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Issue: Proposed orangery situated within the RPA of tree 1.
Solution: Site investigations are to be undertaken within the RPA of retained trees to determine the size, depth and location of any roots that may be present for the purpose of informing foundation design.

Issue: Proposed demolition within the RPA of tree 1.
Solution: Demolition to be undertaken manually under arboricultural supervision. Ground boarding will be installed to prevent damage to the soil and materials will be pulled inwards wherever practicable.

Note: Existing level changes and retaining wall have been shown as roots barriers and have been added using on site measurements during the survey. They are indicative and only represent what was visually apparent during the survey.



Arboricultural Impacts

Impacts	Nos. of trees	
Trees to be removed		0-25
Groups / Hedges to be removed (Partial removal of groups)		0
Trees with proposed incursions into RPAs		1
Trees with proposed incursions into RPAs		0
Trees with proposed incursions into RPAs		0
Trees to be translocated		0
Trees to be translocated		0
Trees to be translocated		0

No.	Species	Proposed structure	Incursion
1	Common Oak	Orchery	RPA/A

Arboricultural Impacts - RPAs (Area)

No.	Species	RPA	Incursion	
			(m ²)	(%)
1	Common Oak	452.4	16.2	3.6

No. of individual trees to be removed

	A	B
0	0	0

No. of groups / hedges to be removed

	A	B
0	0	0

(1 = Partial removal of a group)
(2 = Full removal of a group)

Arboricultural Method Statement

Site investigations

Site investigations are to be undertaken within the RPAs of retained trees to determine the size, depth and location of any roots that may be present for the purpose of informing foundation design

All excavation within the RPA's are to be initially undertaken to a minimum depth of 800mm deep for any excavation or to the full depth of the proposed foundations, hard surfacing or underground services. The soil is to be loosened with the use of a fork or pick and then cleared with the aid of an air-spade and air-vac using a specialist

arboricultural contractor; If an air-spade is not used and all excavations are to be undertaken using hand tools (forks, shovel, trowel, brush). Soil will be loosened with the aid of a fork or trowel and the spoil removed from with the aid of a shovel. Where an air spade or specialist arboricultural contractor is not employed, all excavations are to be undertaken under direct arboricultural supervision. All roots are to be

retained in situ and the project arborist will visit the site to record and photograph the depth, location, and size of any roots present; during this visit the project arborist may be able to cut specific roots with the use of a hand saw or secateurs. The edge of the excavation closest to the retained trees and all uncovered roots will be covered over with a minimum of two layers of damp hessian to prevent drying out, and

where necessary be shuttered to prevent soil collapse or contamination. If appropriate soil beneath the depth of 800mm may be sheet piled with any deeper excavations being undertaken by a machine with an appropriate bucket under direct arboricultural supervision. If a decision is made for a machine to be used it must work from outside of the RPA or have appropriate ground protection in

Upon the completion of the site investigations all trial excavations are to be back filled with the original material or inert fill. It may be suitable to insert a root barrier in locations where the proposed roots are not present or are beginning to enter to prevent root activity within areas

Utility apparatus

drainage severs any roots present and can change the local hydrology in a way that adversely affects the health of the tree. For this reason, particular care should be taken in the route and methods of installation of all underground apparatus. Wherever possible, apparatus should be routed outside of RPA's. Where this is not possible, it is preferable to keep apparatus together in common ducts, all respecting chambers

Where underground apparatus is to pass within the RPAs, detailed plans showing the proposed route should be drawn up in conjunction with the project arboriculturist. In such cases trenchless insertion methods should be used with entry and retrieval pits being located outside of the RPAs. If this option is not feasible and provision route

Any design and installation should be undertaken in accordance with the National Joint Utilities Guidelines (NJUG).
Above-ground utility apparatus

Above-ground apparatus (including CCTV cameras and lighting) should be sited to avoid the need for detrimental tree pruning, as such the current and future crown size of the tree should be assessed. Tree branches can be pruned back with care to provide space, though it is not appropriate for repetitive and significant tree work to be an integral design solution unless this is a suitable management outcome for the site.

Foundations within RPAs

The use of traditional strip foundations can result in excessive root loss and as such should be avoided.

Designs for foundations that would minimize the adverse impact upon trees should include particular attention to the existing levels, proposed finished levels and cross sectional details. Site specific and specialist advice should be sought from the project engineers and arboriculturalists.

- Piles with site investigation used to be determined their optimal location whilst avoiding damage to roots important for the stability of the tree, by means of hand tools or compressed air soil displacement, to a minimum depth of 600mm;

- Beams, laid at or above ground level, and cantilevered as necessary to avoid tree roots identified by site investigation.

Where a slab for minor structures (e.g. shed base) is to be formed within the RPA, it should bear on the existing ground level, and should not exceed an area greater than 20% of the existing unsurfaced

Where piling is to be installed near to trees, the smallest practical pile diameter should be used, as this reduces the possibility of striking major tree roots, and reduces the size of the rig required to sink the piles. If a piling mat is required, this should conform to the parameters

for ground boarding. Use of the smallest practical piling rig is also important where piling within the branch spread is proposed, as this can reduce the need for access facilitation pruning. The pile type should be selected bearing in mind the need to protect the soil and adjacent roots from the potentially toxic effects of uncured concrete, e.g. sleeved bored piles or screw piles.

This information is compliant with British Standard BS5837:2012 Trees in relation to design demolition and construction - Recommendations, section 7.5 Special engineering for foundations within the RPA.



Unit 3, Well House Barns, Chester, CH4 0DH

Project: **6 Mesopodone**

6 Mapledeene,
Caversham,
Reading,
RG4 7DQ

Client: Mr Lindsay Kennedy

Drawing:
Arboricultural Impact Assessment

Based on:

12730 /03 A	
Drawing No: Arbtech AIA 01	Rev:

Date:	Scale:	Drawn:
Oct 2023	1:100 @ A0	CMW

Key:					
Tree Nos.:	1	Tree Canopies:		Trunks:	
		Category:		Category:	

RPA's:		Category 'A' trees:		Category 'B' trees:	
Category 'C' trees:		Category 'C' groups:		Potential root barriers:	

Existing Site: (OS file):	Proposed Site:	Inhouse - Structures:	
Site Investn:			

All dimensions should be checked on site. No dimensions are to be scaled from this drawing.

This drawing is designed to reflect the principles of the layout or design only, and relates only to the protection of the structure.

This drawing is not to be used as a definitive part of the engineering or construction design or method statement.

An architect or structural engineer should be consulted over any matters of construction, detailing or specification and for any structural or regulatory requirements relating to proposed structures, hard surfacing or underground services.

This drawing was produced in colour - a monochrome copy should not be relied upon.

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