

Title:

Arboricultural Impact Assessment and Method Statement

Date:

2 November
2016

Proposal:

Extensions and alterations to the existing dwelling

Ref:

DS/22516/AL

Address:

33 Church Road
Hayling Island
PO11 0NN

Client:

Kenn Wilson

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1.0 Terms of Reference

- 1.1 Treecall Consulting is instructed by Kenn Wilson to survey the trees at 33 Church Road, Hayling Island and produce an arboricultural impact assessment and method statement for proposed development.

2.0 Report Limitations

- 2.1 The guidance in British Standard 5837:2012 'Trees in relation to design, demolition and construction - Recommendations' has been used to appraise the likely impacts of the proposed development on the existing trees and determine appropriate tree protection measures.
- 2.2 This report is based on my experience and knowledge in arboriculture, details of which are in Appendix 1. Only the trees referred to in Appendix 3 were noted.
- 2.3 The information in this report covers only the trees that were inspected and is an assessment of their condition on that date. All observations were from ground level and no samples of trees or soil were taken. No internal investigations of the trees were carried out and no decay diagnostic devices were used.
- 2.4 The report is for the sole use of the client and was produced in line with the terms of reference. It should not be used for any other purposes or by any other parties.

3.0 Introduction

3.1 Information Provided

- 3.1.1 The following information was provided by Kenn Wilson to aid in preparing this report and is assumed to be accurate;

Drawing Title	Drawing Number	Date
Proposed Outbuilding	16/25/1	August 2016
Existing Survey - Elevations	16/26/2	May 2016
Existing Survey	16/26/1	May 2016
Proposed Elevations	16/26/4	August 2016
Proposed Floor Plans	16/26/3	May 2016

3.2 Site Inspection

- 3.2.1 I visited the site on 20 October 2016. Weather conditions were clear, dry and calm. Visibility was reasonable.

3.3 Brief Site Description

- 3.3.1 The site is rectangular in shape and sits in the corner between Church Road and Katrina Gardens. It stands on level ground and in the centre is a detached residential building. Near the western boundary is an existing timber-framed outbuilding. The trees are situated in the western portion of the site with some located on adjacent land.

3.4 The Proposals

- 3.4.1 The layout shows the existing garage demolished and the dwelling extended to the north, east and south. A new sunroom is proposed on the western side of the dwelling. The existing outbuilding forms part of the proposed development (retrospective planning permission) due to its proximity with the site boundary.

3.5 Statutory Tree Protection

- 3.5.1 It is reported by the client that the trees on the site are protected by a tree preservation order (TPO). This information must be verified with the LPA before any tree work is planned or implemented.
- 3.5.2 Proposed work to any tree which is protected by a TPO must be submitted as an application to the LPA. The application process takes up to eight weeks and the LPA then issue a decision granting or refusing consent as they consider appropriate.
- 3.5.3 If the tree protection situation changes at any time the LPA will issue a new document. If this happens please notify Treecall Consulting so that we can update our records and provide appropriate advice.
- 3.5.4 Work to trees that is required as part of a planning consent does not, generally, need to go through this formal procedure. The planning consent takes precedence over these other planning controls.

4.0 Tree Survey Findings

- 4.1 Four individual trees and one tree group were inspected on or adjacent to the site and plotted on plan TC1, Appendix 2. All trees were categorised according to the system set out in British Standard 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.
- 4.2 British Standard 5837:2012 'Trees in relation to design, demolition and construction - Recommendations' provides a classification of trees according to the value of each in providing a positive feature on the site at an acceptable risk. The classification allows very good trees to be identified as 'A' category trees and 'B' category trees as those which are of slightly impaired condition but still of good quality.

- 4.3 'C' category trees are those of low quality that could be retained but are not of sufficient value to be appropriate constraints on proposals for the site; 'U' category trees are identified as those that have less than 10 years' worthwhile life left.
- 4.4 The English oaks, T1 & T2, silver birch, T3, and yew trees, T5g, are in the 'B' category. The ash, T4, is in the 'C' category. Details of all these trees are included in Appendix 3.

5.0 Arboricultural Impact Assessment

- 5.1 The arboricultural impacts overleaf have been identified by adding details of the surveyed trees onto the proposed layout plan, which is included as plan TC1, Appendix 2, and by considering the proposed changes, both in their design and implementation. The impacts must be read in conjunction with Appendix 4 (Arboricultural Method Statement) of this report.

