



ARBORICULTURAL REPORT

with Impact Assessment

To BS 5837:2012 at:

***Priory Road,
Bolton upon Dearne,
Rotherham,
S63 8AE***

Prepared For:
Mr John Duggan
*31 Furlong Court
Goldthorpe
Rotherham
S63 9PZ*

Date: *December 2016*

Reference: AWA1740



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1. Introduction

1.1 Instructions and Brief

- 1.1.1 We were instructed by Mr John Duggan, 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 please refer to the Tree Constraints Plan at **Appendix 5**.

2. The Site

2.1 Location & Description

- 2.1.1 The site is located close to the centre of Bolton upon Dearne, a small village in the Metropolitan Borough of Barnsley, South Yorkshire.
- 2.1.2 The site currently consists of an unused open grass field. To the edges of the site are occasional small saplings and one significant tree is within the site's north east corner.

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. 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 5 items of woody vegetation, comprised of 5 individual trees.
- 3.2.2 Of the surveyed trees: 1 tree is retention category 'B'; 1 tree is retention category 'U'; and the remaining 3 trees are retention category 'C' (explanatory details regarding the retention categories are included within Appendix 3).
- 3.2.3 The significant tree cover within the site consists of one large mature Ash tree (T1). Other trees are situated on or beyond the site's boundaries and are of little arboricultural significance.
- 3.2.4 The site's most significant tree is situated to the northeast of the site (Ash, T1). This tree is prominent throughout the site and surrounding area and provides a good level of visual amenity value. The trees form suggests it has previously been heavily crown reduced or pollarded, and established new growth now forms the well-developed crown.
- 3.2.5 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. The RPA for each tree has been plotted as a polygon centred on the base of the stem. Due to the past tree management, the RPA of T1 is likely to be a simplified over-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.
- 3.2.6 The trees T3, T4 and T5 are small insignificant boundary trees comprised of Holly and Hawthorn.
- 3.2.7 An adjacent tree stem (T2) has had its crown completely removed and it now consists of a pole with occasional sucker growth. While not within the site ownership it is advised that the tree is removed as it is unsuited for long term retention.
- 3.2.8 Some trees were inaccessible (as detailed in appendix 4) in such cases measurements were estimated and the condition values are indicative only.

4. Arboricultural Impact Assessment

4.1 Proposed New Development

- 4.1.1 It is proposed to build three residential properties and 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, no trees will require removal.

4.3 Indirect Impacts

- 4.3.1 Potentially damaging activities are proposed in the vicinity of retained trees. New residential developments are proposed that encroach close to and into the edge of the RPA of T1.
- 4.3.2 Due to the past tree management, the RPA of T1 is likely to be a simplified over-representation of the tree roots actual morphology and disposition. As such, significant roots are unlikely to be within the foot print of the new dwelling.
- 4.3.3 If required, trial pits could be dug at the point of the new footing to investigate for the presence and distribution of roots. If significant roots are found, then it may be possible to employ special foundation design such as mini/micro pile and suspended beam or a cantilevered foundation.
- 4.3.4 The design of the new development has considered the trees crown position in relation to the dwelling. 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.
- 4.3.5 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 excellent opportunity to undertake new tree planting throughout the site as part of a soft landscaping scheme.

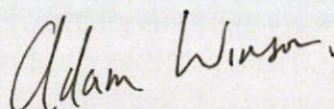
4.5 Protection of the Retained Trees

- 4.5.1 The retained trees will require protection by fencing in accordance with BS 5837: 2012, during the development phase.
- 4.5.2 The protective fencing for this site should be located as shown on the Tree Protection Plan (TPP) at Appendix 4 (as illustrated with a thick purple line).
- 4.5.3 The precise fencing location may need to be slightly adjusted on site due to local site conditions, but is not expected to differ from that shown on the TPP. The final fencing position must be agreed on by the LPA before the commencement of any site works.
- 4.5.4 The protective fencing will be appropriate to the degree and proximity of likely construction works. In this instance, the default BS5837 (2012) tree protection fencing is deemed disproportionate. It is suggested (if acceptable by the LPA) an adequate level of protection for the trees could be provided by 'Heras' type fencing, of welded mesh panels on rubber or concrete feet.
- 4.5.5 The area enclosed by the fencing is referred to as the Construction Exclusion Zone (CEZ); this area should be considered a restricted area. No pedestrians, vehicles, storage of materials, equipment or machinery should be allowed within the CEZ unless specified within this method statement. The site manager must ensure that all personnel are aware of the restrictions that apply to the fenced-off area.

