

Ref: LAS_463
Date: 15.12.2023

Site: The Coopers, Penny Lane, Wargrave

Arboricultural Statement

1 INTRODUCTION

- 1.1 LandArb Solutions Ltd has been instructed to prepare an arboricultural statement to accompany a planning application for the removal and replacement of an outbuilding/annex at The Coopers, Penny Lane, Wargrave; herein referred to as the site.

2 TREE SURVEY

- 2.1 LandArb Solutions previously visited the site on 27.07.22 to carry out a tree survey.
- 2.2 A copy of the tree survey schedule and tree survey and constraints plan is shown in Appendix 1. A selection of site photographs is shown in Appendix 2.
- 2.3 The following provides a short description of tree cover at the site and should be read in conjunction with the tree survey schedule and tree constraints plan.
- 2.4 The Coopers is located to the west of Penny Lane. There is a concrete drive off Penny Lane that provides site access to the main dwelling. There is a second gravel drive that provides access to the existing annex.
- 2.5 The main access to the main house is located just to the north-west of the annex and has two mature beech trees (T9 and T10) either side. The second access is located to the south east of the annex and also has two mature beech trees either side (T1 and T2).

- 2.6 On the north east side of Penny Lane opposite the annex are mixed trees species (G3) and G11 which form a fragmented boundary with the neighbouring field. Further north-west along Penny Lane there is a yew/laurel/holly hedge and sycamore hedge either side of Penny Lane, both of which are managed.
- 2.7 Immediately next to the existing annex is a semi mature sycamore tree (T8) along with understory shrubs. To the south-west and west of the annex across the lawn is a tennis court with woodland (W19) beyond. To the east of the tennis court are several mature beech and ash trees.
- 2.8 To the north of the main house are mature beech trees (T13-T17) and a mix of other tree species include yew, ash and sycamore (T18, G20 and G21).

3 STATUTORY PROTECTIONS

Conservation Area / Tree Preservation Orders

- 3.1 A review of Wokingham Borough Council's Online TPO Maps (accessed 27.07.22 and 10.12.23) shows the property is not within a Conservation Area. However, it does confirm that the property is located within an area covered by a woodland TPO (ref: TPO-0002-1951-W2). The order was confirmed in 1951.
- 3.2 Notwithstanding specific exemptions and in general terms, a TPO prevents the cutting down, uprooting, topping, lopping, wilful damage or wilful destruction of trees without the prior consent of the local planning authority.
- 3.3 Penalties for contravention of a TPO tend to reflect the extent of damage caused but can, in the event of a tree being destroyed, result in a fine of up to £20,000 if convicted in a Magistrates' Court, or an unlimited fine if the matter is determined by the Crown Court.

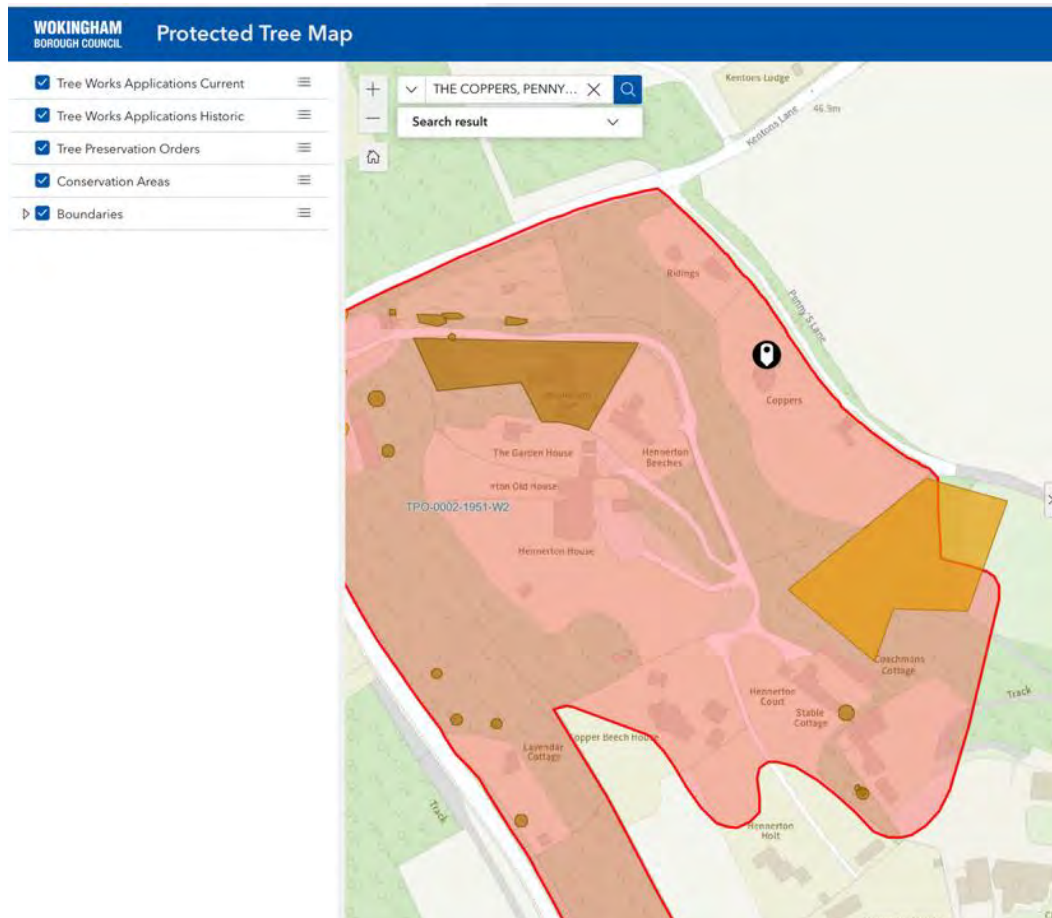


Fig 1: Extract of Wokingham Council's TPO Map.

