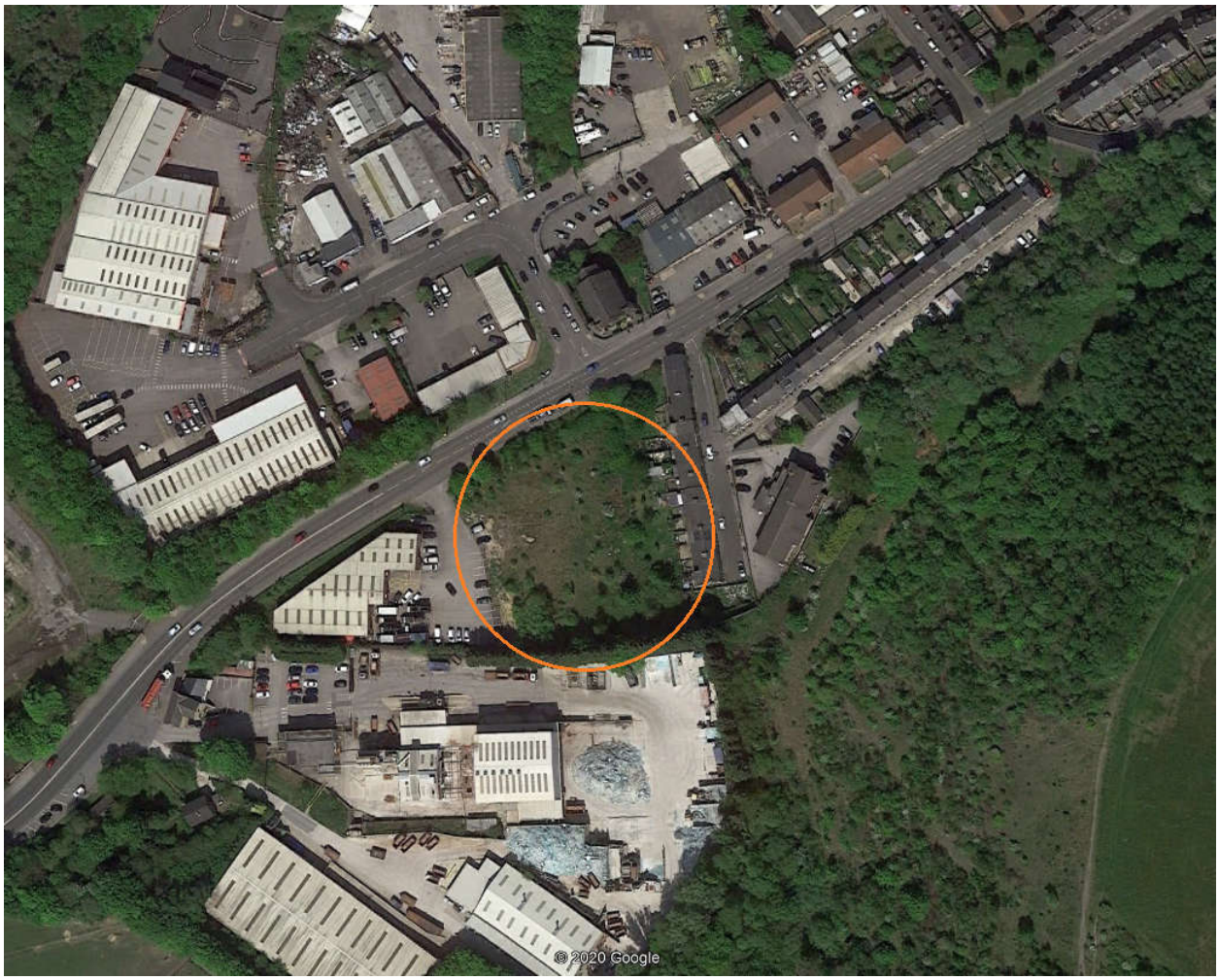
2. The Site

2.1 Location and Description

2.1.1 The site is located in the Hoyle Mill area of Barnsley in South Yorkshire, approximately 1 mile to the east of Barnsley town centre.

