



Title:

Arboricultural Implication Assessment
and Method Statement

Date:

11 December
2013

Site Address:

The Leopard Inn
London Road
Purbrook
Waterlooville
Hampshire

Ref:

MS/82113/AL

Client:

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Contents

Page

1.0	Introduction	2
2.0	Brief Site Description and Proposals	3
3.0	Tree Planning Controls	3
4.0	Tree Survey Findings	4
5.0	Arboricultural Implications Assessment	4
6.0	Arboricultural Method Statement	5
7.0	Supervision	7
8.0	Tree Removals and Replacements	7
9.0	Conclusion	7

Appendices

1	Qualifications & Experience	8
2	Plans TC1 and TC2	9
3	Tree Schedule & Key	10
4	Tree Protection Details	12
5	NJUG Volume 4, Summary Guidelines	13



1.0 Introduction

1.1 Terms of Reference

1.1.1 Treecall Consulting is instructed by Mr Goodson to survey the trees on land to the northwest of The Leopard Inn, London Road, Purbrook and produce an arboricultural implications assessment and method statement to take into account important trees in the context of the proposed development.

1.1.2 The guidance in British Standard 5837:2012 'Trees in relation to design, demolition and construction - Recommendations' has been used in appraising the likely impacts of the proposed development on the existing trees and in determining appropriate tree protection measures.

1.1.3 This report is based on my experience and knowledge within arboriculture, details of which are at Appendix 1.

1.1.4 This 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.

1.1.5 No information about subsoil conditions was provided. Only the trees referred to in Appendix 3 were noted.

1.2 Information Provided

1.2.1 The following information was provided by Tanner and Tilley to aid in preparing this report and is assumed to be accurate;

- Proposed Elevations. Drg No. 14 Rev. A
- Proposed Site Plan. Drg No.15 Rev. C
- Proposed Ground Floor Plans. Drg No. 10 Rev. B

1.3 Site Inspection

1.3.1 The site was visited by Mr A Luddington on 6 December 2013. Weather conditions were clear, dry and calm. Visibility was good.

1.3.2 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.

1.3.3 A tree inspection report is an indication of tree health and safety at a specific date. Tree health and condition can change over time and be affected by the environment, and accidental and programmed changes to a site. Therefore, regular periodic inspections are needed to ensure any changes are identified and appropriate, timely action taken.

2.0 Brief Site Description and Proposals

2.1 The Site

2.1.1 The site is rectangular in shape and is on level ground. Within the centre is a building, previously used as a public house. Between the building and the southern and eastern boundaries is an area of hard standing used for car parking. Between the building and the northwest corner is an open area laid with brick paviours. Between the site and the neighbouring land to the northwest is a retaining wall, 900mm in height. The neighbouring land to the northwest stands at a higher level to that of the site.

2.2 The Trees

2.2.1 To the northwest of the site is a horse chestnut, T1, in full maturity and four sycamores, T2-T5, in early maturity. To the west of the site is a semi mature western red cedar, T6.

2.2.2 Between the trunk of the horse chestnut, T1, and the site is a compacted path used to access the garages to the south. There are three inspection chambers present along this path which suggests underground services are present within this area.

2.3 The Proposals

2.3.1 The current layout shows the existing single-storey extension, on the west side of the building, replaced with a new flat roof single-storey extension. The replacement extension will be located along the full length of the western side of the existing building. A small infill extension is also proposed on the southwest corner of the existing building.

3.0 Tree Planning Controls

3.1 According to Havant Borough Council, which were contacted on the 11 December 2013, the trees on neighbouring land to the north and west of the site are protected by a tree preservation order (TPO). These details must be checked with the local planning authority before any work to protected trees is planned or implemented.

3.2 A TPO requires that work proposed to protected trees be submitted to the local planning authority for approval. This process takes up to 8 weeks.

3.3 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. If the tree protection situation changes at any time the local planning authority will issue a new document. If this happens please notify Treecall Consulting so that we can update our records and provide appropriate advice.

