



Braemar Arboriculture Limited

Arboricultural Impact Assessment & Preliminary Method Statement

Relating to:

70 Vernon Road
Worsborough
Barnsley
S70 5BE

Report Ref: BALDS017-18

Date: 7th August 2018

Tree Management Consultants

Table of Contents

1 Introduction	3
2 General Description of Site	5
3 Tree Survey	7
4 Arboricultural Impact Assessment	9
5 Bibliography / References	13
Appendix 1 – Company Details & Qualifications	15
Appendix 2 – Tree Schedules	16
Appendix 3 – Protective Fencing	21
Appendix 4 - Limitations & Disclaimers	23
Appendix 5 – Glossary	24

1 Introduction

Instruction

I am instructed by: Mr P Constable of Ariya Neuro Care.

To inspect the subject tree at, 70 Vernon Road, Worsborough, Barnsley, S70 5BE

To provide an arboricultural report on the impact of development at the, afore mentioned site.

Qualifications & Experience

I have based this report on my site observations, data collected and the provided information, and have come to the conclusions in the light of my experience. I hold qualifications and have experience in the field of arboriculture and include a summary in Appendix 1.

Documents & information provided

I have been provided with the following documents, plans and information.

- Copy of existing site plan PDF/dwg
- Copy of proposed site plan PDF/dwg

Relevant background information

I understand that an application is to be made to the relevant local planning authority and that this report is a part of the application.

Methods employed

The trees were inspected on the basis of the Visual Tree Assessment (VTA) method developed by Mattheck and Breloer (1994). The trees were inspected from ground level and by climbing inspection. No ultra-sound examination was made of any of the trees. It is not always possible to access every tree and as such some measurements may have to be estimated. Trees with estimated measurements are highlighted in the tree assessment. Measurements were taken using a Leica Disto D510 laser measure which is calibrated on an annual basis, a metal probe was also employed to determine the depth of cavities. Standard tape measure and diameter tapes were also used employed where required. No samples have been removed from site for analysis. Desk top studies have been employed to determine the soils and geology of the site.

Trees were assessed and categorised in accordance with the methodologies set out in BS5837:2012.

Scope of the report

The scope of the work was to undertake a survey of trees on and immediately adjacent to the site in accordance with the methodologies in BS5837:2012 "Trees in Relation to Design, Demolition and Construction – Recommendations". This would determine the size, condition and value of trees, shrubs and hedgerows on and immediately adjacent to the site and provide recommendations for remedial work and root protective distances to ensure the future health and stability of retained trees.

Comments made in relation to tree health are reflective of its physical condition at the time of the survey. Changes in condition may occur due to external influences (e.g. construction, activities, pathogens, climatic events, etc.) and the author cannot take responsibility for changes in condition once the site visit has been completed.

2 SITE VISIT & OBSERVATIONS

Site Visit

I carried out an unaccompanied site visit on the morning of Tuesday 31st July.

Access Conditions

Access was permitted by the site agent.

Weather Conditions

The weather at the time of the inspection was dry and bright with good visibility.

Brief Site Description

The site is triangular in formation and flat in topography. The northern boundary of the site is formed of a higher ground level with the retaining wall being part of the boundary wall. The site has previously been occupied by buildings and this is evident from the tarmac drive/parking area and the previous foundation slabs.

Identification and Location of Trees

There are several trees located to the south which are in neighbouring land, there are also several trees located along the western boundary of the site in a shrub bed located between the previous car parking and the boundary wall. There is one tree located along the northern boundary.

Soils

A desk top study reveals the soils typically associated with this site are slowly permeable seasonally wet acid loamy and clayey soils of generally low fertility and impeded drainage.

A desk top study reveals the geology typically associated with this site is Pennine Coal Measures Formation – Sandstone. Sedimentary bedrock formed circa 310 – 318 million years ago in the Carboniferous Period.

Statutory Controls

I have not determined the presence of Tree Preservation Orders / Conservation Area constraints for this site. No tree works should proceed without first determining the position of such constraints.