4. Signature

I trust this report provides all the required information.

Signed



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

15th December 2016

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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 & Protection Plan

Appendix 1: Authors Qualifications & Experience

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

Adam is the company Director and Principle Consultant. He has a mix of the highest level academic qualifications and relevant work experience. Having worked within the tree care profession for over 20 years, and being awarded an MSc in Arboriculture and Urban Forestry, with distinction and the ICF top student award. Adam is a Chartered Arboriculturist and a Registered Consultant with the Institute of Chartered Foresters, 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, from planning appeal hearings up to Crown Court.

Mr Guy Baxter *FdSc (Arb). ND Arb. TechArborA. Associate (ICF)*

Guy joined AWA Tree Consultants at the start of 2015, after seven years work experience within the tree care profession. He has a Foundation Degree in Arboriculture and is in the final stages of a BSc (Hons) Degree in Arboriculture and Urban Forestry. He is a Technician Member of the Arboricultural Association and an Associate of the Institute of Chartered Foresters, working towards becoming a Chartered Arboriculturist. His work focuses on tree risk assessments and undertaking BS5837:2012 tree surveys for development projects; this involves tree inspections, the preparation of Tree Reports, Arboricultural Impact Assessments and Tree Protection Schemes to BS 5837:2012.

Mr James Brown *BSc (Hons) Arboriculture*

James recently joined AWA after seven years work experience, including working in Europe's largest tree nursery and Local Authority tree officer work, while a Horticultural Apprentice for Tameside Metropolitan Borough Council. James has a BSc (Hons) in Arboriculture, attaining first class honours, as well as being awarded the Institute of Chartered Forester's Student award. His main work consists of tree surveys for development projects, involving tree inspections, the preparation of Tree Reports, Arboricultural Impact Assessments and 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 green on Appendix 5) = retention most desirable. These trees are of very high quality and value with a good life expectancy.

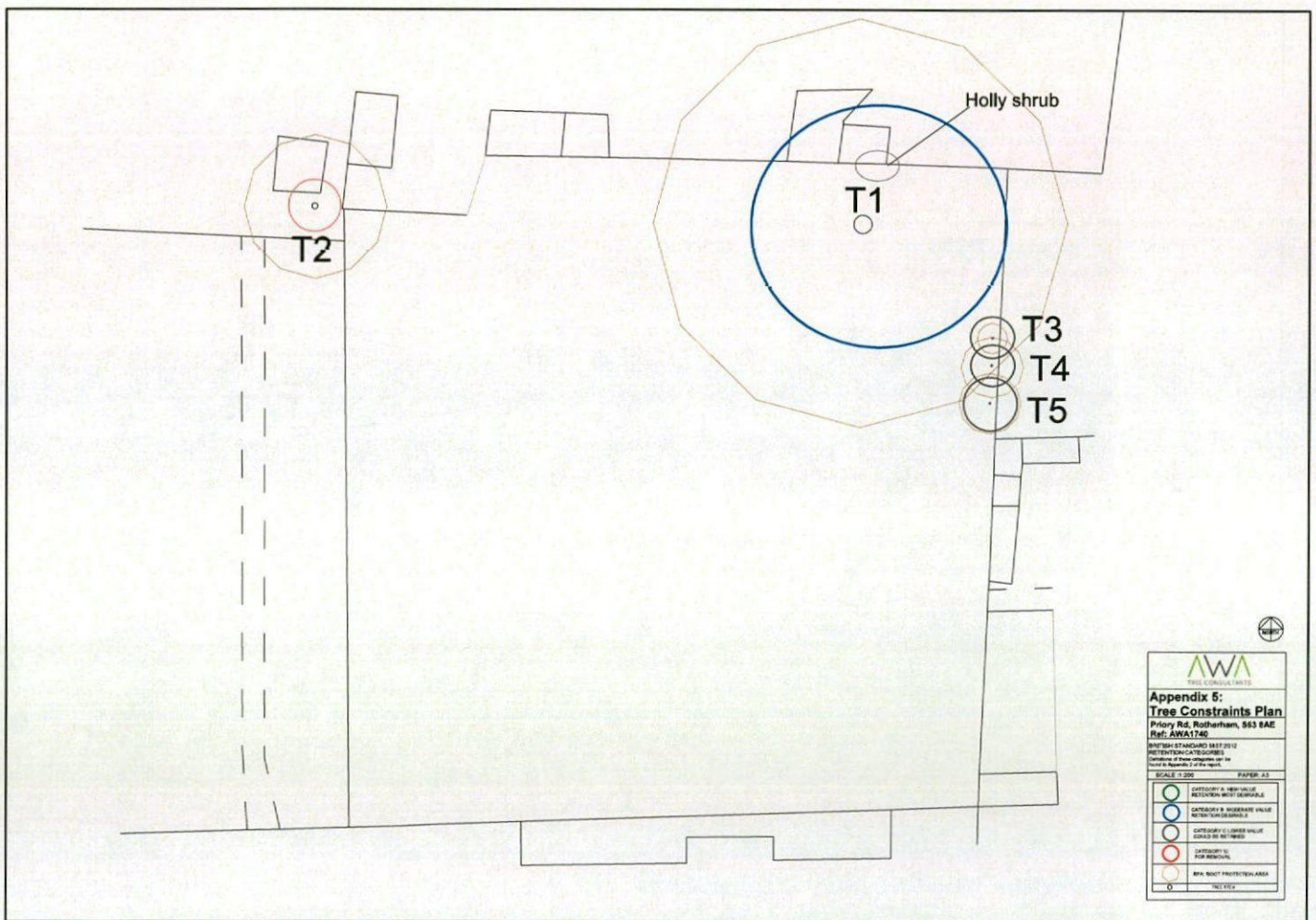
B (marked in blue on Appendix 5) = retention desirable. These trees are of good quality and value with a significant life expectancy.