5.2 Arboricultural Impacts Table:

Operation	Impact	Trees affected	Mitigation
Construction of proposed sunroom	Damage to tree roots from construction activities.	T1, T2	Install tree protection fencing and temporary ground protection in the location shown on plan TC1, Appendix 2 to keep disturbance at an acceptable distance from retained trees. Use specialist foundations and internal floor to reduce damage to tree roots.
Other development activities	Soil compaction or contamination. Physical damage to stems, branches and roots.	All retained trees	Erect tree protection fencing and temporary ground protection to protect open ground within root protection areas. Locate site cabins, welfare facilities, cement mixing and material storage in areas shown on plan TC1, Appendix 2.
Excavations for underground services	Physical damage to tree roots.	All retained trees	Locate all services beyond tree root protection areas. Include project arboriculturist in planning of routes onto site for new services.
Tree surgery	Damage to trees from pruning. Impact on public amenity.	T2	Prune lateral branches, growing towards the existing building by a maximum of 2m. Damage to branches can be reduced to acceptable levels by following the guidance in BS 3998:2010. This work needs to be done regardless of the proposed development.

5.2 Appraisal

- 5.2.1 Implementation of the proposed development will not result in the removal of any trees. The lateral branches extending to the east on the English oak, T2, need to be pruned to provide a sufficient clearance from the proposed dwelling, regardless of the development proposals. Pruning these branches by 2m will result in some small diameter pruning wounds, but is unlikely to have a significant impact on tree health and amenity.
- 5.2.2 The footprint of the proposed sunroom encroaches into the root protection area of the English oaks, T1 & T2. This small area amounts to less than 3% of the total unsurfaced area identified and can be offset within the open ground around the trees. By using specialist foundations, in conjunction with a suspended internal floor, the impact on tree health and amenity can be kept to acceptable levels.
- 5.2.3 The existing timber-framed outbuilding has been constructed recently. The building encroaches within the root protection areas of the English oak, T1, silver birch, T3, and ash, T4. The building has been constructed using a pad and beam foundation and does not appear to have had resulted in any significant damage to trees.

6.0 Conclusion

- 6.1 Construction of the proposed sunroom and extensions could affect tree health if not carried out carefully. Providing the arboricultural method statement (included in Appendix 4) is followed throughout construction, damage to trees can be reduced to acceptable levels. The proposed scheme is unlikely to have a detrimental impact on amenity.



Andy Luddington

Dip Arb L6 (ABC), Tech Cert (ArborA), NDF (Btec), MArborA

Arboricultural Consultant



Appendix 1: Qualifications and Experience

Andy Luddington

Dip Arb L6 (ABC), Tech Cert (ArborA), NDF (Btec), MArborA

Andy has achieved the Awarding Body Consortium Level 6 Diploma in Arboriculture, which is endorsed by the Royal Forestry Society and is the premier qualification within the arboricultural profession. He also holds the Arboricultural Association Technician's Certificate in Arboriculture, the BTEC National Diploma in Forestry and the LANTRA professional tree inspection certificate. He is a Professional member of the Arboricultural Association.

He has worked in the arboricultural industry for 15 years, starting in 2001 as a climbing arborist with an Arboricultural Association approved tree contractor based in the New Forest.

Between 2003 and 2012 he worked for Southampton City Council, New Forest District Council and the Borough of Poole where he gained valuable experience in managing council owned trees, making and administering tree preservation orders, consulting on development proposals and attending court as an expert witness.

In 2012 Andy joined Treecall Consulting as an Arboricultural Consultant bringing his public-sector planning and enforcement expertise to the private sector.

The information presented in this report is based on the information provided and site observations. Conclusions and recommendations are the result of experience within the arboricultural industry.



Appendix 2: Plan TC1

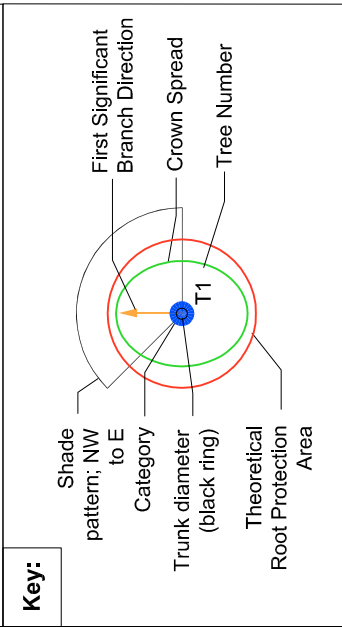
Plan TC1

Title: Plan TC1, Tree Protection Plan
Date: 2 November 2016
Scale: 1:200 @ A3



Site:	33 Church Road, Hayling Island
TC Ref:	DS/22516/AL
Title:	Plan TC1, Tree Protection Plan
Date:	2 November 2016
Scale:	1:200 @ A3

Trees to be removed:
None.