3 Tree Survey

For the purposes of this report a total of 13 trees were surveyed

A topographic survey was provided showing the position of all the trees

In order to provide a systematic, consistent and transparent evaluation of the trees included within this survey, they have been assessed and categorised in accordance with the methodology detailed in item 4.3 of BS5837 2012.

There were no trees identified as category “A” (features of high quality), specimens or landscape features within the confines of the survey.

There are five trees identified as category “B” (features of modest quality), specimens or landscape features on or associated with the site. Tree T6 is located along the western boundary and is of good condition. Tree T7 is located in the north-west corner of the site within a raised shrub bed, the rooting pattern of the tree is restricted in all directions by the retaining wall but the tree is of good condition and provides substantial impact upon the street scene. Tree T11 is mature Sycamore tree located in adjacent ground to the south of the site. The trunk is covered in ivy growth which precluded a thorough visual inspection of the trees structure. The crown appears to be full and physiology is very good. Tree T12 is a mature Silver Birch tree located off site in the same ground as tree T11. This tree appears to be good in structure and physiology. Tree T13 is located to the south west of tree T12, This tree is of good form and physiology.

There are six trees identified as category “C” (low quality or young/small features), individual specimens and landscape features on site. Tree T2 is located in the shrub bed along the western boundary, crown growth on the western side hangs down low into the eye-line of the adjacent public footpath. Tree T3 is a self-set Ash tree, this tree is located in such close proximity to the boundary wall that its long-term retention is not feasible. Tree T4 is a Laburnum tree located in the same area as tree T3. This tree is small but offers good screening potential and can easily be retained within the context of the development. Tree T8 is a mature Sycamore tree located on the northern boundary. The tree sits within a small raised brick bed which measures circa 50cm deep. The tree leans significantly to the east with the lowest limb on the eastern side extending out to 8.5m. There is significant weight loading in this limb which is evident from the bark formation on the limb. The tree forms several stems in the lower crown, the northern most stems lean out over Osmond Drive, two of these stems have significant wounds on the stems. The wound wood development is good but there is still a significant quantity of exposed dead sapwood. Given the inherent brittle nature of Sycamore and the damage to the stems which resembles Squirrel damage there is potential for the two northern stems to fail. Failure at this point would result in the broken section falling into Osmond Drive. Removal of these stems would result in a misshapen crown, reduction would provide some re-shaping but would also result in cyclic pruning of the tree. Trees T9 and T10 are self-set trees located in the boundary fence midway along the southern boundary. These trees are young in age class but their long-term retention in this position is not tenable with the boundary fencing.

There is two trees identified as category “U” (Unsuitable for retention) trees or landscape features on or associated with the site. Tree T1 is a Holly tree located to the side of the entrance gate, the crown exhibits dieback in excess of 50%. The tree forms five trunks at around 1m from ground level, all five trunks have visible areas of decay.

Tree T5 is a Holly located along the western boundary of the site. The crown of the tree exhibits dieback in excess of 70%.

4 Arboricultural Impact Assessment

The Proposal

In this circumstance it is intended to construct C2 Residential care homes to provide residential care accommodation for 12 service users with acquired brain injuries.

Access

The site is accessed from Vernon Road using the existing access gate, existing surface treatment is tarmac which will be retained.

Demolition

The site previously accommodated buildings which have been demolished and cleared to foundation level.

Construction

Building position – The proposal will encroach upon the RPA of tree T8 if this tree is retained. All other structures are clear of RPAs.

Working Space – There is sufficient working space for operations to proceed without entering RPAs.

Excavations – All excavations can proceed using standard techniques. All excavations within close proximity of the RPA's must be strictly carried out by hand, where roots with a diameter of less than 25mm are encountered these may be pruned using appropriate tools (secateurs or pruning knife). Where roots larger than 25mm diameter are encountered they should be covered or wrapped in hessian and maintained in a damp state, advice from the project arboriculturalist should be sought.

Implications of sloping ground & levels

The arboricultural implications of the proposed structures are based on an assumption that level changes will not occur within the RPA of trees that are shown to be retained.

Services

The site is already furnished with domestic services, I understand that subject to these being of sufficient standing the existing service runs into the site will be utilised this will preclude the requirement to install new service runs into the site.