2.1.2 The site comprises a demolished commercial property that is currently in use as a vehicle storage yard. The site is surrounded to the north, south and west by further commercial properties and the site slopes down to a row of residential terraced dwellings to the east.

2.1.3 The approximate area of the survey is highlighted in the image below (Google Earth, 2019):



3. The Trees

3.1 Legal

3.1.1 An online search has been carried out with Barnsley Metropolitan Borough Council on 16/11/20 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 13 items of woody vegetation, comprised of 10 individual trees and 3 groups of trees or shrubs.

3.2.2 Of the surveyed trees: 1 tree is retention category 'U', and the remaining 12 trees and groups are retention category 'C' (explanatory details regarding the retention categories are included at Appendix 3).

3.2.3 The significant tree cover within the site consists of trees of varying size and condition, growing either above the retaining wall that forms the southern boundary of the site or on the embankment beyond the eastern site fencing.

3.2.4 The central area of the site contains nothing of arboricultural significance, generally consisting of open waste ground, weeds and small shrubs.

3.2.5 Species diversity at the site is fair. The dominant species is Leyland Cypress, with several Norway Maple and Sycamore, and the occasional Birch, Cherry, Dogwood, Hawthorn and Willow.

3.2.6 All of the trees are young to semi-mature apart from the larger line of early mature Leyland Cypress trees.

3.2.7 The surveyed trees are all of low individual value and should not pose any significant constraint on the future development potential of the site.

3.2.8 The large linear group of Leyland Cypress trees, G1 are close to the top of a retaining wall at the south of the site, and as such form a prominent feature with some collective value. This species is relatively short-lived, and trees can be prone to unforeseen failure as they mature. It is likely that these trees will need regular management in the future to maintain their suitability for retention. In the longer term it may be more suitable to remove them and replant this area with trees that have better prospects and are more in keeping with the surrounding landscape character.

3.2.9 The Sycamore tree, T2 is growing directly at the top of the retaining wall, with clear damage to the wall close to the stem. The tree is in a relatively poor condition and its removal is advised regardless of any future development.

3.2.10 Beyond the fence line at the east of the site are the trees and groups T4 to T13. These trees, and the shrubs that surround them, are of low arboricultural value; however, they collectively provide some screening between the site and the residential properties beyond. Large scale removals should be avoided in this area if compatible with development proposals.

3.2.11 Some trees were inaccessible (as detailed in Appendix 4). In such cases measurements were estimated and the condition values are indicative only.

3.2.12 The tree Root Protection Area (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.

3.2.13 Lower value tree and shrub groups do not have RPAs detailed on tree plans. The detailed extent and spread of these low value groups, in conjunction with the tree schedule, is sufficient to assess the associated potential constraints.

4. Arboricultural Impact Assessment

4.1 Proposed New Development

4.1.1 It is proposed to build a new commercial 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 of 9 trees and 1 tree group will be required 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 that are required to be removed are T4 to T13.

4.2.3 All of the trees to be removed are lower value, retention category 'C'. They are all relatively small, some with significant defects that are likely to limit their longer term value.

4.2.4 Although the trees to be removed are all of lower value, the quantity of removals required will have a limited negative arboricultural impact in the context of the site.

4.3 Indirect Impacts

4.3.1 The tree Root Protection Area (RPA) detailed on the Tree Plans at Appendix 5 and 6, 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. As such, no significant negative indirect impacts have been identified.

4.3.2 The design of the new development has considered the trees crown position in relation to the buildings. 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.

4.3.3 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 Suitable Mitigation

4.4.1 The development of the site provides an excellent opportunity to undertake new tree planting, particularly along the eastern and northern boundaries, as part of a soft landscaping scheme.

4.4.2 The planting of suitable new trees, that are in keeping with the surrounding landscape character and tolerant of climate change, can mitigate for the required tree removals and in the longer term improve the sites tree cover.