Statutory Wildlife Protection

- 3.4 Although preliminary visual checks from ground level of wildlife habitats are made at the time of surveying, detailed ecological assessments of wildlife habitats are not made by the arboriculturist and fall outside the remit of the survey.
- 3.5 Trees which contain holes, splits, cracks and cavities could potentially provide a habitat for bats in addition to birds and small mammals. It is recommended that in line with any accompanying specialist advice, any tree works should only be carried out following a detailed climbing inspection to the tree to ensure that protected species or their nests/roosts are not disturbed. If any are found, the project manager, site owner or consulting arboriculturist should be informed and appropriate action taken as

recommended by a Statutory Nature Conservation organisation such as Natural England.

- 3.6 It is advised that tree works are carried out with the understanding that birds will generally nest in trees, hedges and shrubs between March and August. Ideally, operations should be avoided during this period. Any necessary work should only be carried out following a preliminary check of the vegetation. For information, the Wildlife and Countryside Act 1981 (as amended), The Countryside and Rights of Way Act 2000 (as amended) and the Conservation of Habitat and Species Regulations 2010, form the basis of the statutory legislation for flora and fauna in Britain.

4 DEVELOPMENT PROPOSALS

- 4.1 Development proposals comprise the demolition of an existing outbuilding/annex and construction of a replacement building/annex.
- 4.2 A copy of the proposed site plan is shown in Appendix 3 and foundation design in Appendix 4.

5 ARBORICULTURAL IMPACT ASSESSMENT

- 5.1 The proposed site plan has been overlaid with the tree survey to prepare a Tree Protection Plan Construction (Appendix 6). This has been used to inform this assessment in terms of the proposed site plan and relationship with trees.

Tree Retention/Loss

- 5.2 No trees require removal to enable development.

Impact to retained trees

Tree works

- 5.3 No major tree work is required to enable development.
- 5.4 The canopies of T1, T2, T9 and T10 where overhanging the existing driveways are to be lifted (as required) to ensure at least 5.4m clearance.
- 5.5 Any other requirements for tree work in the future should be actioned through the TPO process.

Removal and Replacement of the outbuilding/annex

- 5.6 Proposals are for the demolition of an existing outbuilding and construction of a replacement building.
- 5.7 It is proposed to construct a replacement outbuilding set further south-west away from existing trees compared to the current building location. This is considered to be a positive design element as it will result in built form being removed from the RPAs of existing trees, namely T9 and T8, and the new structure will be located further away.
- 5.8 Part of the replacement building will still encroach the default RPA of T9, however this would be within the footprint of the existing building, therefore would not be introducing built form where it does not currently exist. In addition, as shown in Appendix 4, it is

proposed to construct the replacement outbuilding on a pile and raft foundation, which would sit within the existing footprint of the current building foundation, thus would not involve deeper strip foundations.

- 5.9 The proposed location of the replacement annex/outbuilding is considered acceptable from an arboricultural perspective because it is located further away from existing trees and will enable a reduction in built form in the RPAs of existing trees. Overall, proposals are considered to be a betterment compared to the existing situation.

Levels

- 5.10 All existing levels in RPAs will be retained.

Services/Drainage

- 5.11 No details of proposed drainage have been provided. However it is clear from the site plan and relationship with trees that there would be space to locate new drainage / soakaways without encroaching tree RPAs. It is recommended that any new drainage/soakaways are installed outside of any RPA.
- 5.12 The existing outbuilding already has service connections and these will be re-used.

Summary

- 5.13 Overall, with regard to proposals the following is noted:
- Proposals would not require any tree loss nor any unacceptable tree works to enable development.
 - Proposals do not involve significant engineering works in any RPA that would reasonably lead to the loss or deterioration of existing trees.
 - Proposals would result in the reduction of hard surfacing/built form from the RPA of a high quality trees / RPAs.
 - Retained trees can be adequately protected using a combination of protection fencing, ground protection and sensitive working methodologies.

6 TREE PROTECTION AND METHOD STATEMENT

- 6.1 Tree protection measures are shown on the TPP Demolition in Appendix 5 and Tree Protection Plan Construction (Appendix 6). Protection measures will rely on fencing, ground protection and sensitive working.

Tree Protection During Demolition

- 6.2 Tree protection during the demolition phase is shown in Appendix 5.

Protection fencing

- 6.3 Tree protection fencing is to be installed around the edge of the existing driveway accesses and to the east side of the existing annex (as shown in Appendix 5) prior to demolition works. Fencing is required to avoid accidental direct contact and encroachment into unsurfaced areas of RPAs.

- 6.4 Protection fencing is to be installed prior to demolition works on site and remain in place for the duration of works.

Ground Protection

- 6.5 No ground protection is needed during the demolition phase. The existing driveway and concrete hard surfacing will act as ground protection during removal of the existing building.

Sensitive Working Methods

- 6.6 The existing outbuilding is to be demolished and pulled away from existing trees using a top down pull back approach.
- 6.7 Waste materials are to be pulled back south and west away from existing trees and RPAs.

- 6.8 Once the above ground structure has been removed, works are to begin breaking out the existing building foundation. Again, removal works should start closest to the existing trees and work backwards. This is to ensure works do not proceed over exposed ground. Concrete is to be broken up using lightweight plant and lifted out working backwards away from the trees.
- 6.9 Once concrete and built form is removed, the ground is to be made up using clean topsoil as required. If, due to levels change and stability, the existing foundation/concrete nearest the trees would be difficult to remove without significant disturbance to the ground it should be retained in situ.
- 6.10 No machinery, equipment or contractor parking is to occur in any exposed RPA.

Tree Protection During Construction

- 6.11 Tree protection during the construction phase is shown in Appendix 6.

Protection fencing

- 6.12 Following demolition works, fencing is to remain in place around the edge of the existing accesses / drives to protect T10, T9, T2 and T1. However, with the removal of the existing building and concrete base/foundation, fencing will need to be brought forward away from T8 to protect more of the RPA of T9 and exposed ground.
- 6.13 Protection fencing is to be installed as per the TPP Construction (Appendix 6) following demolition works and prior to construction works starting on sit. It is to remain in place for the duration of construction works.

Ground Protection

- 6.14 Tree protection fencing, although brought forward, would not be able to be installed to fully protect the entire default RPA of T9 and T2 as fencing will need to be set back from the proposed new building edge to allow access for construction. Currently these

areas are covered in concrete hard surfacing. However, following demolition works, these areas (shown in beige in Appendix 6) will become exposed. Areas of RPAs not protected by fencing or covered with hard surfacing will require temporary ground protection.