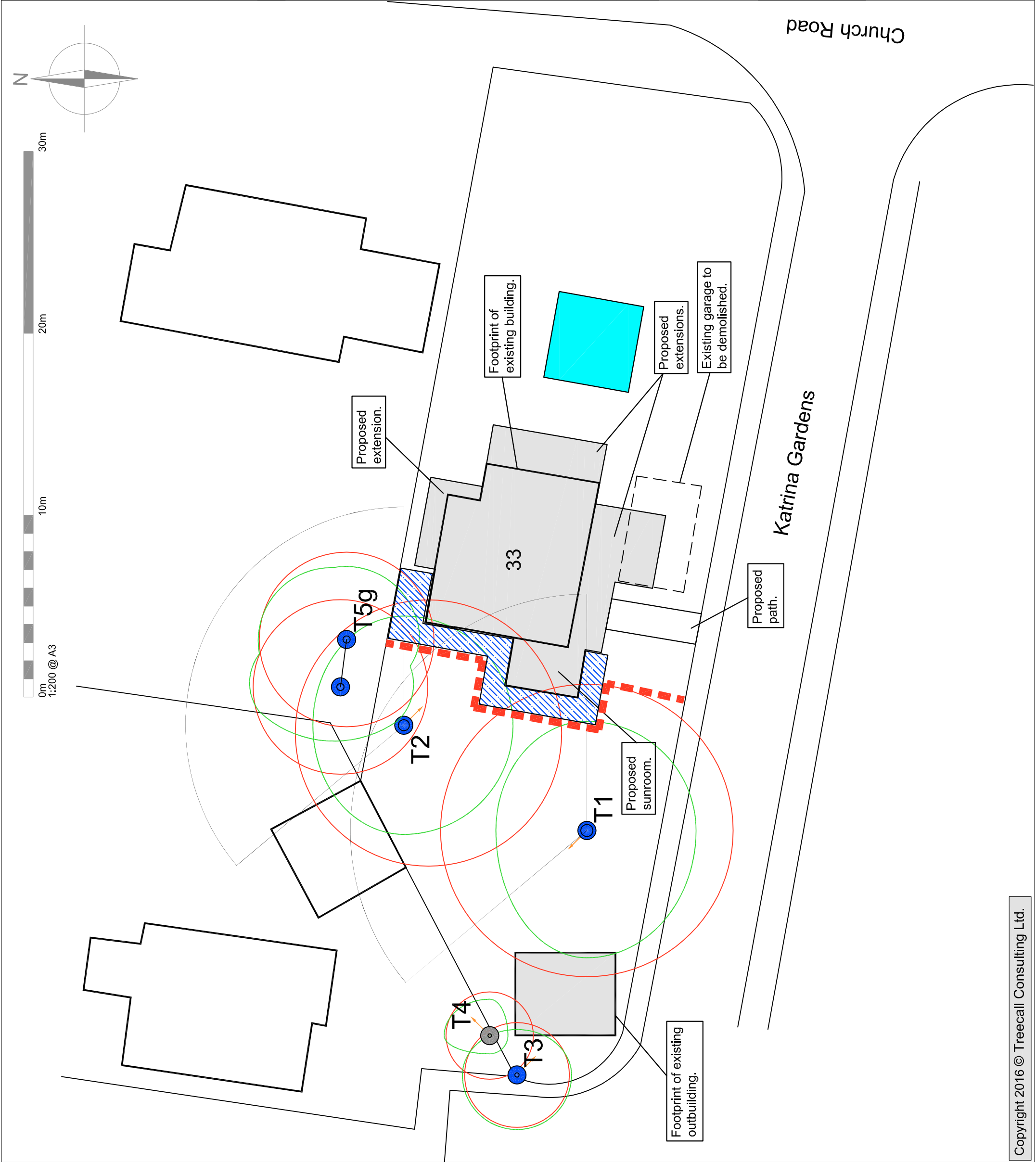


British Standard 5837:2012 Categories	
	'A' category trees are those of high quality.
	'B' category trees are those of moderate quality.
	'C' category trees are those of low quality or young trees with a stem diameter below 150mm.
	'U' category trees are those that are unsuitable for retention

	Tree protection fencing to be erected prior to the commencement of any works on the site.
	Minimum area where ground protection must be installed.
	Suggested area for material storage and cement mixing.

Limitations of Use
This plan is based on the proposed site layout plan provided. All measurements must be checked with this plan and appropriate documents.
This plan has been prepared in colour. If printed in black and white some details may be obscured.

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Appendix 3: Tree Schedule & Key

Key:

Tree no.	Number assigned to tree from survey. Refer to plan for tree location.
Species	Identifies the tree species as clearly as possible according to common or botanical name.
Stem diameters	Stem diameter and number of stems, taken at 1.5m above ground level, measured in millimetres unless indicated otherwise within 'Note'.
Canopy spread	Extent of crown spread in the four cardinal directions, estimated to the nearest half metre.
C Ht	Canopy height estimated above ground level to the nearest half metre.
FSB	Height of the first significant branch, estimated in metres.
FSB dir.	Direction of growth of the first significant branch.
Ht	Height estimated to the nearest half metre.
Life Stage	Estimated age of the tree. Chosen from the following categories;
	Young: Tree only recently planted or established.
	Semi Mature: Established tree, still young and in the first third of its safe useful life.
	Early Mature: Tree in second third of its safe useful life, still with significant capacity for future growth.
	Mature: Tree in the last third of its safe useful life and with no significant capacity for future growth.
	Over Mature: Tree nearing the end of its safe useful life expectancy.
Condition	Assessment of physiological (Phys.) and structural (Struct.) condition according to the following classes:
	Good: Healthy full crown, long life expectancy with no significant defects.
	Fair: Generally healthy, some defects of low significance, limited life expectancy.
	Poor: Low vitality, limited safe useful life expectancy, declining canopy, significant structural defects.
	Dead/dangerous: Urgent removal required.
Observations	Tree issues and general comments along with any appropriate management requirements.
BS Cat.	Relates to Table 1 of BS5837:2012 'Trees in relation to design, demolition and construction - Recommendations'
	A: Trees of high quality with an estimated remaining life expectancy of at least 40 years.
	B: Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.
	C: Trees of low quality with an estimated remaining life expectancy of at least 10 years.
	U: Trees that have an expected safe useful life of less than 10 years regardless of any development proposals.
	1, 2, 3: Sub-categories relating to tree, landscape or cultural values.
RPA	Minimum root protection radius in metres.
Site Visit	20 October 2016
Weather	Clear, dry and calm. Visibility reasonable.



Tree Schedule

Tree no.	Species	Stem diameters (mm)			Canopy spread (m)				C Ht (m)	FSB (m)	FSB dir.	Ht (m)	Life stage	Condition		Observations	BS Cat	RPA (m)
		(mm)	No of Stems	Note	N	E	S	W						Phys.	Struct.			
1	English oak <i>Quercus robur</i>	670	1	@ 1.5m	5	6	6	7	3.5	3.5	NW	13	Early mature	Good	Fair	Two old pruning wounds on south side of lower trunk. Small diameter deadwood in crown.	B2	8.0
2	English oak <i>Quercus robur</i>	610	1	@ 1.5m	5	6	6	6	4	5	SE	12	Early mature	Fair	Fair	Hard surfacing and decorative stone up to base. Two old pruning wounds on south side of lower trunk. Occluding well. Low lateral branches growing toward dwelling appear to have been pruned in the past.	B2	7.3
3	Silver birch <i>Betula pendula</i>	240	1	Over ivy @ 1.5m	3	2.5	3	3	1.5	2	SE	8	Semi mature	Fair	Fair	Ivy on lower trunk. Trunk leans slightly to the west. Growing near boundary fence.	B1	2.9
4	Ash <i>Fraxinus excelsior</i>	200	1	Estimate	2.5	2	1	1	2	3	NE	8	Semi mature	Fair	Fair	On adjacent land. No access to base. Tall, drawn up crown.	C1	2.4
5g	English yew <i>Taxus baccata</i>	400	1	Estimate	5	4	4	3	2	-	-	7	Early mature	Fair	Fair	Two trees situated on adjacent land. No access to base. Suppressed canopies.	B2	4.8

Appendix 4: Arboricultural Method Statement

A1 This report is a working document to aid in finalising an effective specification for tree-sensitive operations. It must be retained on site and be available to the site manager/foreman as a reference during construction.

A2 Contact information (complete as required):

Role	Company / Organisation	Name	Phone Number
Contractor			
Arboricultural Consultant	Treecall Consulting	Andy Luddington	01202 462602
Planning Officer	Havant Borough Council		02392 446015
Arboricultural Officer			02392 446015

A3 The details in this method statement may include work to protected trees, consent for which is deemed to be granted if it is approved as part of a planning decision.

A4 Failure to comply with the details in this arboricultural method statement could result in enforcement action being taken by the local planning authority.

A5 Supervision & Arboricultural Support

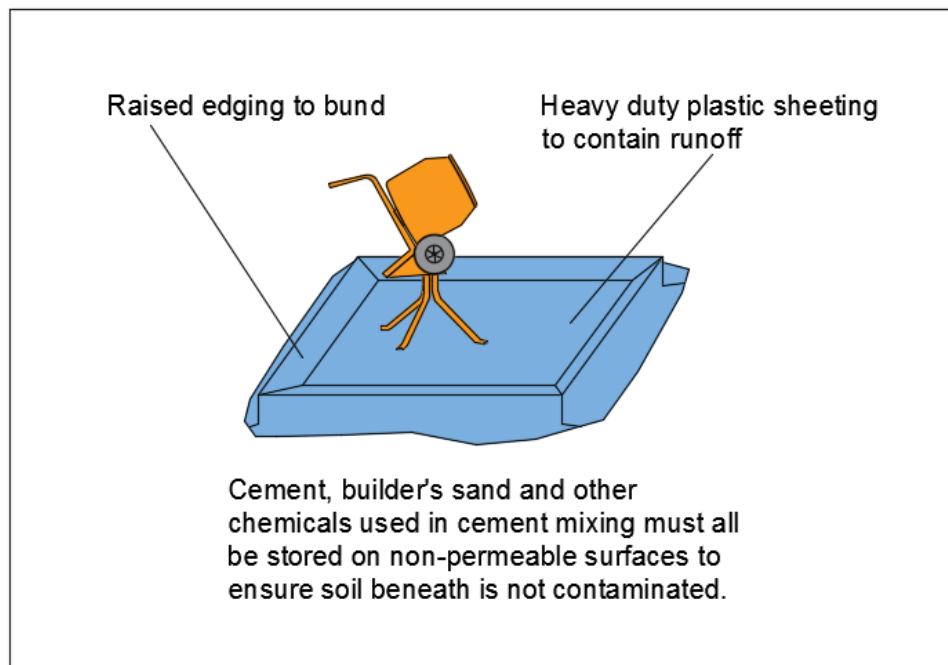
A5.1 The project arboriculturist must supervise or be involved during the following points in the construction process;

