

Tree Survey, Arboricultural Impact
Assessment and Tree Method Statement
To British Standard B.S. 5837: 2012
“Trees in Relation to Design, Demolition and Construction –
Recommendations

For
Land of east of 'Holly Bank Cottage',
Long Copse Lane,
Emsworth,
Havant,
PO10 7UR



Prepared by
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Date
24 November 2015

Table of Contents

Introduction	3
The Site	3-4
The Tree survey	4-6
Observations	7
Appraisal	7
Conclusions	7-8
Appendix 1 Method Statement	9-11
Appendix 2 Cellular Confinement Cross Section	12

1. Introduction

1.1 I have worked in horticulture for over forty years. I started my career as an apprentice gardener with the Royal Parks Hampton Court. I worked at Portsmouth for nine years and Fareham for two in a supervisory capacity. I then moved to Southampton Council as a Parks Officer responsible for half the city's parks and open spaces. Whilst at Southampton I wrote the detailed Grounds Contracts that have been used by many other authorities. In April 2006, I took early retirement after fifteen years with Winchester City Council as their Parks and Recreation Officer. Responsible for all grounds contracts across the Winchester District. Since my retirement, I started my own landscape design and consultancy business where I can draw on forty seven years of experience in all areas of Horticulture.

2. The Brief

2.1 I have been instructed by Mr Madgwick to carry out a Tree Survey; provide professional advice i.e. root protection areas in line with B.S. 5837:2012 and prepare a Tree Survey, Arboricultural Impact Assessment and Tree Method Statement for the land east of 'Holly Bank Cottage, Long Copse Lane, Emsworth, PO10 7UR.

3. Caveats

3.1 The information contained within this report and the tree survey plan (0344-15) are based on the proposed site layout plan drawn up by SAB Drawing and Design and my own on site measurements and I have relied on the accuracy of these drawings and measurements to compile my report and survey plan.

3.2 The trees have been surveyed and this report has been written in accordance with BS 5837:2012 Trees in relation to design, demolition and construction – recommendations.

3.3 There are two trees on the site although they are on the boundaries of the site as their RPAs encroach into the site their protection is the basis of this report. Both trees are covered by individual preservation orders placed on them by Havant Borough Council. For ease of reference I have numbered these trees T1 and T2 and plotted them on the tree survey 0344-15.

3.4 The trees were surveyed from ground level, with binoculars being used where considered appropriate. Detailed inspection including aerial investigation (climbing the tree) decay mapping, root or soil analysis was not undertaken, and deemed not to be required on visual inspection of the trees.

4. Survey Date

4.1 The trees were surveyed in accordance with BS5837:2012 on Monday 23 November 2015 the weather was sunny with a slight breeze.

5. The Site.

5.1 The site comprises of a well maintained stable block with tack room and feed store, gravel drive accessed from Long Copse Lane through a five bar gate set back from the road. It has also a fenced paddock bounded by a post and rail fence. On the western boundary stands an Oak (T1) and along its southern boundary an Ash (T2) both are covered by Tree Preservation Orders and the method of their protection during the proposed works is contained with the attached Method Statement.

5.2 The proposal is to site two mobile homes, associated car parking and storage area for two caravans with landscaping.

6. The Tree Survey

6.1 In carrying out the tree survey, the following was assessed for each tree in line with BS5837:2012 Trees in relation to design, demolition and construction – Recommendations Dimensions: height estimated to the nearest metre, crown spread, (measurements taken north/south/east/west), existing canopy height above ground level to first significant branch and stem diameter taken at 1.5m above ground level. Where measurements have been estimated due to access restrictions they are preceded with #

7. Species

7.1

TPO No	TREE REF	Common Name	Scientific Name	NO OF TREES	LOCATION
1974/T1	T1	Oak	Quercus robur	1	Western boundary with Holly Bank Cottage.
1974/T2	T2	Ash	Fraxinus excelsior	1	Southern boundary adjacent Long Copse Lane

8. Age

8.1 An estimate of the tree age is given where Y= young tree within first quarter of its life expectancy, SM = semi mature tree in its second quarter of its life expectancy EM = early mature tree within third quarter of its life expectancy. M = mature tree within final quarter of its life expectancy OM = over mature tree beyond life expectancy.

9. Condition

9.1 Tree condition summary is shown as: - Good, tree with no visible significant health defects. Fair, some visible remedial defects. Poor, serious visible structural defects or poor health.

10. Future Management Recommendations

10.1 Work required to trees for reasons of sound arboricultural management. This provides management recommendations for trees in their current context and may include the further investigation of suspected defects.