- 6.15 Temporary ground protection in the form of scaffold boards or ground guards set upon a 100-150mm layer of wood chippings set on a geotextile would be appropriate.
- 6.16 An example of ground protection is set out in Appendix 7.
- 6.17 Ground protection for areas around the new building (as shown in beige on the TPP Construction) will need to be installed prior to construction works and remain in place until completed.

Sensitive Working Methods

- 6.18 During the construction phase, fencing and ground protection is to be maintained in place as per the TPP Construction.
- 6.19 The new building foundation where in the RPA of T9 is to avoid a strip foundation or dropping of the existing site levels. A pile and raft foundation (Appendix 4) is to be used that will sit within the footprint of the existing building foundation. Other than excavation for the piles, the raft is to be no deeper than the existing building foundation slab where in the RPA.

General rules for tree protection

- 6.20 Areas excluded by fencing or covered by ground protection form a construction exclusion zone (CEZ). The following activities, are not permitted within a CEZ (or any RPAs) unless detail in this statement:
 - No mixing of cement.
 - No soil/turf stripping, raising/lowering of ground levels, deposit or excavation of soil or rubble.

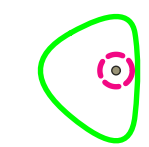
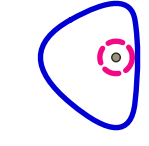
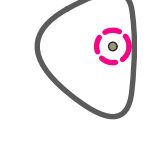
- No storage of materials, waste materials, spoil, machinery fuel, chemicals or other materials of any other description (unless on ground protection).
- No parking/use of tracked or wheeled machinery unless on ground protection/existing driveway).
- No lighting of fires or disposal of liquids.
- No signs, cables, fixtures or fittings of any other description shall be attached to any part of a retained trees.

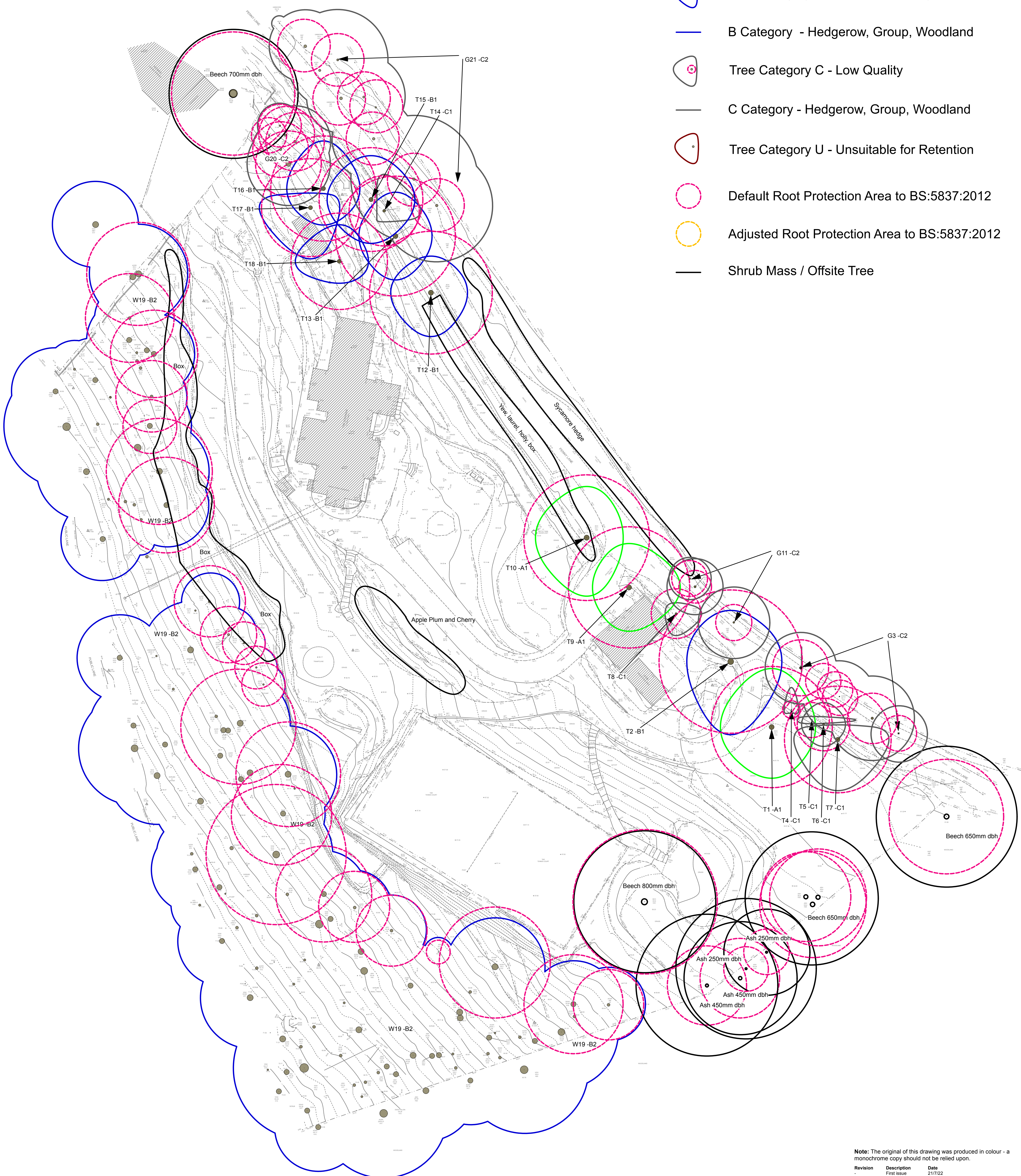
Material and equipment storage

- 6.21 All materials and equipment are to be dropped off and stored within the existing hard surfaced areas or areas outside of RPAs.
- 6.22 The driveway to the main dwelling, on the north of the existing outbuilding, should be used for materials drop off rather than the southern access as it would be on existing concrete. Equipment, material and deliveries can more easily use the main access drive to reach the rear (south and west side) of the existing outbuilding and working area.
- 6.23 Contractor parking is to be confined to the existing driveways or areas outside of RPAs.