Requirements for tree barrier fencing

Prior to the commencement of construction and immediately after the completion of necessary tree surgery and tree removal, protective fencing will be erected on site. This must be fit for purpose (including any ground protection, if necessary) in full accordance with the requirements of BS5837:2012 and positioned as shown on the tree protection plan.

Storage & mixing of materials

The western side of the site accommodates the existing hardstanding area of car park, this can be utilised for the storage of materials and siting of site office/welfare units.

Prior to and during all construction works on site, no spoil or construction materials will be stored within the RPA of any tree on, or adjacent to the site, even if the proposed development is to be within the RPA. This is to minimise the compaction of tree roots. Details of the RPA for each retained tree are indicated in section 2 of this report and in the Arboricultural Implication Assessment and the Tree Constraints Plan. Any encroachment within this protected area will only be made with prior agreement from the Local Planning Authority.

Any facilities for the storage of oils, fuels or chemicals shall be sited on impervious bases and surrounded by impervious bund walls. The volume of the bund compound shall be at least equivalent to the capacity of the tank plus 10%. If there is a multiple tankage, the compound shall be at least equivalent to the largest tank, or the combined capacity of the interconnected tanks plus 10%. All filling points, vents, gauges and sight glasses shall be located within the bund. The drainage system of the bund shall be sealed with no discharge to any watercourse, land or underground strata. Associated pipe-work shall be located above ground and protected from accidental damage. All filling points and tank overflow pipe outlets shall be detailed to discharge downwards into the bund.

All material storage facilities and work areas must consider the effects of sloping ground on the movement of potentially harmful liquid spillages towards or into protected areas.

Cultural implications for trees

Tree removals

On the grounds of condition – Trees T1 and T5 are categorised as U and should be removed due to their declining physiological condition. Tree T3 is located against the boundary wall, whilst at present there is no issue with the wall, removal now would prevent any future damage or increase in cost to the land owner. Trees T9 and T10 are self-set trees located between the two boundary fences. These are both young trees and should be removed to prevent any issue or disputes in regards to boundary ownership.

To facilitate development - The proposal conflicts with the RPA of tree T8, this tree is categorised as C. There are issues with this tree and its long-term future is questionable. Removal and replanting with 3 trees to mitigate would permit development and result in new tree gain.

Tree pruning – Tree T2 should be pruned to clear the adjacent public footpath, tree T7 would benefit from a crown reduction of 30% to clear both highway and telephone lines.

Future tree removal – The proposal and retained trees provide sufficient separation as to ensure that there will be no increase in pressure for the removal of trees.

Post development Implications

Potential for direct damage by trees – The proposal provides sufficient space between retained trees and built form as to make direct damage from trees extremely unlikely.

Potential for indirect damage by trees

I have not been provided with any detailed information relating to specific soil type of plasticity index and therefore cannot comment on the potential for indirect damage as a result of soil moisture deficit.

Shading – Some shading will be experienced to the frontage of the main building in the centre of the site.

Future growth potential – The trees within the site are predominately young – early mature I age. There are opportunities within the scheme to plant several trees which could increase net tree cover and diversity within the area.

Seasonal nuisance – Some seasonal nuisance will be experienced from the trees overhanging the car park area. Trees T11 – T13 inclusive will drop leaves which undoubtedly will fall into the site. The installation of guards on gutters and downpipes will greatly reduce the impact. The site was previously occupied by buildings and the impact from trees T11 – T13 will not be any greater than was previously experienced.

Due to the dynamic nature of trees and their interaction with the environment, their health and structural integrity is liable to change over time. Because of this it is recommended that all trees on or adjacent to the site be inspected within a time period not exceeding two years, in accordance with National Tree Safety Group guidelines.

5 Bibliography / References

The following technical publications and technical references have been used by the author to produce this report, whilst we acknowledge the use of these titles a direct reference may not have been made.

Reference: Industry Guidelines

BS 5837: 2012, Trees in Relation to Design, Demolition and Construction – Recommendations, British Standards Institute.

BS 3998: 2010, Tree Work Recommendations, British Standards Institute.

BS 8545: 2014 Trees from Nursery to Independence in the Landscape – Recommendations, British Standards Institute.