11. Retention span

11.1 Estimated remaining contribution based on species, condition and species, condition and context. The following longevity bands are used: <10; 10+ 20+ and 40+

12. Tree categorization method

12.1 Quality and value classification where:-

- Category U= Trees in such a condition that they can not realistically be retained as living trees in the context of the current land use for longer than ten years and should be removed for reasons of sound arboricultural management. Trees in this category are shown in dark red on the tree survey plan

- Category A= Trees of high quality and value and in such condition that they are likely to make a useful contribution for 40 years or more. Trees in this category are shown in light green on the tree survey plan
- B= Trees of moderate quality and value and in such a condition that they are likely to make a useful contribution for at least 20 years. Trees in this category are shown in mid blue on the tree survey plan
- C= Trees of low quality and value or of no particular merit and in such a condition that they are likely to make a useful contribution for 10 years or young trees diameter below 150mm. Trees in this category are shown in grey on the tree survey plan

12.2 Trees in the A B and C categories are also assessed under three headings (1) Mainly arboricultural qualities (2) Mainly landscape qualities (3) Mainly cultural values including conservation. Further detail on these categories can be found on page 9 Table 1 of BS 5837:2012.

Tree No	Species	Height M #	Dia at 1.5m (mm)	Crown Spread (m)	Crown Clearance (m)	Dia of RPA (m)	RPA (M sq)	Age Class	Comments Structural and physiological condition	Preliminary Management considerations	Estimated remaining contribution (Years)	Category rating
T1	Oak	#9m	900	N 6 E 6 #W 3 S 7.5	#4 E	10.80	366	M	Fair physiological condition Fair structural condition	Dead wood remove ivy	20+	B
T2	Ash	#9m	600	N 6 E 6.5 W 7 S 6	#3 S	7.20	163	EM	Fair physiological condition Fair structural condition	Dead wood remove ivy	20+	B

Estimated measurement.

13. Observations

13.1 The Oak (T1) (TPO1974/T1) which stands on the western boundary with Holly Bank Cottage will not be affected by this proposed development. The current driveway which is within its RPA has been protected previously by using a cellular confinement system therefore further protection will not be required. The tree has ivy growing into the crown and this should be removed.



T1

13.2 The Ash (T2) (1974/T2). Which stands on the southern boundary adjacent to Long Copse Lane will require protection during development works as it is proposed to site the storage area for two caravans just outside of the RPA of the Ash and two car parking spaces within the RPA. The proposal takes account of this and as shown on the Tree Survey Plan 0344-15 it identifies an area to be covered with a cellular confinement system and covered with gravel to match existing. The tree has ivy growing into the crown and this should be removed.



T2

13.3 There is scope within this proposed development to carry out further tree and shrub planting.

14. Appraisal

14.1 The siting of the two mobile homes is outside of any of the RPAs and will not affect any of the trees on the site. With the area to be used for the car parking of two cars within the RPA of T2 and the installation of a cellular confinement system as set out in the attached Method Statement and with the use of protective fencing and good working practices in line with BS 5837:2012 the proposed development will have no adverse effect on the future health and longevity of the trees.

15. Conclusions

15.1 It is concluded that it is practical and economically possible to site the two mobile homes and associated parking without detriment to the existing trees as shown on the Tree Survey Plan 0344-15. Trees to be retained can be protected by the provision of fencing in accordance with B.S.5837:2012 Trees in Relation to Design Demolition and Construction- Recommendations and the installation of a cellular confinement system.

- 15.2 The calculation of the root protection areas is recommended by British Standards B.S.5837:2012 Trees in Relation to Design Demolition and Construction-Recommendations gives the appropriate distance for protective fencing from the trees and I have indicated areas to be fenced on the attached Tree Survey Plan 0344-15.
- 15.3 For any required tree surgery, a competent arboricultural contractor should be used; Works should be carried out in accordance with B.S. 3998 "Recommendations for Tree Work" 2010

**Method Statement for protection of
Trees in line with BS5837-12
For**

**Land of east of 'Holly Bank Cottage',
Long Copse Lane,
Emsworth,
Havant,
PO10 7UR**

1. Introduction

- 1.1 This Method Statement has been prepared by Nigel Trowell on behalf of Mr Madgwick and should be read in conjunction with the submitted Arboricultural Survey Plan 0344-15
- 1.2 The Method Statement recommends that the planned development on this site is carried out in accordance with BS5837:2012 Trees in relation to design, demolition and construction – recommendations
- 1.3 The building contractor must agree to undertake tree protection to the standard advised in this Method Statement and to the satisfaction of Havant Borough Councils Tree Officer.

2. General Protection to existing trees

- 2.1 To avoid the tree roots being damaged during construction, the recommendations in BS 5837:2012 Trees in relation to design, demolition and construction must be complied with at all times. Prior to the works commencing, protection measures will be put in place and maintained for the duration of the construction works.
- 2.2 Protective fencing in the way of Heras fencing will be erected around the trees in line with the British Standard 5837:2012 and will be erected as per the distance shown on the attached Tree Survey Plan 0344-15
- 2.3 The protected area will remain out of bounds until the fencing is removed at the end of the development period. All protective fencing to clearly signed “Keep Out Restricted Area”
- 2.4 Particular care should be taken when working around the tree protected areas to avoid unnecessary damage to any roots. Roots smaller than 25mm diameter may be pruned back making a clean cut with a suitable sharp tool i.e. secateurs or hand saw. Where roots occurring in clumps or of 25mm diameter and over are found they should only be cut following consultation with an arborist. No roots should be left exposed but covered with either wet sacking or recovered with soil to prevent roots drying out.
- 2.5 No wires nails or other materials may be attached to protected trees.
- 2.6 No diesel oil, bitumen, cement or other material potentially injurious to the trees will be stacked or discharged where it could leach into the rooting zones.