**Appendix 1:
Tree Survey and Constraints Plan and Schedule**

KEY - BS 5837 : 2012 Categories

-  Tree Category A - High Quality
-  A Category - Hedgerow, Group, Woodland
-  Tree Category B - Moderate Quality
-  B Category - Hedgerow, Group, Woodland
-  Tree Category C - Low Quality
-  C Category - Hedgerow, Group, Woodland
-  Tree Category U - Unsuitable for Retention
-  Default Root Protection Area to BS:5837:2012
-  Adjusted Root Protection Area to BS:5837:2012
-  Shrub Mass / Offsite Tree



Ref no.	Species	Ht. (m)					Crown Spread (m)								Life stage	ULE	Physiological Condition	Structural Condition	General observations and Notes
			Stem dia. (mm)	RPA radius	RPA area	Category Grading	N	E	S	W	Ht. 1st Br. (m)	Est.	1st Br. Direction	Ht. Can. (m)					
T1	Beech	12.0	690	8.3	215	A1	8.0	6.0	7.0	7.0	N/A	-	N/A	3.5	M	20+	Good	Fair	Large tree, dense canopy. Some interior deadwood, twin stem from 5m with kinked leaders. Past branch loss evident.
T2	Beech	13.0	820	9.8	304	B1	7.0	7.0	10.0	6.0	N/A	-	N/A	3.5	M	20+	Good	Fair	Large tree, dense crown, interior canopy deadwood and past branch loss, stem leans slight to north east, and is set on edge of bridleway embankment. Bark damage appears may be canker.
G3	Hazel, ash, field maple	7.0	200	2.4	18	C2	As on plan				N/A	-	N/A	0.0	EM	10+	Fair	Poor	Three hazel stands, one field maple and a multi-stemmed ash, all on north side of bridleway. Supressed to south so crowns lean north.
T4	Sycamore	7.0	100	1.2	5	C1	3.0	1.0	0.5	1.0	N/A	-	N/A	2.5	SM	10+	Fair	Poor	Suppressed by beech, drawn up towards light. Low quality.
T5	Ash	8.0	200	2.4	18	C1	0.5	6.0	0.5	2.0	N/A	-	N/A	5.0	EM	10+	Fair	Poor	Self set, Drawn up and kinked towards light, suppressed by beech, canopy to east and is high, poor form
T6	Ash	12.0	300	3.6	41	C1	3.0	3.0	3.0	3.0	N/A	-	N/A	6.5	EM	10+	Fair	Poor	Drawn up, ivy on stem.
T7	Ash	12.0	608	7.3	167	C1	2.0	7.0	7.0	6.0	N/A	-	N/A	0.0	EM	10+	Fair	Poor	Multi-stem from base and drawn up stems, fused near base, lower canopy deadwood.
T8	Sycamore	12.0	280	3.4	35	C1	1.5	3.5	3.0	1.5	N/A	-	N/A	4.0	SM	10+	Fair	Poor	Drawn up, suppressed by neighbouring beech.
T9	Beech	15.0	690	8.3	215	A1	6.0	7.0	6.0	5.0	N/A	-	N/A	2.0	M	20+	Good	Fair	Stem leans east, large tree, dense canopy, some interior deadwood, canopy touching outbuilding.
T10	Beech	19.0	720	8.6	235	A1	7.0	5.0	8.0	7.0	N/A	-	N/A	3.0	M	20+	Good	Fair	Large tree, dense crown, good shape, some past branch loss in past, minor deadwood.
G11	Ash, hazel	7.0	200	2.4	18	C2	0.0	3.0	0.0	0.5	N/A	-	N/A	0.0	EM	10+	Fair	Poor	Ash stem with hazel stands on side of bridleway. Dense Ivy on hazel, hazel canopy leans to the east, ash drawn up.
T12	Beech	20.0	700	8.4	222	B1	5.0	5.0	6.0	5.5	N/A	-	N/A	5.0	M	20+	Good	Fair	Large tree, dense crown. Pruned/lifted in the past.
T13	Beech	19.5	680	8.2	209	B1	6.0	5.0	6.0	5.0	N/A	-	N/A	5.5	M	20+	Good	Fair	Large tree on edge of drive and bridleway, pruned in past, some past branch loss. Cavity in old branch loss point west side.
T14	Beech	14.0	400	4.8	72	C1	5.0	5.0	1.5	1.0	N/A	-	N/A	6.0	EM	10+	Fair	Poor	Drawn up stem, suppressed by larger beech with leader kinking east and second limb north to reach the light, poor shape/structural condition.
T15	Beech	13.5	590	7.1	157	B1	6.0	6.0	6.0	6.0	N/A	-	N/A	6.0	M	20+	Good	Fair	Drawn up, stem kinks to west, high canopy to reach light, small cavity in old branch loss point south side on stem, north branch is dead. South limb has cavity / wound that appears to have been where crossing branches may have rubbed.
T16	Beech	19.5	600	7.2	163	B1	6.5	5.0	5.0	5.0	N/A	-	N/A	5.0	M	20+	Fair	Fair	High canopy, deadwood in Lower canopy needs removing, appears central leader snapped out in past leading dead branch stub. Needs climbing inspection to determine extent of decay. Small, cavities in old pruning wounds north side.
T17	Beech	20.5	560	6.7	142	B1	2.0	4.0	7.0	7.0	N/A	-	N/A	3.0	M	20+	Fair	Fair	Canopy suppressed to north leans south. Some deadwood and past branch loss. Set on embankment next to brick out building, main leader kinks.
T18	Yew	10.0	550	6.6	137	B1	5.0	4.0	3.0	6.0	N/A	-	N/A	1.0	M	20+	Fair	Fair	Minor ivy on stem, some needle browning, set adjacent to brick outbuilding.
W19	Ash, horse chestnut, sycamore, yew, box	14.0	300	3.6	41	B2	As on plan				N/A	-	N/A	0.0	M	20+	Fair	Fair	Mixed woodland group, set on raised embankment land drops to the site. Box shrubs between trees and property garden. Stems appear 200-400mm.
G20	Ash, sycamore, yew	10.5	250	3.0	28	C2	As on plan				N/A	-	N/A	0.0	EM	10+	Fair	Poor	Self set through to semi/early mature. Kinked stems, drawn up, all have poor forms several dead sycamore. One sycamore growing horizontal over track needs removing.
G21	Sycamore, hazel	11.5	300	3.6	41	C2	As on plan				N/A	-	N/A	0.0	EM	10+	Fair	Poor	Several hazel stands and multiple multi-stem sycamores. Sycamores have drawn up stems and are suppressed to the south with canopies leaning north east. All set on edge of tack.