Standards, (2017), National House Building Council

Trees in the Townscape – A guide for decision makers, Tree Design Action Group

Trees in Hard Landscape – A guide for delivery, Tree Design Action Group

Principles of Hazard Assessment and Management, 1999, Lonsdale D

Tree Root Systems, (1995) Dobson. M AAIS Publication Arboricultural Research Note (130/95/Arb)

The Body Language of Trees, (1995) Mattheck.C & Breloer H.

Tree Preservation Orders – A guide to the law and Good Practice (2000), DCLG

Tree Preservation Order Regulations

Trees and Development (1989) Matheny.N & Clark.J.R. ISA Publications

Geology of Britain Viewer 1:50,000, (2013), British Geological Society

Soilscape Viewer, Land information system, Cranfield University

STATEMENT OF TRUTH

I confirm that insofar as the facts stated in my report are true and that the opinions I have expressed represent my true and complete professional opinion.

END OF REPORT



Mr Richard J Allen, Director

HNC, M.Arbor.A, CAS, Lantra Professional Tree Inspection Qualified, Consulting Arborist Society – Arboricultural Mortgage Insurance and PTI accredited. LANTRA Instructor – Basic Tree Inspection

For and on behalf of **Braemar Arboriculture Limited**

Date of Report

7th August 2018

APPENDIX 1 - Company Details & Qualifications

As an arboricultural consultancy BAL are committed to delivering its clients with a consistently high level of service, providing tree reports for building development, tree risk management, mortgage / insurance providers, subsidence investigation, tree preservation orders and ultra-sound assessments of trees with the Picus Tomograph.

Richard Allen of Braemar arboriculture limited undertook this report, he holds the following arboricultural qualifications:

Qualifications.

2007 Level 4, Higher National Certificate in Woodland Management and Arboriculture
2003 Level 2, Royal Forestry Society Certificate in Arboriculture
1996 Level 3, City & Guilds Forestry Management
1992 Level 2, City & Guilds Forestry
1990 Level 1, City & Guilds Forestry

Continued Professional Development

2016 BS5837: Tree Surveying & Categorisation – Arboricultural Association
2014 Tree Pests, Disease and Fungi – Arboricultural Association
2014 Professional Tree Inspection Refresher – Arboricultural Association
2013 Pests and Disease Roadshow – Arboricultural Association
2010 Designing with Trees – Arboricultural Association
2010 Getting to Grips with Subsidence – Arboricultural Association
2009 British Standards in Arboriculture – Arboricultural Association
2009 Visual Amenity Valuation of Trees – Arboricultural Association
2007 Level 3 Accredited Professional Tree Inspector - LANTRA
2003 Trees and Mortgage / Insurance Reporting – Myerscough College

Memberships

The author holds membership of the professional organisations listed below:

The Arboricultural Association – Professional Member
Consulting Arborist Society – Professional Member



APPENDIX 2 - Tree Schedule

Tree / Hedge / Group Number:

The position of surveyed trees is marked on the accompanying site plan. To enable easy identification of trees on site I have tagged each tree with an aluminium disk at a suitable point within the lower 2.5m of the main stem.

Species

The most commonly used name is only given.

Trunk Diameter

Measured at 1.5m from the highest point of ground level at the base of the tree.

Tree Height

The top height of the tree measured in meters.

Branch Spread

The spread of the trees canopy measured to the four cardinal points of the compass

Height & direction of first branch

The height from ground level of the first significant branch and cardinal point at which it originates.

Canopy Height

The size of the full live crown.

Life stage

Recorded a one of the following categories.

- Young – Recently planted or establishing tree that could be transplanted without the need for specialist equipment, i.e. less than 150mm diameter.
- Semi Mature – an established tree, but with some growth to make before reaching its potential maximum size. A tree within its first third of lifespan.
- Early Mature – A tree that is reaching its ultimate potential height, whose growth rate is slowing down but if healthy, will still increase in stem diameter and crown spread. A tree in its second third of lifespan.
- Mature – A mature specimen with limited potential for any significant increase in size, even if healthy. A tree in its final third of expected lifespan.
- Over Mature – A senescent (declining/degradation) or moribund specimen of low vigour within its final third of lifespan. Possibly also containing sufficient structural defects with safety and/or duty of care implications.

