

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

3 Queens Road
Waterlooville
Hampshire
PO7 7SB



Prepared by

N J Trowell

Date

26 January 2016

Table of Contents

Introduction	3
The Site	4
The Tree survey	4-7
Observations	8
Appraisal	8
Conclusions	8-9
Appendix 1 Method Statement	10-11
Appendix2 Terram Geocell Tree Protection.	
Appendix 3 Terram Geocell Specification and Installation Guidance.	
Appendix 4 Fibertex[1].	

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 Cook 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 land to the rear of 3 Queens Road, Waterlooville, PO7 7SB

3. Caveats

3.1 The information contained within this report and the tree survey plan (0359-16-NJT) are based on the Topographical site survey plan produced by J Brotherton and Partners Land Surveyors and Engineers dated 29/01/2014 and the proposed site layout plan drawn by Martin Ralph and Partners Architects dated 13/01/2016 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 The proposed site has one tree to the front of the property and backs onto Park Wood which is managed by the Woodland Trust. The wood is covered by a Preservation Order No1092 placed there by Havant Borough Council.

3.4 For ease of reference I have numbered the trees T1 to T8 and plotted them on the tree survey plan 0359-16-NJT.

3.5 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 26 January 2016 the weather was overcast and windy.

5. The Site.

5.1 3 Queens Road is a 3 bedroomed detached bungalow standing in its own grounds. Access to the property is by way of a two driveway entrance off of Queens Road. The front garden has a mature Lime (T1) with the rear garden laid mainly to lawn with some out buildings. On the southern boundary to the rear of the property is a wooded area named Park Wood which is overseen by the Woodlands Trust. Preservation Order No1092.

5.2 The proposal is to build a two bedroomed bungalow with associated parking and driveway.

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
	T1	Lime	Tillia cordata	1	Front northern boundary
PO No 1092	T2	Ash	Fraxinus excelsior	1	Southern boundary within Park Wood
PO No 1092	T3	Beech	Fagus sylvatica	1	Southern boundary within Park Wood
PO No 1092	T4	Yew	Taxus baccata	1	Southern boundary within Park Wood
PO No 1092	T5	Cedar	Cedrus	1	Southern boundary within Park Wood
PO No 1092	T6	Lime	Tillia cordata	1	Southern boundary within Park Wood
PO No 1092	T7	Lime	Tillia cordata	1	Southern boundary within Park Wood
	T8	Ash	Fraxinus excelsior	1	Western Boundary

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	Lime	#12m	600	N 6.0 E 2.5 W 7.0 S 7.0	#5 S	7.20	163	M	Fair physiological condition Fair structural condition		20+	B
T2	Ash	#10m	200	N 3.0 E 4.0 W 2.0 S 3.0	#5 S	2.40	18	Y	Poor physiological condition Poor structural condition Ivy growing into the crown and leaning		10+	C
T3	Beech	#15	450	N 2.0 E 3.0 W 2.5 S 3.0	#5 E	5.40	92	EM	Poor physiological condition Poor structural condition		10+	C
T4	Yew	#9	500	N 2.0 E 4.0 W 2.0 S 4.0	#3 S	6.00	113	M	Fair physiological condition Fair structural condition		20+	C
T5	Cedar	#12	600	N 2.0 E 3.0 W 3.0 S 3.0	#3 N	7.20	163	M	Poor physiological condition Poor structural condition		20+	B

T6	Lime	#13	600	N 3.0 E 3.0 W 3.0 S 3.0	#7 E	7.20	163	M	Fair physiological condition Fair structural condition		20+	B
T7	Lime	#13	600	N 4.0 E 3.0 W 3.0 S 4.0	#5 E	7.20	163	M	Fair physiological condition Fair structural condition		20+	B
T8	Ash	#5m	125	N 2.0 E 2.0 W 2.0 S 2.0	#2 E	1.50	7	Y	Fair physiological condition Fair structural condition Has been cut back but will regenerate		20+	C

Estimated measurement.

13. Observations

- 3.1 T1 Stands in the front garden and it is proposed as part of the scheme to construct a new driveway to service the proposed new property which will need to go over the RPA of T1. It is therefore the intention to cover this area with a cellular confinement system as per the recommendations within the attached Method Statement.



T1

- 3.2 T2-T7 are along the southern boundary within Park Wood and therefore protected by Havant Borough Council Preservation Order No1092. I have made an assessment of the individual trees within the wooded area that are closest to the boundary with the site and have calculated their RPAs as single trees rather than as a group. Permission was granted to trim back the overhanging branches by Havant Borough Council and therefore no further work is required in the near future.



Southern Boundary



Southern Boundary

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

14. Appraisal

- 14.1 The position of the proposed new bungalow is outside of the root protection areas of all of the protected trees and therefore no trees will be lost during the construction with almost a negative impact on the trees to such an extent that there will be 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 build this two bedroomed bungalow with associated driveway and parking without detriment to the existing trees as shown on the Tree Survey Plan 0359-16-NJT. Trees to be retained can be protected by conforming to B.S.5837:2012 Trees in Relation to Design Demolition and

Construction- Recommendations and the installation of a cellular confinement system within the RPA of T1.

- 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 as shown on the Tree Survey Plan 0359-16-NJT.
- 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

3 Queens Road
Waterlooville
Hampshire
PO7 7SB

1. Introduction

- 1.1 This Method Statement has been prepared by Nigel Trowell on behalf of Mr Cook and should be read in conjunction with the submitted Arboricultural Survey Plan 0359-16-NJT
- 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, this Method Statement must be agreed in writing by the Havant Borough Councils Tree Officer.
- 2.2 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.
- 2.3 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 No wires nails or other materials may be attached to protected trees.
- 2.5 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.
- 2.6 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.

2.7 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"

2.8 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 3 Queens Road, Waterloooville, PO7 7SB

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 Prior to bringing materials on site the driveway area within the RPA of T1 will have been installed using a cellular confinement system. 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 finished with an agreed porous surface as confirmed by the LPA.

3.3 Following of the installation of the cellular confinement system the tree protection measures will be put in place after such time the site team can commence with the development related activities.

3.4 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.

3.5 The tree protection measures shall not be dismantled until all construction related machinery and materials have been removed from site.

Nigel Trowell

26 January 2016