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.

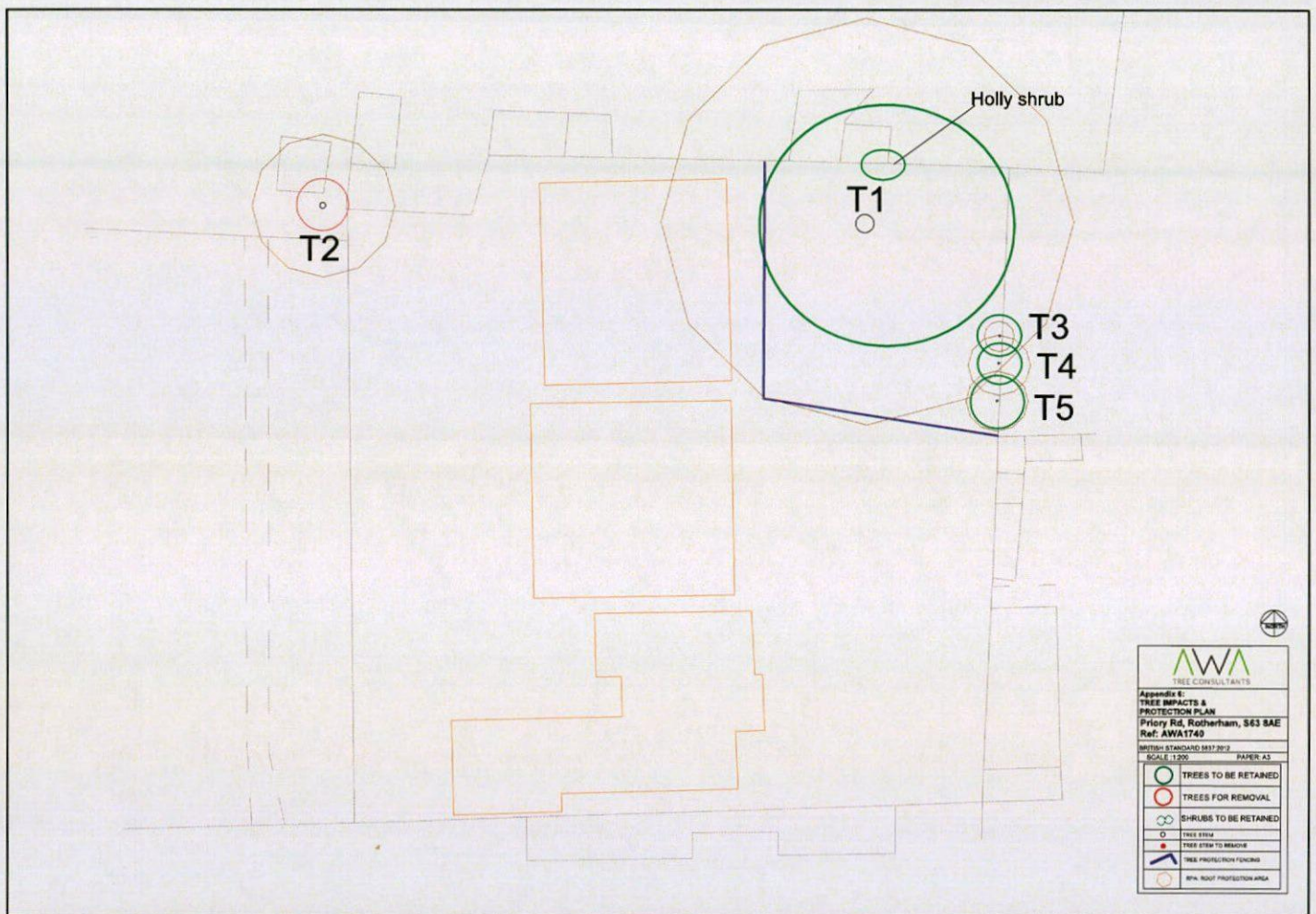
U (marked in red on Appendix 5) = trees for removal. These trees are in such a condition that any existing value would be lost within 10 years.