- At the time of the pre-commencement site meeting.
- Following installation of tree protection fencing and temporary ground protection.
- At the time of excavations for the installation of specialist foundations for the sunroom, as shown on plan TC1, Appendix 2.
- At the time of planning all underground services within the site.
- As any other arboricultural issues arise on the site.

A5.2 Following each site visit a site note must be issued to the client and the local planning authority.

A6 General Arboricultural Issues

- A6.1 There must be no changes to soil levels within tree root protection areas.
- A6.2 A suggested area for material storage, site office and worker facilities is shown on plan TC1, Appendix 2. This area must be located outside of tree protection areas. Final siting of site cabins must be discussed and agreed at the time of the pre-commencement site meeting.
- A6.3 No fires are permitted to be set within the site.
- A6.4 Cement mixing is to be carried out only where there is no significant risk of contamination of tree root systems. No cement mixing is allowed within 10m of trees to be retained. If cement mixing is unavoidable within 10m of any retained tree it must be contained in a bunded area, as illustrated below.



- A6.5 Cranes must only be used where there is no possibility of them damaging overhanging branches.

A7 Phasing of Arboricultural Operations

- A7.1 The arboricultural operations listed below are placed in order of when each operation should be implemented. This will assist in the planning of the construction programme.

Implementation order	Operation
1	Hold pre-commencement site meeting.
2	Carry out tree work.
3	Install tree protection fencing and temporary ground protection.

Implementation order	Operation
4	Demolish existing garage.
5	Install site cabins and work welfare facilities.
6	Install specialist foundations for sunroom.
7	Construct sunroom and extensions.
8	Install underground services.
9	Remove site cabins and materials from site.
10	Remove tree protection fencing and temporary ground protection.

A8 Pre-Commencement Site Meeting

- A8.1 A pre-commencement site meeting must be held at which the site manager, the project arboriculturist and, if required by condition, a representative from the local planning authority are present to discuss the tree protection measures. This meeting will be held following the installation of tree protection fencing and temporary ground protection.

A9 Tree Surgery

- A9.1 The following works to trees are necessary:

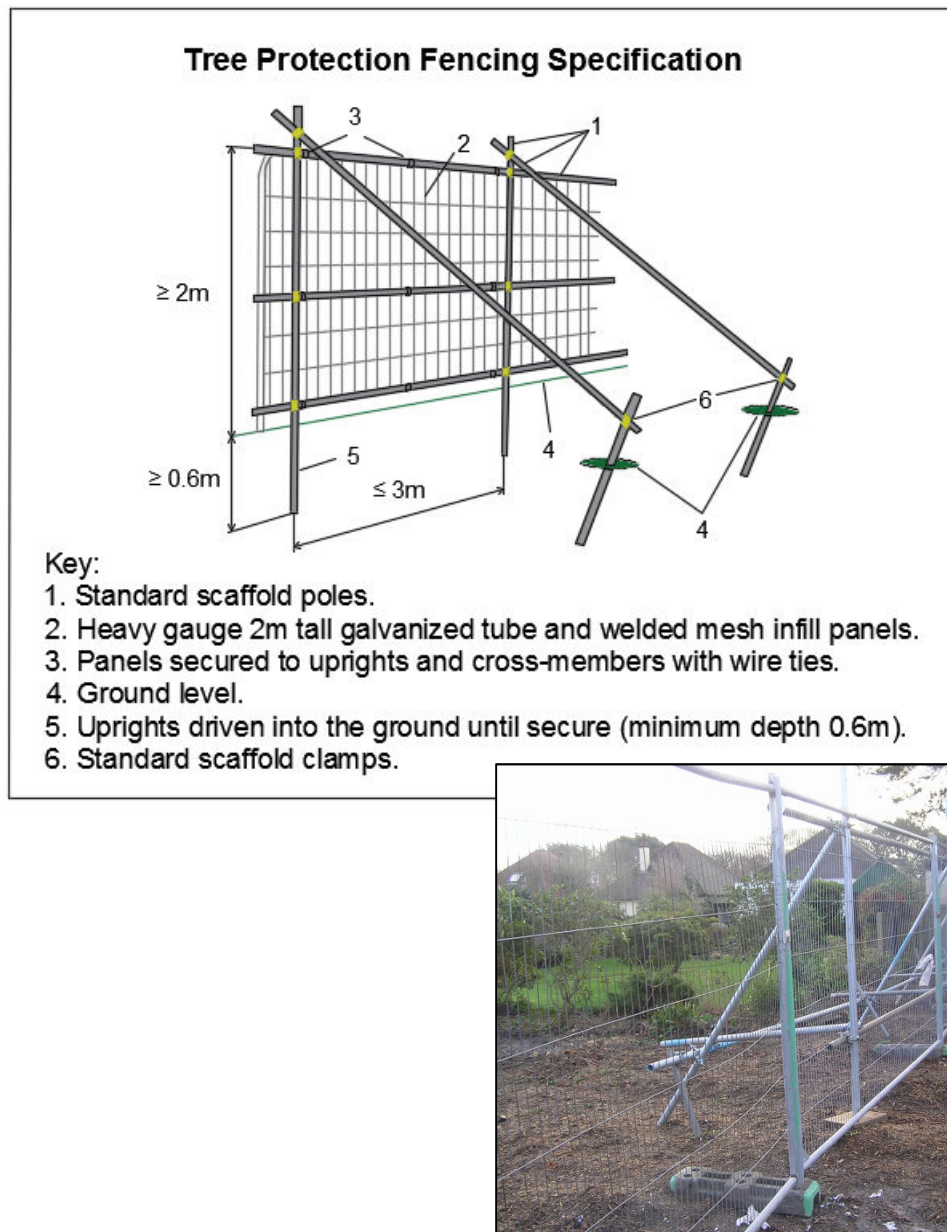
Tree No.	Species	Tree work
T2	English oak	Prune low lateral branches growing to the east to provide a 2m clearance from the existing dwelling.

- A9.2 The legal Duty of Care requires that all works specified in this report must be carried out by qualified, arboricultural contractors working according to Health & Safety Executive guidelines. All work must be carried out to arboricultural industry best practice and in accordance with BS 3998:2010 'Tree work – Recommendations'. All tree management work must take account of the Wildlife and Countryside Act, 1981, as amended by the Countryside and Rights of Way act 2000, which makes it a criminal offence to disturb, injure or kill bats or nesting birds.

A10 Tree Protection Fencing

- A10.1 Tree protection fencing, complying with British Standard 5837:2012 'Trees in relation to design, demolition and construction - Recommendations', must be erected in the position shown on plan TC1, Appendix 2.
- A10.2 Tree protection fencing must be erected prior to any demolition work on site and remain as an effective barrier and in position until the end of the construction phase or until the project arboriculturist, or local planning authority provides written authority for its removal.

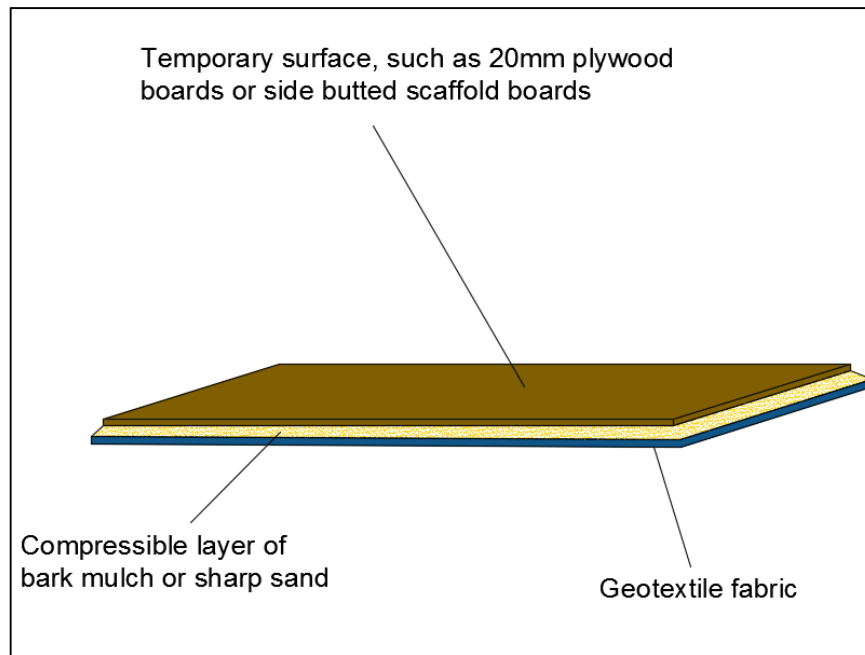
A10.3 Specification of the tree protection fencing to be erected on the site:



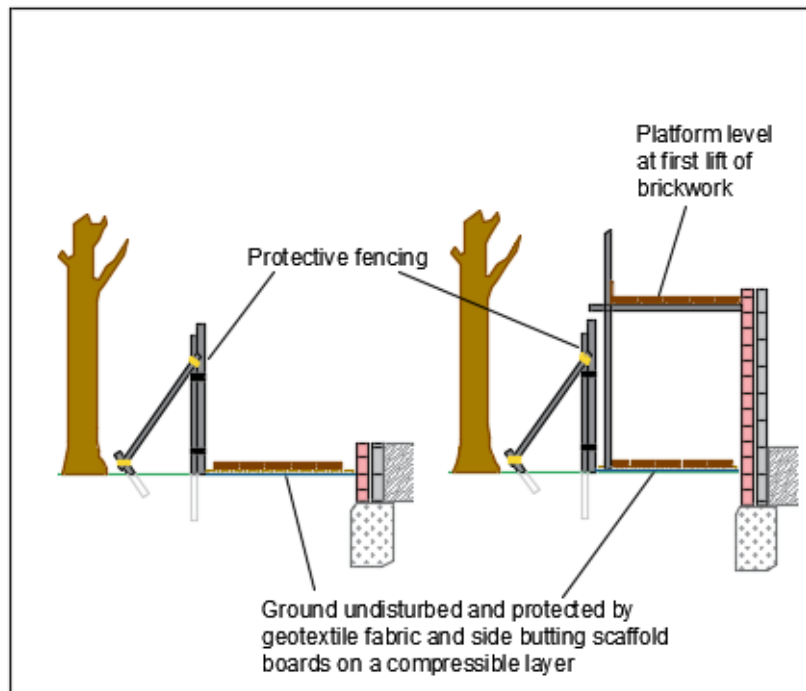
A11 Ground Protection

A11.1 Prior to the commencement of any works on the site temporary ground protection must be laid in the area shown on plan TC1, Appendix 2. Here, ground protection must be provided by laying a geotextile mat onto the existing ground level and adding compressible materials, such as bark mulch or sharp sand to form a safe, level surface. Onto this surface scaffold boards must be laid to become the working surface for the duration of the construction phase. This protection must remain in position until the end of the construction phase or until the project arboriculturist, or local planning authority provides written authority for its removal.

A11.2 Specification of the temporary ground protection to be laid on the site:



A11.3 Where scaffolding is proposed above the area requiring ground protection the footway can be suspended above ground level using the upright scaffold poles onto which horizontal supports can be attached and then boards used to form the footway surface. A geotextile mat must be laid on the ground beneath to prevent contamination from materials dropped through the footway.



A12 Excavations for Specialist Foundations and Floors

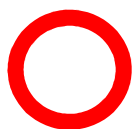
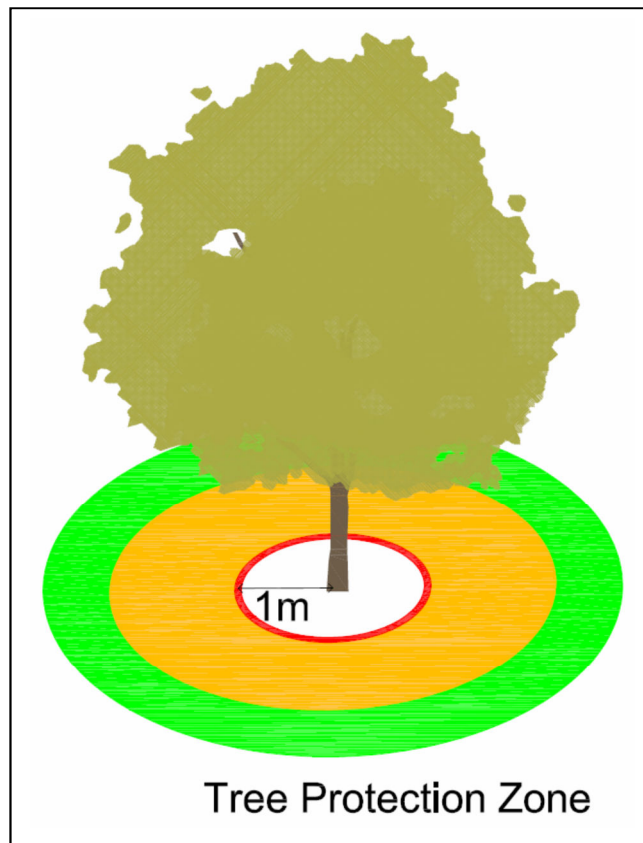
- A12.1 Special consideration and care is needed when installing the mini piles and the suspended internal floor for the proposed sunroom shown on plan TC1, Appendix 2.
- A12.2 The specific details of these operations must be discussed at the pre-commencement site meeting and the arboricultural method statement updated, where necessary, before any work takes place.
- A12.3 The final foundation and internal floor specification must be provided by a qualified structural engineer and therefore is beyond the remit of this report.
- A12.4 Before any excavations the surrounding open ground must be covered with temporary ground protection as specified in section A11 to minimise soil compaction and damage to tree roots. Gaps in the ground protection should be left where excavation is expected.
- A12.5 Prior to the installation of pile foundations for the sunroom an exploratory hole must be hand dug to establish the presence of roots before each pile is installed. The exploratory hole must be repositioned if significant roots are encountered. The final hole must be lined with heavy duty polythene sheeting to minimise soil contamination before cement is poured or the pile installed. The underside of the supporting beams for the internal floor must be suspended above existing ground levels and across the piles to avoid damage to tree roots.
- A12.6 Roots of diameter greater than 25mm must be retained wherever possible. The project arboriculturist must be consulted to advise on the appropriateness of root pruning before any root severance is carried out. Any root severance that is necessary as part of this operation must be carried out in accordance with BS 3998:2010 'Tree work – Recommendations'. Roots must be cut cleanly, to minimise the exposed root surface, and covered with a minimum of 50mm of soil and heavy duty polythene sheeting prior to backfilling to avoid any direct contact with building materials that could affect tree health.
- A12.7 Irrigation tubes must be used where practicable to redirect rainwater. This can be done by using a 60mm perforated pipe coiled beneath the suspended structure and bedded into gravel to help preserve underlying roots.