- Veteran – Specimens exhibiting features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned.
- Dead – The tree is dead and cannot be clarified as a veteran tree. Its age up till death is of no significance

General Observation – Condition

Recorded as one of the following four categories additional specific comments will also be made where applicable.

- Good – Generally in good health typical of the species needing little, if any, attention. Few minor defects of little overall significance such as physical damage or suppressed branches. Showing no adverse risk of failure/defects.
- Fair – A tree or trees with minor but rectifiable defects or in the early stages of stress, from which it may recover. Showing minor signs of deterioration. This could include a major defect in an early life stage, or multiple minor defects. A tree that may require work to remove or improve a defect.
- Poor – A tree or trees with major structural and physiological defects or stressed such that it would be a risk to retain in its current or future known situation. Unlikely to return to a good condition given time or remedial work.
- Dead – A tree or trees no longer alive. However, this could also apply to those trees that are dying and will be unlikely to recover, or are becoming or have become dangerous.

Estimated Remaining Contribution

Expected minimum years of life.

Retention Category

Taken from BS 5837-2012

Root Protection Area

Given as a radius from the centre of the tree.

Given as an area in metres squared.

Tree No.	Species (Common Name)	Height (m)	Stem Dia. @ 1.5m (mm)	Branch Spread (m) N-E-S-W				Height of First Branch (m) and Direction	Canopy Height (m)	Life Stage. Y, SM, EM, M, OM	General Observations. Condition and Management Recommendations	Estimated remaining Contribution (Yrs) <10, 10+, 20+, 40+	Retention Category	RPA - radius (m)	RPA (m2)
T1 - 3040	Holly	6	140, 160, 130, 180, 140	2.5	2.4	1.6	2.1	2 N	4	SM	Poor - The crown exhibits die back in excess of 50% and decay is present in all five trunks.	<10	U	N/A	N/A
T2 - 3041	Norway Maple	9.5	200	2	2.5	3.3	3	1.4 N	8	SM	Good - No visible defects, low branch growth hanging low over the adjacent footpath.	10+	C	2.4	18.1
T3 - 3.42	Ash	9.5	150	2.4	2.4	1	2.7	2 S	7.5	SM	Good - The tree is located against the boundary wall.	10+	C	1.8	10.2
T4 - 3043	Laburnum	6	90, 100, 100	2.4	2.8	1.5	1.8	1.5 N	4.5	EM	Good - No visible issues.	10+	C	2	12.7
T5 - 3044	Holly	4	100, 110, 140, 150	1.5	2	1	1	1.8 S	2.2	SM	Poor - The crown exhibits die back in excess of 50%.	<10	U	N/A	N/A