4.4.3 The planting of several larger nursery stock trees would provide trees with established amenity at the outset.

4.5 Protection of the Retained Trees

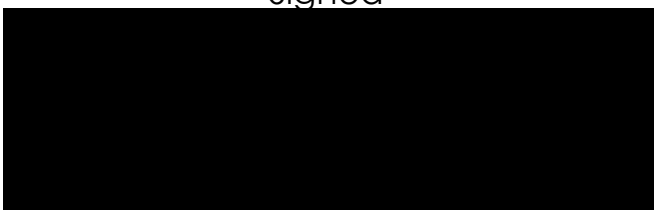
4.5.1 The retained trees may require protection by fencing in accordance with BS 5837: 2012, during the development phase.

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



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

18th December 2020

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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, 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 Tom Readman *Cert Arb L3, Level 4 Forestry and Arboriculture, TechArborA*

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.

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*
G1	Leyland Cypress	*X Cuprocyparis leylandii*	Early-mature	14	10+	200 avg	Yes	1	See Plan				No visual defects, Limited access around base	Single stemmed, Vertical, Tight union, Partially included bark	Minor deadwood	Dense linear group at the top of a 2m retaining wall above the site, behind the boundary fence. Some sections of the retaining wall have begun to collapse and the advice of a structural engineer is advised.	Good	Fair	10 to 20 yrs	Moderate	**C**	No works required
T2	Sycamore	*Acer pseudoplatanus*	Semi-mature	7	2	160, 110	Yes	0.5	2.5	2	0.5	2.5	Soil erosion, Exposed roots	Twin stemmed at base, Slight lean, Stubs	Small / sparse, Unbalanced, Minor deadwood, Snapped / hanging branches	Growing at the top of the retaining wall, leaning over parked cars within the site. Some damage to top of retaining wall at base.	Fair	Poor	<10 yrs	Low	**U**	Removal advised regardless of future development
G3	Sycamore	*Acer pseudoplatanus*	Semi-mature	11	6	150 avg	Yes	0	3.5	4	1	3.5	No visual defects, Limited access around base	Mul iple stemmed at base, Vertical, Tight union	Unbalanced, Minor deadwood	Dense group of stems growing close to top of retaining wall. No obvious signs of damage to the wall near the stems. Likely to have limited long term value.	Good	Fair	20 to 40 yrs	Moderate	**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 Diameter (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T4	Haw horn	*Crataegus monogyna*	Young	4.5	3	70, 60, 60	Yes	1.5	2	2	2	2	No visual defects	Mul iple stemmed at 1m, Slight lean, Stubs, Tight union	No visual defects	Growing beyond the site fencing, surrounded by brambles.	Good	Fair	>40 yrs	Low	**C**	Removal required to facilitate development
T5	Sycamore	*Acer pseudoplatanus*	Semi-mature	8	2	130, 110	Yes	1.5	1	2	2.5	2.5	Soil erosion	Twin stemmed at 1.5m, Vertical, Tight union	No visual defects, Unbalanced	Growing beyond the site fencing, surrounded by brambles.	Good	Fair	>40 yrs	Low	**C**	Removal required to facilitate development
T6	Sycamore	*Acer pseudoplatanus*	Semi-mature	8	2	130, 110	Yes	1.5	2.5	2	1	2.5	Soil erosion	Twin stemmed at 1.5m, Vertical, Tight union	No visual defects, Unbalanced	Growing beyond the site fencing, surrounded by brambles.	Good	Fair	>40 yrs	Low	**C**	Removal required to facilitate development
T7	Goat Willow	*Salix caprea*	Semi-mature	4	7	90 avg	Yes	0.5	4	2.5	2.5	3	Soil erosion	Mul iple stemmed at base, Vertical, Tight union	No visual defects	Growing beyond the site fencing, surrounded by brambles.	Good	Fair	>40 yrs	Low	**C**	Removal required to facilitate development
G8	Dogwood	*Cornus sp.*	Young	3	10+	50 avg	Yes	1	See Plan				No visual defects	Mul iple stemmed at base, Vertical, Stubs, Tight union	No visual defects	Dense group of stems growing beyond the site fencing, surrounded by brambles.	Good	Fair	20 to 40 yrs	Low	**C**	Removal required to facilitate development
T9	Birch	*Betula pendula*	Semi-mature	7.5	1	130	Yes	1.5	2	2	1	1.5	No visual defects	Twin stemmed at 2m, Slight lean	No visual defects	Growing on managed grass bank beyond site fencing.	Good	Good	>40 yrs	Low	**C**	Removal required to facilitate development