Appendix 2: Site Photos



Photoview 1: View south along access drive towards T10.



Photoview 2: View south-east towards T1, G3 and T4-T7.



Photoview 3: View north-west towards T2.



Photoview 4: View east towards the eastern boundary of the site.



Photoview 5: View north at T1 and T2.



Photoview 6: View looking north towards the existing annex.



Photoview 7: View north-west at the existing annex.



Photoview 8: View west towards the tennis court.



Photoview 9: View west towards the tennis court, drive and W19 beyond.



Photoview 10: View north at the existing house.



Photoview 11: View north east at T9 and T10.



Photoview 12: View east at T9, T8 and T2.



Photoview 13: View north -easts at the existing driveway entrance and concrete.

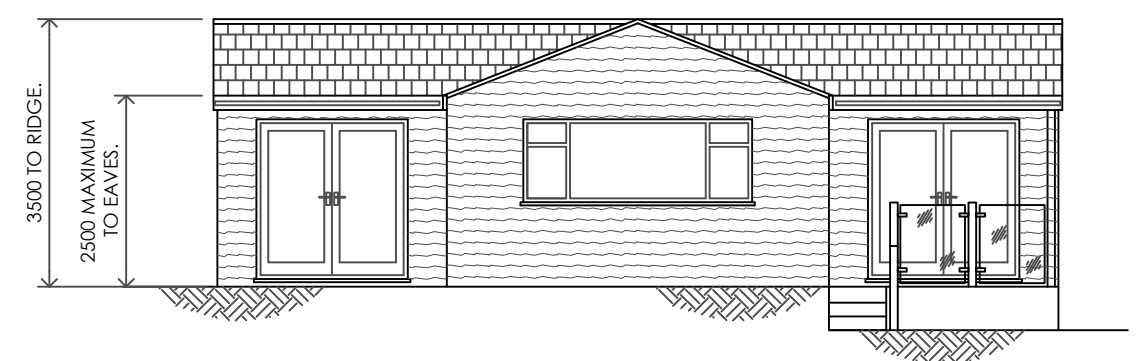
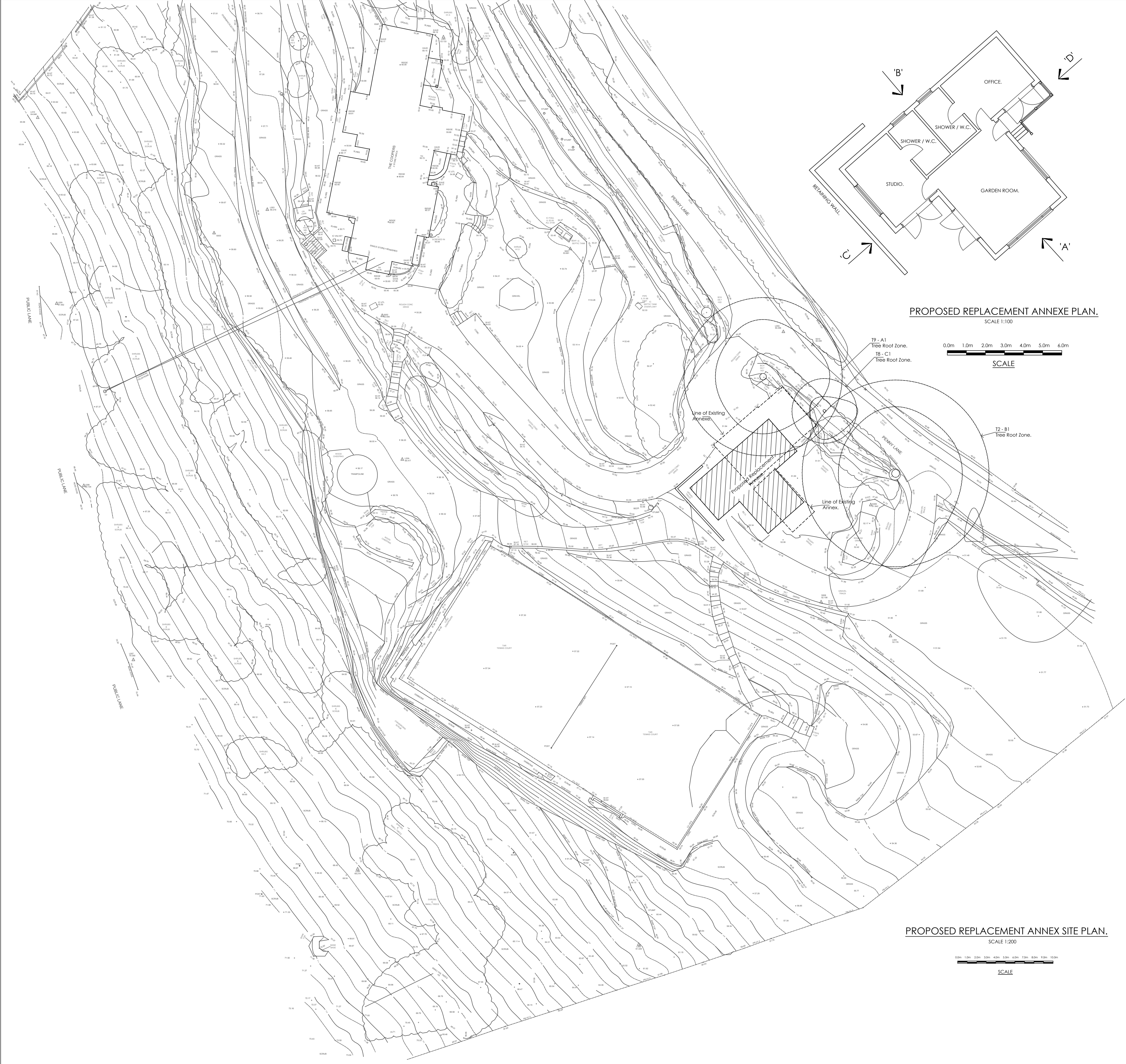


Photoview 14: View west at existing annex structure near T8 and T9.