4.0 Tree Survey Findings

4.1 Six individual trees 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 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 horse chestnut, T1, is a 'B' category tree while the sycamores, T2-T5, and western red cedar, T6, are all 'C' category trees. Details of all these trees are included in Appendix 3.

5.0 Arboricultural Implication Assessment

5.1 The surveyed trees have been plotted onto the existing and proposed layout plans, which are included as plans TC1 and TC2, Appendix 2. Using this information the arboricultural implications have been identified. These implications must be read in conjunction with section 6 (Arboricultural Method Statement) of this report.

5.2 The horse chestnut, T1, has a notional root protection area of 640m². The proposed extension will affect an area of less than 2% of the circular root protection area identified on plan TC2, Appendix 2. Between the site and the land to the northwest is a retaining wall, 900mm in height. This is to be left unchanged. This change in level suggests that the presence of significant tree roots, within the footprint of the proposed extension, is unlikely. However, special care should be taken when excavating for foundations to ensure tree roots, if present, are not easily damaged. This operation is unlikely to have a significant impact on tree health providing it is supervised by the project arboriculturist.

5.3 The existing extension, on the west side of the building, should be removed carefully to minimise disturbance to the surrounding ground. This is unlikely to have a significant impact on the health of the horse chestnut, T1, as it is mainly outside its root protection area.

5.4 The existing block pavements and retaining wall, near the northwest corner of the site, are to be retained and left unchanged. Additional tree protection measures are not needed in this instance.

5.5 No new underground services are proposed. The existing services are reported to be sufficient to accommodate the proposed changes to the site.

5.6 No tree works are needed to facilitate the proposed extension. There are no foreseeable concerns with the proposed changes placing future pressure to fell or prune trees to the detriment of public amenity.

6.0 Arboricultural Method Statement

6.1 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.

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

6.4 Phasing of Arboricultural Operations

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

6.5 Tree Surgery

6.5.1 None.

6.6 Demolition

6.6.1 The demolition of the existing extension is not likely to impact important trees as indicated on plan TC2, Appendix 2.

6.6.2 Where demolition work encroaches within any tree root protection area damage to tree roots will be minimised by use of hand tools and manual methods and by ensuring all debris is collapsed into the centre of the extension to be demolished. No debris is permitted to be collapsed onto ground within any tree root protection area or onto any tree to be retained. All debris must be removed from the site using wheelbarrows to minimise disturbance to the ground.

6.7 Excavations for Foundations

6.7.1 Excavations along the solid cyan line shown on plan TC2, Appendix 2 must be carried out carefully by hand to a minimum depth of 600mm. Below this depth, if no significant roots are encountered, a mini excavator with toothless bucket may be used.

6.7.2 At this time, if any roots are encountered they must be cut back beyond the area of disturbance in accordance with BS 3998:2010 'Tree work – Recommendations': Where roots of diameter greater than 25mm are encountered the project arboriculturist must be consulted before any pruning takes place. Tree roots must be cut cleanly, to minimise the exposed root surface, and heavy duty polythene sheeting used to isolate them from cement materials prior to backfilling.

6.8 Underground Services

6.8.1 No new services are proposed. The existing are reported to be sufficient. However, if new underground services are identified, excavations for them must be carried out in a way that avoids significant damage to tree root systems. At the time of planning the routes onto site for such services the project arboriculturist must be consulted.

6.8.2 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.

6.8.3 Surface water drains and soakaways must be located outside tree root protection areas to avoid damage to roots during excavation.

6.9 General Arboricultural Issues

6.9.1 There must be no changes in soil levels within tree root protection areas.

6.9.2 Storage areas for materials, site office and worker facilities can be provided on the existing hard standing and is unlikely to have any significant impact on the adjacent trees.