A13 Underground Services

- A13.1 At the time of planning the routes onto site for such services the project arboriculturist must be consulted. Surface water drains and soakaways must be located outside tree root protection areas.
- A13.2 Service runs required within any tree root protection area must be dug using the guidance provided by National Joint Utilities Group Volume 4 'Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees'. This guidance is summarised in Appendix 5.

Appendix 5: NJUG Volume 4, Summary Guidelines

NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees – Issue 2



PROHIBITED ZONE – 1m from trunk.

Excavations of any kind must not be undertaken within this zone unless full consultation with Local Authority Tree Officer is undertaken. Materials, plant and spoil must not be stored within this zone.



PRECAUTIONARY ZONE – 4 x tree circumference.

Where excavations must be undertaken within this zone the use of mechanical excavation plant should be prohibited. Precautions should be undertaken to protect any exposed roots. Materials, plant and spoil should not be stored within this zone. Consult with local authority tree officer if in any doubt.



PERMITTED ZONE – outside of precautionary zone. Excavation works may be undertaken within this zone however caution must be applied and the use of mechanical plant limited. Any exposed roots should be protected.

NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees – Issue 2

DAMAGE TO TREES

Tree roots keep a tree healthy and upright. Most roots are found in the top 600mm of soil and often grow out further than the tree's height. The majority of these roots are very fine; even close to a tree few will be thicker than a pencil. Most street tree roots grow under the footway but may also extend under the carriageway. If roots are damaged the tree may suffer irreversible harm and eventually die.

PROTECTING ROOTS - DO'S and DON'TS

There are three designated zones around a tree each of which has its own criteria for working practices.

THE PROHIBITED ZONE

Don't excavate within this zone.

Don't use any form of mechanical plant within this zone

Don't store materials, plant or equipment within this zone.

Don't move plant or vehicles within this zone.

Don't lean materials against, or chain plant to, the trunk.

Do contact the local authority tree officer or owner of the tree if excavation within this zone is unavoidable.

Do protect any exposed roots uncovered within this zone with dry sacking.

Do backfill with a suitable inert granular and top soil material mix as soon as possible on completion of works.

Do notify the local authority tree officer or the tree's owner of any damage.

THE PRECAUTIONARY ZONE

Don't excavate with machinery. Where excavation is unavoidable within this zone excavate only by hand or use trenchless techniques.

Don't cut roots over 25mm in diameter, unless advice has been sought from the local authority tree officer.

Don't repeatedly move / use heavy mechanical plant except on hard standing.

Don't store spoil or building material, including chemicals and fuels, within this zone.

Do prune roots which have to be removed using a sharp tool (e.g. secateurs or handsaw). Make a clean cut and leave as small a wound as possible.

Do backfill the trench with an inert granular material and top soil mix. Compact the backfill with care around the retained roots. On non highway sites backfill only with excavated soil.

Do protect any exposed roots with dry sacking ensuring this is removed before backfilling.

Do notify the local authority tree officer or the tree's owner of any damage.

THE PERMITTED ZONE

Don't cut roots over 25mm in diameter, unless advice has been sought from the local authority tree officer.

Do use caution if it is absolutely necessary to operate mechanical plant within this zone.

Do prune roots which have to be removed using a sharp tool (e.g. secateurs or handsaw). Make a clean cut and leave as small a wound as possible.

Do protect any exposed roots with dry sacking ensuring this is removed before backfilling.

Do notify the local authority tree officer or the tree's owner of any damage.

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V2.
V3.

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