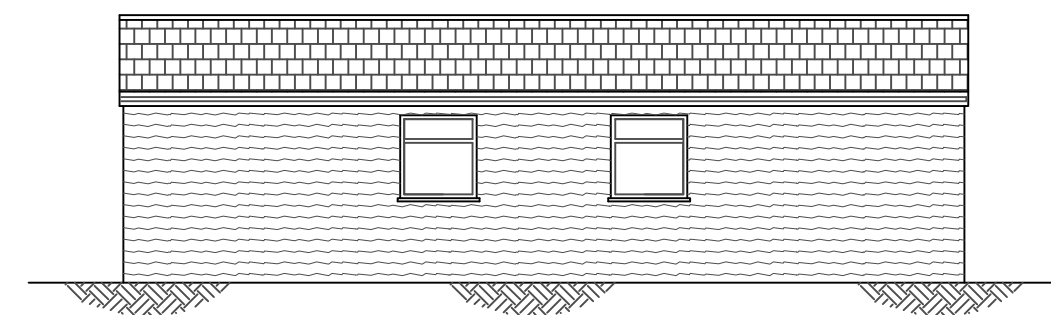


Photoview 15: View east at existing drive and annex building.

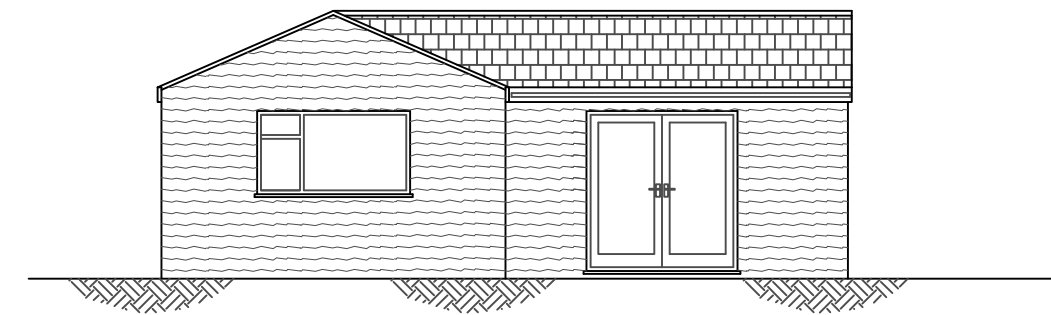
Appendix 3: Proposed Site Plan



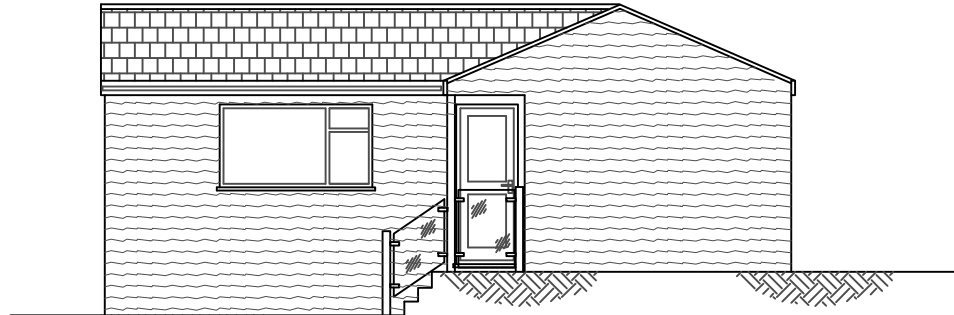
PROPOSED ELEVATION 'A'.



PROPOSED ELEVATION 'B'.



PROPOSED ELEVATION 'C'.



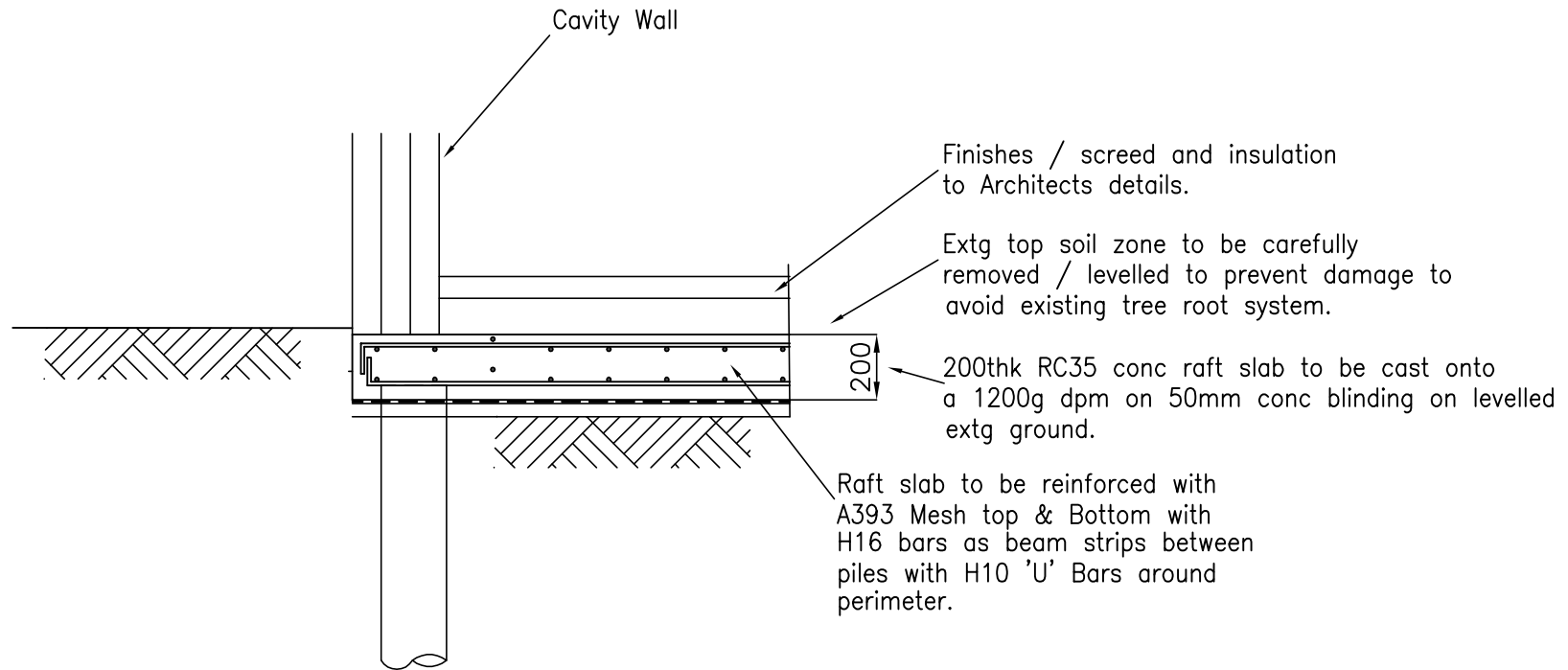
PROPOSED ELEVATION 'D'.