6.9.3 Building materials must be stored outside any tree root protection areas.

6.9.4 Fires can cause major damage to tree roots, trunks and branches and must not be set anywhere within the site.

6.9.5 Cement mixing materials, or other materials that can leak or runoff into soil containing roots can burn or damage roots and alter the soil pH value. These toxic materials must always be stored and used only where there is no likelihood of such effects occurring. 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 in Appendix 4.

7.0 Supervision

7.1 Arboricultural supervision should be provided for the following points in the construction process;

- At the time of excavating for foundations along the solid cyan line on plan TC2, appendix 2.
- As any other arboricultural issues arise on the site.

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

8.0 Tree Removals and Replacements

8.1 None.

9.0 Conclusion

9.1 The trees that constrain the proposed changes to the site are situated on neighbouring land to the northwest of the site. A 900mm retaining wall separates the two sites. The proposed extension affects less than 2% of the notional root protection area of the horse chestnut, T1. Providing the measures detailed in section 6 are followed and the operations listed in section 7 are supervised by the project arboriculturist, the proposed changes are unlikely to have a significant impact on important trees.



Andrew Luddington **NDF (Btec) TechCert (ArborA) TechArborA**

Arboricultural Consultant



Appendix 1: Qualifications and Experience

Andrew Luddington NDF (Btec) TechCert (ArborA) TechArborA is a consultant with Treecall Consulting and has over 11 years' experience in dealing with trees.

He has worked as a local authority arboricultural officer for over 9 years and is now an arboricultural consultant with Treecall Consulting. His experience covers all tree related planning and enforcement matters.

Andrew is a technical member of the Arboricultural Association. He has successfully completed the LANTRA advanced level certificate for tree inspection.

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.

As of 30 August 2013.



Appendix 2: Plans TC1 and TC2

Plans TC1 and TC2

See enclosed:

- **Tree Constraints Plan, TC1 (scale 1:200 @ A3)**
- **Tree Protection Plan, TC2 (scale 1:200 @ A3)**

Dated: 10 December 2013.



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 its first third of its safe useful life.
	Early Mature: Tree in second third of its safe useful life, still significant capacity for future growth.
	Mature: Tree in the last third of its safe useful life, 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: category trees are identified as those that have an expected safe useful life of less than 10 years regardless of any development proposals.
	1, 2-3: Sub-categorisations relating to tree, landscape or cultural values.
RPR	Minimum root protection radius in metres.
Site Visit	6 December 2013
Weather	Clear, dry and calm. Visibility was good.