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	Ash	<i>Fraxinus excelsior</i>	Mature	17	1	1060	No	3	7.5	8	7.5	7	No visual defects	Old pruning wounds with minor decay. Stem widening at base. Pollarded around 10m. Now visually prominent tree. RPA likely to be exaggerated due to previous management.	Good	Fair	40+ yrs.	Mod/High	B	No action required				
T2	Ash	<i>Fraxinus excelsior</i>	Semi mature	12	1	300	Yes	0	1.5	1.5	1.5	1.5	No visual defects	Decay, old pruning wounds, bark damage. Pruning wounds. Adjacent tree. No access. No long term value.	Poor	Poor	<10 yrs.	Low	U	Advised to fall to ground level.				
T3	Holly	<i>Ilex aquifolium</i>	Young	4	1	80	No	0	1.5	1.5	1.5	1.5	No visual defects	Single Stemmed	No visual defects	Boundary tree - recently established. May cause issues with fencing	Fair	Fair	40+ yrs.	Low	C	No action required		
T4	Hawthorn	<i>Crataegus monogyna</i>	Semi mature	4	1	150	No	0	1.5	1.5	1.5	1.5	No visual defects	Single Stemmed	Minor deadwood	Boundary shrub/tree. May cause issues with fencing	Fair	Fair	10-20 yrs.	Low	C	No action required		
T5	Hawthorn	<i>Crataegus monogyna</i>	Semi mature	5	1	150	No	0	2	2	2	2	No visual defects	Single Stemmed	Minor deadwood	Boundary shrub/tree. May cause issues with fencing	Fair	Fair	10-20 yrs.	Low	C	No action required		



Appendix 5: Tree Constraints Plan Priory Rd, Rotherham, S63 8AE Ref: AWAS1746	
BRITISH STANDARD BS5837:2012 TREES IN LANDSCAPE Code of Practice for the selection, management and removal of trees in the built environment	
SCALE 1:200	PAPER A3
	CATEGORY A: HIGH VALUE RETENTION MOST DESIRABLE
	CATEGORY B: MODERATE VALUE RETENTION DESIRABLE
	CATEGORY C: LOWER VALUE CONSIDER FOR REMOVAL
	CATEGORY D: POOR CONDITION
	BSA ROOT PROTECTION AREA
0	10m



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Appendix E:
TREE IMPACTS &
PROTECTION PLAN
Priory Rd, Rotherham, S63 8AE
Ref: AWA1740

BRITISH STANDARD BS3733
SCALE: 1:200 PAPER: A3

Trees to be retained
Trees for removal
Shrubs to be retained
Tree stem
Tree stem to be removed
Tree protection fencing
80% root protection area