C	03.12.2023	TREE ROOT ZONES INDICATED. ELEVATIONS UPDATED. DRAWING UPDATED.
B	16.11.2023	
A	07.11.2023	
REV	DATE	REVISION
CLIENT		
Mr & Mrs Pearson.		
PROJECT		
The Coppers, Penny Lane, Wargrave, Berkshire.		
TITLE		
Proposed Replacement Annex.		
 Wargrave Design Consultancy The Old Pump House - Wargrave - Berkshire - RG10 8DJ 0118 940 1678 - info@wargravedesign.com www.wargravedesign.com		
DRAWN	G.D.G.	SCALE
DATE	October 2023	1: 200 @ A1
DRAWING No.	1802 - 401	REV.
		A B C

These plans must not be acted upon until the appropriate planning and building regulation approvals have been granted. Should the works be undertaken prior to the above approvals being in place it is done so entirely at the client's own risk.

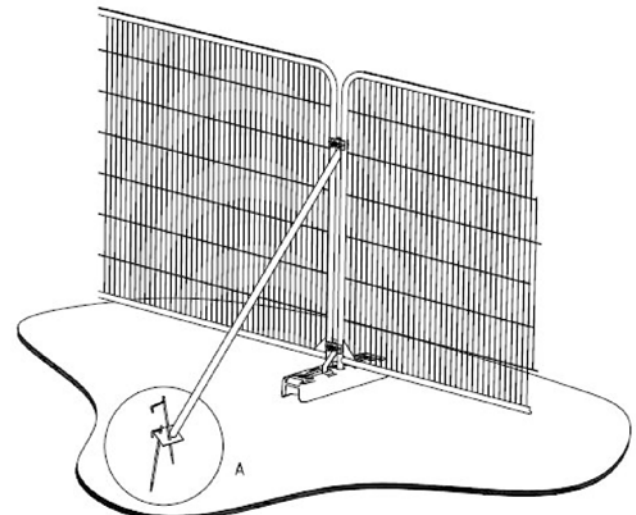
Appendix 4: Foundation design

The Coppers
Perry Lane
Wargrave
Berks

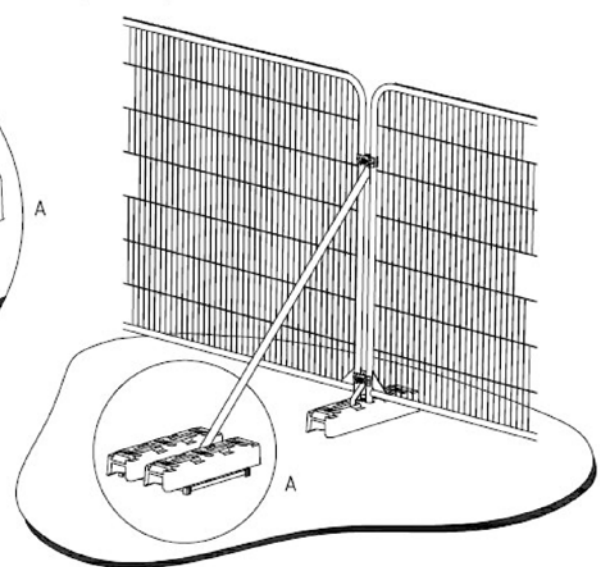
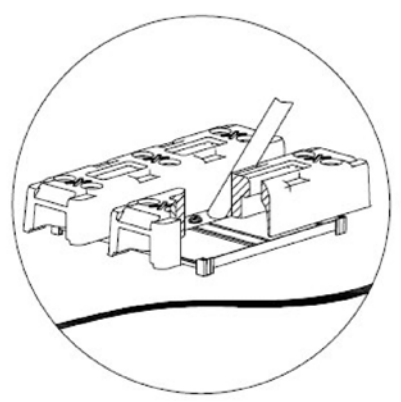