Tree Schedule Key

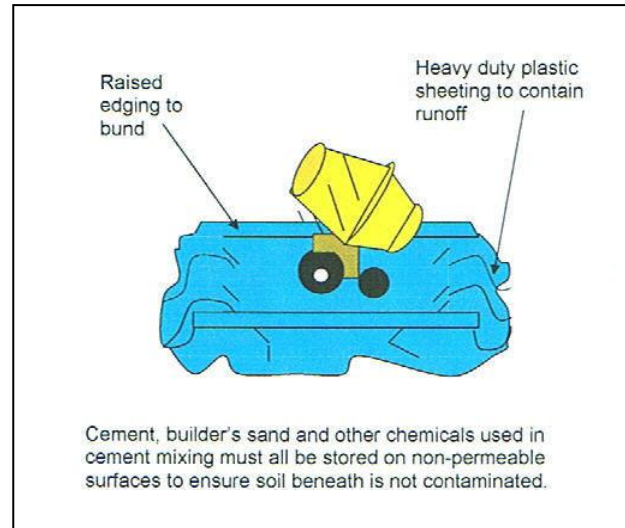


Tree Schedule

Tree no.	Species	Stem diameters (mm)				Canopy spread (m)				C Ht (m)	FSB (m)	FSB dir.	Ht (m)	Life stage	Condition		Observations	BS Cat	RPR (m)
		1	2	3	Note	N	E	S	W						Phys.	Struct.			
1	Horse chestnut <i>Aesculus hippocastanum</i>	1190	-	-	@ 1.5m	6	7	8	11	6	7	NW	20.5	Mature	Good	Good	No signs of instability at the base. Three codominant stems from 6m. Tension fork.	B2	14.3
2	Sycamore <i>Acer pseudoplatanus</i>	190	-	-	@ 1.5m	1	4	1	0	5	5	E	9	Semi mature	Poor	Fair	Heavily suppressed. Poor quality tree.	C2	2.3
3	Sycamore <i>Acer pseudoplatanus</i>	220	-	-	@ 1.5m	1	5	2	0	7	-	-	11	Early mature	Fair	Fair	Heavily suppressed. High crown over pub. Poor quality tree.	C2	2.6
4	Sycamore <i>Acer pseudoplatanus</i>	160	220	-	@ 1.5m	1	5	2	2	7	7	E	13	Early mature	Fair	Fair	Two codominant stems from 1m above ground level. Compression fork with included bark. Unbalanced crown. Poor quality tree.	C2	3.2
5	Sycamore <i>Acer pseudoplatanus</i>	200	240	240	@ 1.5m	2	6	4.5	4	7	4	SE	13	Early mature	Fair	Fair	Three codominant stems from base. Compression fork with included bark.	C2	4.7
6	Western red cedar <i>Thuja plicata</i>	220	-	-	Estimated	3	3	3	3	2.5	-	-	10	Semi mature	Fair	Fair	On adjacent land. No access to base.	C2	2.6

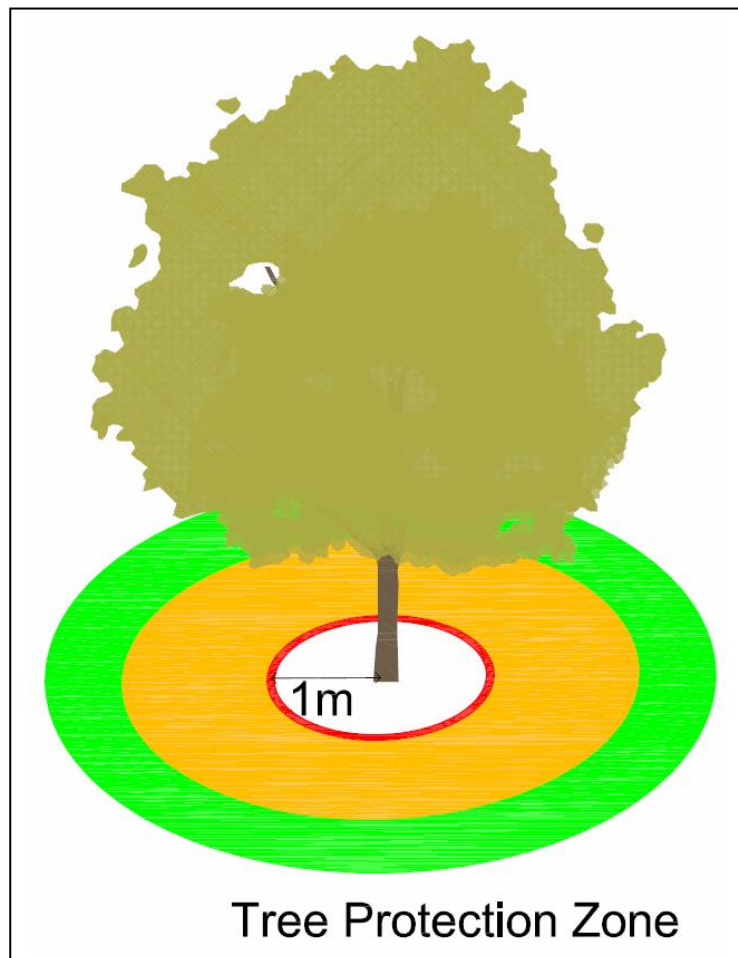
Appendix 4: Tree Protection Details

Illustrative bunding of cement mixing area

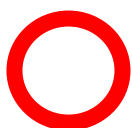


Appendix 5: NJUG Summary Guidelines

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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