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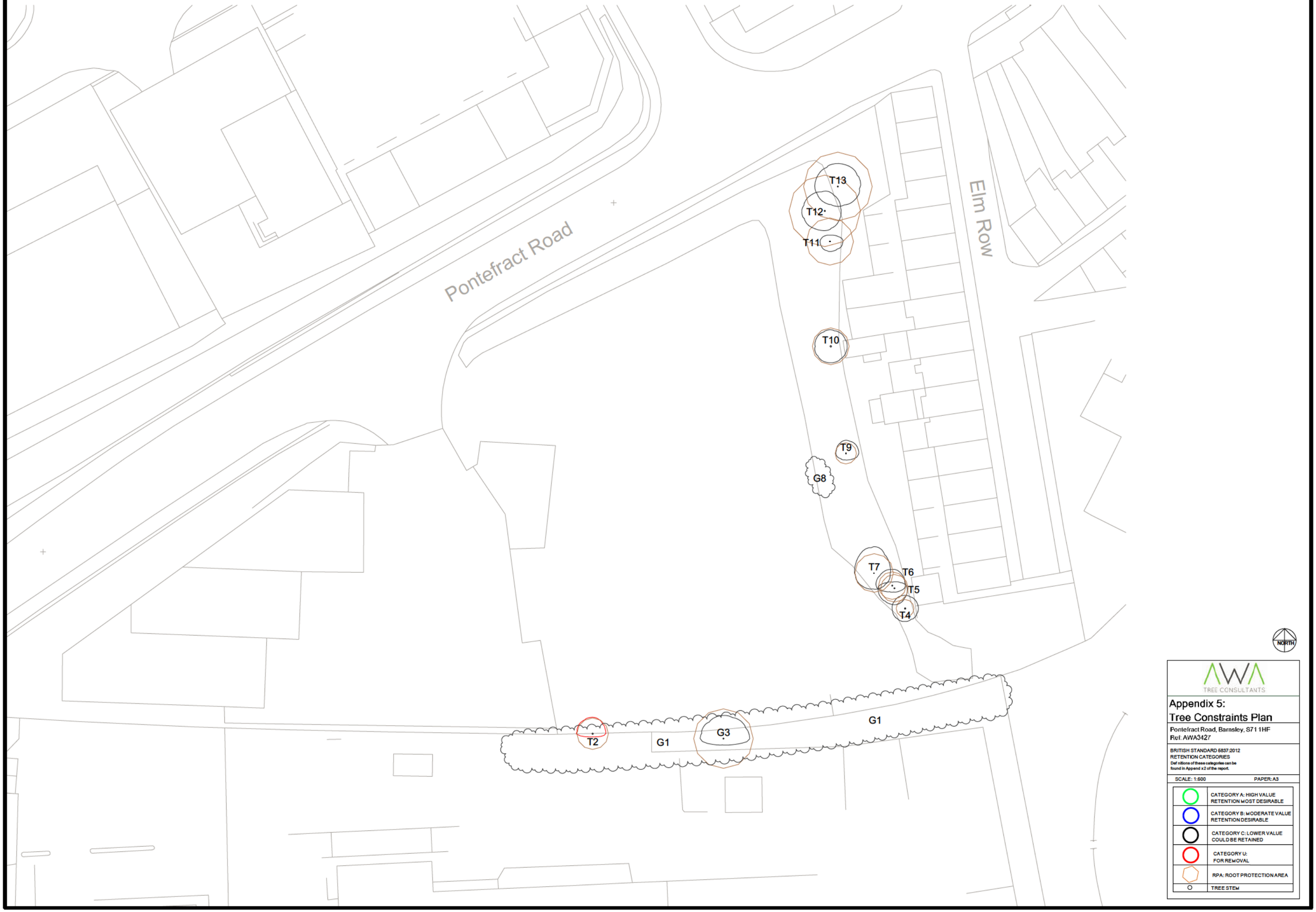
	Tree Species			Measurements				Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T10	Cherry	*Prunus sp.*	Semi-mature	9	4	130, 120, 100, 100	Yes	2.5	2.5	2.5	2.5	2.5	No visual defects, Limited access around base	Multiple stemmed, Vertical, Tight union	Minor deadwood	Growing on bank beyond the site fencing, surrounded by dense brambles & sumach shrubs. Limited visibility of base & lower stem due to surrounding foliage.	Good	Fair	>40 yrs	Moderate	**C**	Removal required to facilitate development
T11	Norway Maple	*Acer platanoides*	Semi-mature	7.5	7	110 avg	No	2	1	2	1.5	1.5	No visual defects	Mul iple stemmed at base, Vertical, Tight union, Partially included bark, Bark damage	Small / sparse, Minor deadwood		Fair	Fair	>40 yrs	Low	**C**	Removal required to facilitate development
T12	Norway Maple	*Acer platanoides*	Semi-mature	10	6	180 avg	No	1.5	3	2.5	3	3.5	No visual defects	Mul iple stemmed at base, Vertical, Old pruning wounds, Stubs, Tight union, Partially included bark	No visual defects		Good	Fair	>40 yrs	Moderate	**C**	Removal required to facilitate development
T13	Norway Maple	*Acer platanoides*	Semi-mature	8.5	7	160 avg	No	1	3.5	3.5	3	3.5	No visual defects	Mul iple stemmed at base, Old pruning wounds, Tight union, Partially included bark	Minor deadwood		Good	Fair	>40 yrs	Moderate	**C**	Removal required to facilitate development