- 2.7 No equipment, vehicles shall be operated, stored or parked within the root protection zone. No clean out areas will be constructed so that the material will be in or migrate to the root protection zone.
- 2.8 Roots or branches in conflict with construction work will be cut cleanly according to correct pruning methods. Any such work will be carried out in accordance with B.S.3998:2010 "Recommendations for Tree Work"
- 2.9 Levels around the existing trees and hedges will not be raised or reduced unless in compliance with the specification for trenching works and within line of British Standard 5837:2012.

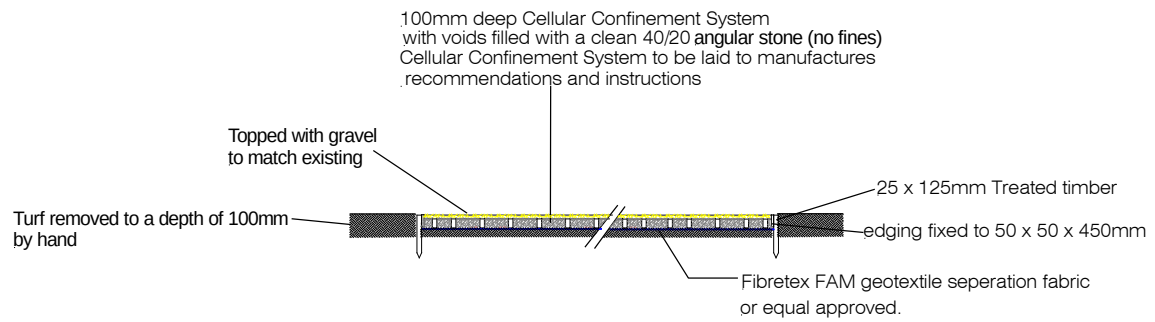
**3.0 Method Statement Site Specific for Land of east of 'Holly Bank Cottage',
Long Copse Lane, Emsworth, Havant, PO10 7UR**

- 3.1 Prior to the commencement of any works on site the Tree Officer for Havant Borough Council must have agreed all the details of the tree protection measures as specified and any other site operations that have implications for trees. It is the responsibility of the site manager to inform all employees, contractors and sub-contractors visiting and or working on the site of the details specified and to raise the importance of the tree protection measures so as to avoid causing damage to retained trees.
- 3.2 With the agreement of Havant Borough Councils Tree Officer the protective fencing in the way of Heras fencing will be erected around the trees in line with the British Standard 5837:2012 –Trees in relation to design, demolition and construction-recommendations and will be erected as per the distance shown on the attached plan 0344-15.
- 3.3 Following approval of the tree protection measures the site team can commence with the development related activities.
- 3.4 With regards the proposed area of parking within the RPA of the Ash T2 the protective fence will be moved back to the line as shown on the Tree Survey Plan 0344-15. The area will be excavated by hand to a depth of 100mm and the excavated soil used elsewhere on the site.
- 3.5 Details of a cellular confinement system are attached (Appendix 2) but for clarification purposes a non-woven geotextile filtration/separation membrane is laid beneath the system first. This will be laid onto the existing surface. Once the membrane has been laid which prevents migration of materials and also aids drainage vertically through the system the 100mm system is then laid on top. This system prevents rutting action of the sub-soils by confining infill material within the hoop structure of the panel thus increasing the infill's shear strength. The cellular system is filled with 40/20 clean angular stone. This will then be over laid with a porous binding material and overlaid with the finished agreed gravel to match existing.
- 3.6 The Tree Protection Barriers shall not be removed, breached or altered without prior written authorization from the local planning authority but shall remain in a functional condition throughout the entire development, until all development related machinery and materials have been removed from site. If such protection measures are damaged beyond effective functioning then works that may compromise the protection of trees shall cease until the protection can be repaired or replaced with a specification that shall provide a similar degree of protection. Any issues regarding tree protection should be agreed and implemented prior to commencement of development.

3.7 The tree protection measures shall not be dismantled until all construction related machinery and materials have been removed from site and not without authorization from the Havant Borough Councils Tree Officer. Once authorisation has been given the protection measures can be removed by hand and transported off site. During which time, no machinery or vehicles shall enter the area previously protected. No excavations, storage of materials, soil stripping, the raising or lowering of levels or the laying of hard surfacing without prior approval.

Nigel Trowell

24 November 2015



Typical Section Through Parking Space in RPA of Ash T1