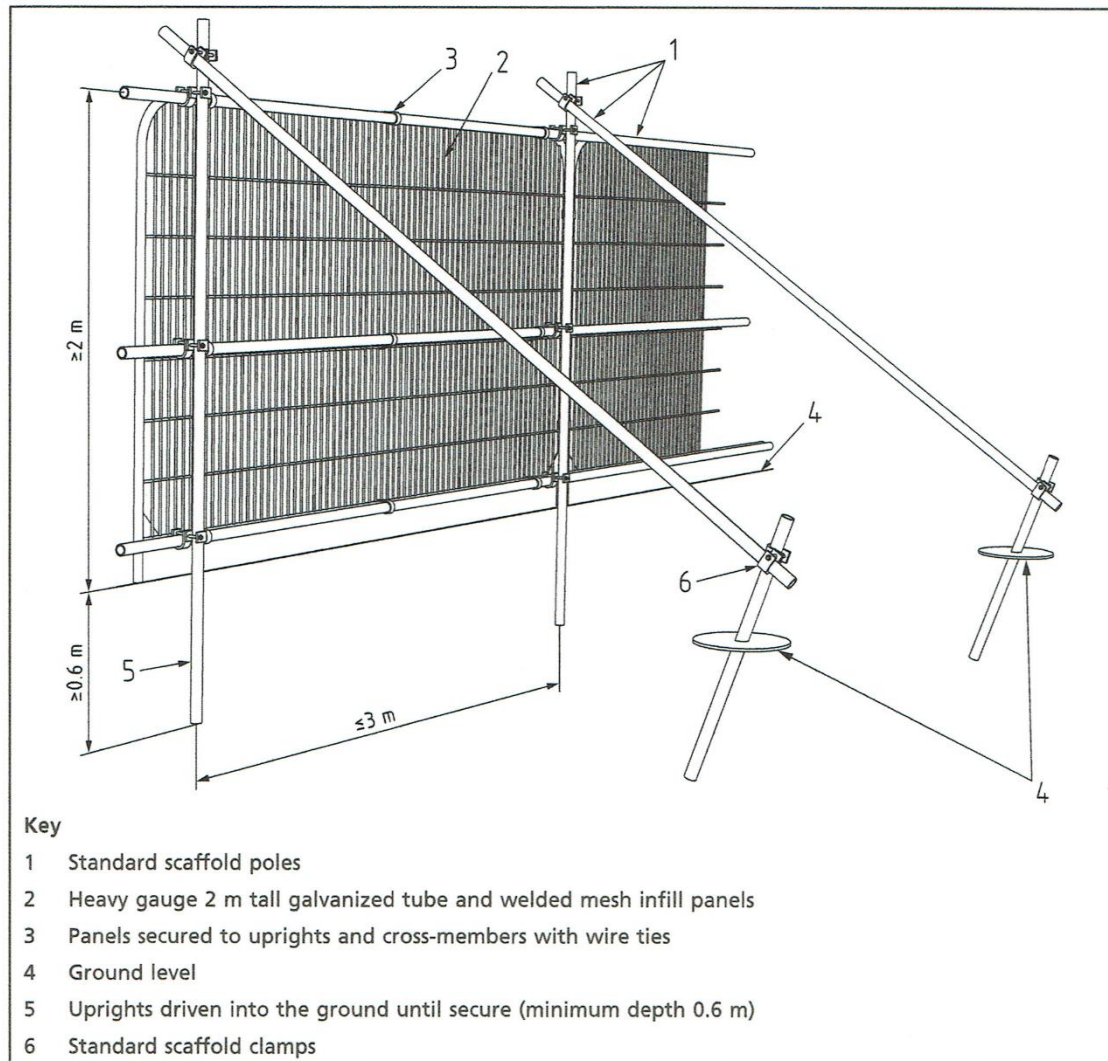
Tree No.	Species (Common Name)	Height (m)	Stem Dia. @ 1.5m (mm)	Branch Spread (m) N-E-S-W				Height of First Branch (m) and Direction	Canopy Height (m)	Life Stage. Y, SM, EM, M, OM	General Observations. Condition and Management Recommendations	Estimated remaining Contribution (Yrs) <10, 10+, 20+, 40+	Retention Category	RPA - radius (m)	RPA (m ²)
T6 - 3045	Sycamore	10	290	2.7	2.4	3.9	3	2.5 S	7.5	SM	Good - No visible issues.	20+	B	3.5	38
T7 - 3046	Silver Birch	10	400	3.8	4.3	4.2	4.7	2.5 S	7.5	EM	Good - ivy growth on trunk. Rooting restricted on all side s by retaining walls.	20+	B	4.8	72.4
T8 - 3047	Sycamore	18	680	5.5	8.5	4.5	3.6	2 E	16	M	Fair - Tree is located in a raised bed, 50cm high. The tree leans in an easterly direction with lowest limb on eastern side supporting considerable end weight. Two stems to the north of the tree with significant wounds, good wound wood development but large areas of exposed deadwood.	10+	C	8.16	2.9.2