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Appendix 5: Tree Constraints Plan

Pontefract Road, Barnsley, S71 1HF
Ref: AWA3427

BRITISH STANDARD 5837:2012
RETENTION CATEGORIES
Definitions of these categories can be found in Append x2 of the report.

SCALE: 1:500 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

Pontefract Road

Elm Row

LOW HEIGHT BOUNDARY WALLING

AMEND BANK UP FROM ROADSIDE TO BRING MAIN SITE AREA CLOSER TO BOUNDARY

AREA BETWEEN TOP OF BANK AND SITE BOUNDARY TO BE CLEARED; MAIN SITE AREA EXTENDED TOWARDS BOUNDARY; NEW BANK/RETAINING STRUCTURE TO BE FORMED DOWN TO BOUNDARY WITH 'BUFFER' PLANTING

NEW SECURITY FENCING/GATE

NEW SECURITY FENCING/GATE

EXISTING VEHICLE CROSSOVER

SECURITY FENCING

TIMBER POST AND RAIL FENCING

SITE ACCESS POINT; ENCLOSED WITH SECURITY FENCING/GATE

EXISTING SECURITY FENCING TO BOUNDARY

EXISTING HARDSTANDING AREA FOR PARKING/VEHICLE MOVEMENT

MILL TRADING ESTATE

SITE AREA WITHIN SECURITY FENCING AND ALONG ROAD FRONTAGE TO BE FINISHED WITH HARDSTANDING FOR CAR DISPLAY / PARKING - FULL SPECIFICATION TO BE AGREED

SHOWROOM

WORKSHOP

NEW SECURITY FENCING TO TOP OF REVISED BANK

NEW SECURITY FENCING TO SITE BOUNDARY

EXSITING STONE BOUNDARY/RETAINING WALL

T13

T12

T11

T10

T9

G8

T7

T6

T5

T4

T2

G1

G3

G1

12

NORTH

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Appendix 6:
Tree Impacts Plan

Pontefract Road, Barnsley, S71 1HF
Ref: AWA3427

BRITISH STANDARD 5837:2012

SCALE: 1:500 PAPER: A3

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