Tree No.	Species (Common Name)	Height (m)	Stem Dia. @ 1.5m (mm)	Branch Spread (m) N-E-S-W				Height of First Branch (m) and Direction	Canopy Height (m)	Life Stage. Y, SM, EM, M, OM	General Observations. Condition and Management Recommendations	Estimated remaining Contribution (Yrs) <10, 10+, 20+, 40+	Retention Category	RPA - radius (m)	RPA (m ²)
T9	Ash	7	100, 100, 100, 100, 100	2	2	1	1	1.2 E	5.8	Y	Poor - Self-set multi trunk tree located within the boundary fence line.	<10	C	2.7	22.6
T10	Sycamore	7	120	1	1	2	1	1.8	5.2	Y	Poor - Self-set tree located within the boundary fence line.	<10	C	1.44	6.5
T11	Sycamore	16	450	4	6	5	3	3 N	13	M	The trunk is covered in ivy growth, crown appears dense and of good physiology.	20+	B	5.4	92
T12	Silver Birch	17	350	4	4	5	4	2.5 W		M	Good - No visible issues.	20+	B	4.2	55.4
T13	Sycamore	19	500	2.5	7	6	5	3 S		M	Good - No visible issues.	20+	B	6	113

APPENDIX 3 – Protective Fencing

Example of tree protection barrier fencing taken from BS5837:2012

Figure 2 Default specification for protective barrier



Sign Details

CONSTRUCTION EXCLUSION ZONE

No Entry to Unauthorised Personnel

**Entry to this area can only be undertaken
with supervision from the
Arboriculturalist.**

APPENDIX 4 – LIMITATIONS & DISCLAIMERS

The area of trees to be surveyed encompasses all of the site.

The assessment is of a preliminary nature and observations of tree condition are made following a visual ground-based inspection only and defects not visible from this level or obscured by climbing plants will not be recorded. Test-boring, ultra sound and climbing investigations do not form part of this report.

If further investigations using rope and harness or ultra-sonic decay detection are considered necessary, these will be stated in the recommendations section of the tree schedule section in Appendix 1.

It is not possible to guarantee the safety of any tree; even trees with no apparent defects can collapse or partially collapse in extreme weather conditions. Trees are dynamic, biological systems that are subject to change with age, as a result of changes to the environment or influences of man, neither the author nor Braemar Arboriculture Limited cannot take responsibility for changes in condition once the site visit has been completed.

The wildlife and Countryside Act 1981 and the Countryside Rights of Way Act 2000 provides statutory protection to birds, bats and other species that inhabit trees. This report does not make any reference to such protected species and it is therefore the responsibility of the client to seek advice from an ecologist before undertaking any of the recommended work.

If this report is altered or reformatted in any way the document will immediately become invalid.

The report is valid for the maximum period of two years from the date of signing, in the event of extreme weather conditions trees should be checked to ensure their structural integrity.

APPENDIX 5 - GLOSSARY

Arboricultural Method Statement

Methodology for the implementation of any aspect of development that is within the root protection area, or has the potential to result in loss of or damage to tree to be retained.

Arboriculturalist

A person who has, through relevant education, training and experience gained expertise in the field of trees in relation to construction.

Construction

Site-based operations with the potential to affect existing trees.

Construction Exclusion Zone

Area based on the root protection area from which access is prohibited for the duration of the project.

Root Protection Area (RPA)

Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as priority.

Service

Any above or below ground structure or apparatus required for utility provision

Note; Examples include drainage, gas supplies, ground source heat pumps, CCTV and satellite communications.

Stem

Principle above-ground structural components of a tree that supports its branches.

Structure

Manufactured object, such as a building, carriageway, path, wall, service run, and built or excavated earthwork.

Tree Protection Plan

Scale drawing, informed by descriptive text where necessary, based upon the finalized proposals, showing trees for retention and illustrating the tree and landscape protection measures.

Veteran Tree

Tree that, by recognized criteria, shows features of biological, cultural or aesthetic value that are characteristics of, but not exclusive to individuals surviving beyond the typical age range for the species concerned.

Note: These characteristics might typically include a large girth, signs of crown retrenchment and hollowing of the stem.

Professional Tree Consultants



Tree Inspections / Reports
BS5837:2012 – Arboricultural Impact Assessments
Tree Protection Plans
Arboricultural Method Statements
Hazard Tree Assessments
Picus Tomograph Assessments
Climbed Inspections

Braemar Arboriculture Limited
Unit 1.09, Cannock Chase Enterprise Centre
Walkers Rise
Rugeley Road
Hednesford
Staffordshire
WS12 0QU
Tel: 07749 068624
Email: Braemararbltd@gmail.com