Typical Edge Section

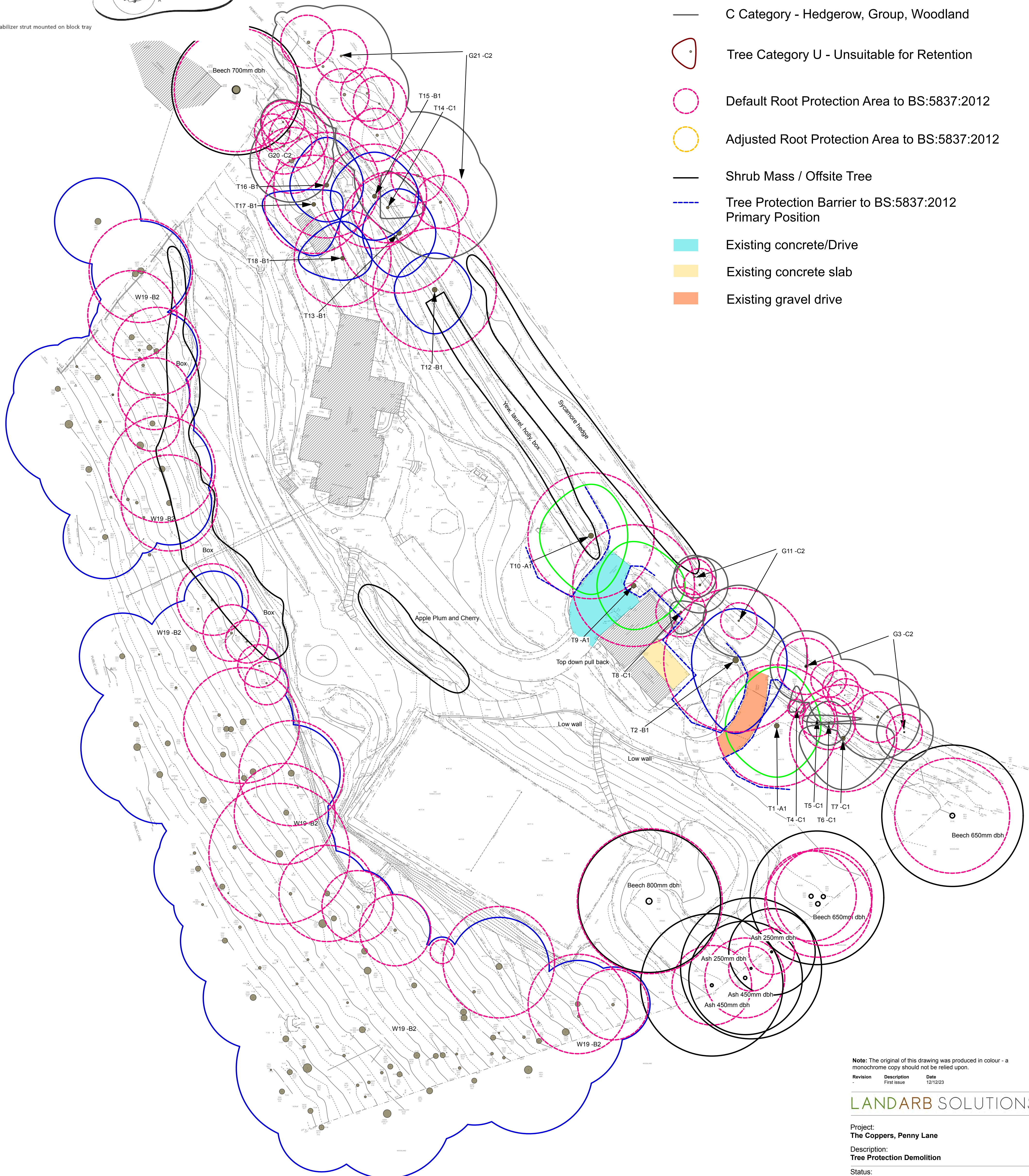
Appendix 5: Tree Protection Plan Demolition



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray



Revision	Description	Date
-	First Issue	12/12/23

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-	First Issue	12/12/23

LANDARB SOLUTIONS

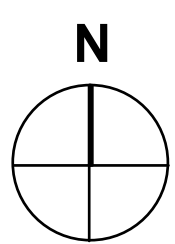
Project:
The Coppers, Penny Lane

Description:
Tree Protection Demolition

Status:
For Planning

Scale: 1:250 @A1 Drawn I Checked DP MP Date: 12/12/2023

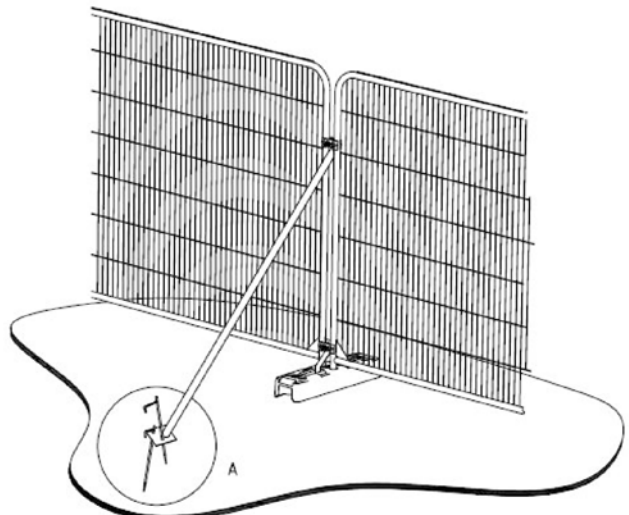
Job Number: **LAS 463** Drawing Number: **03** Revision: **-**



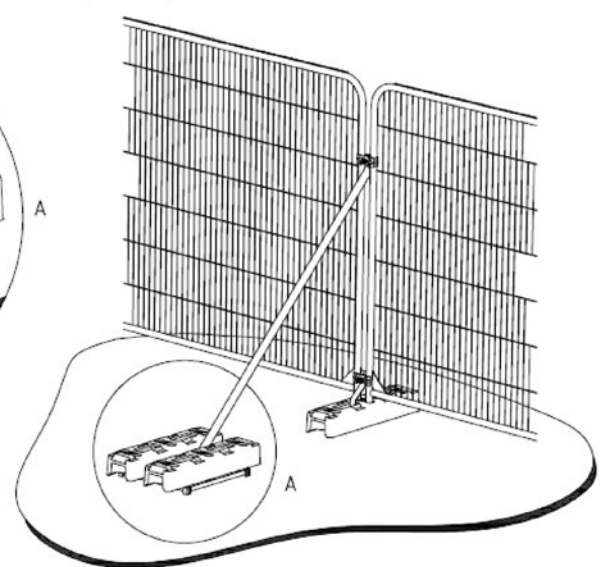
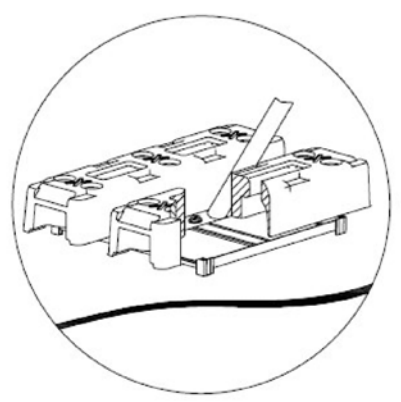
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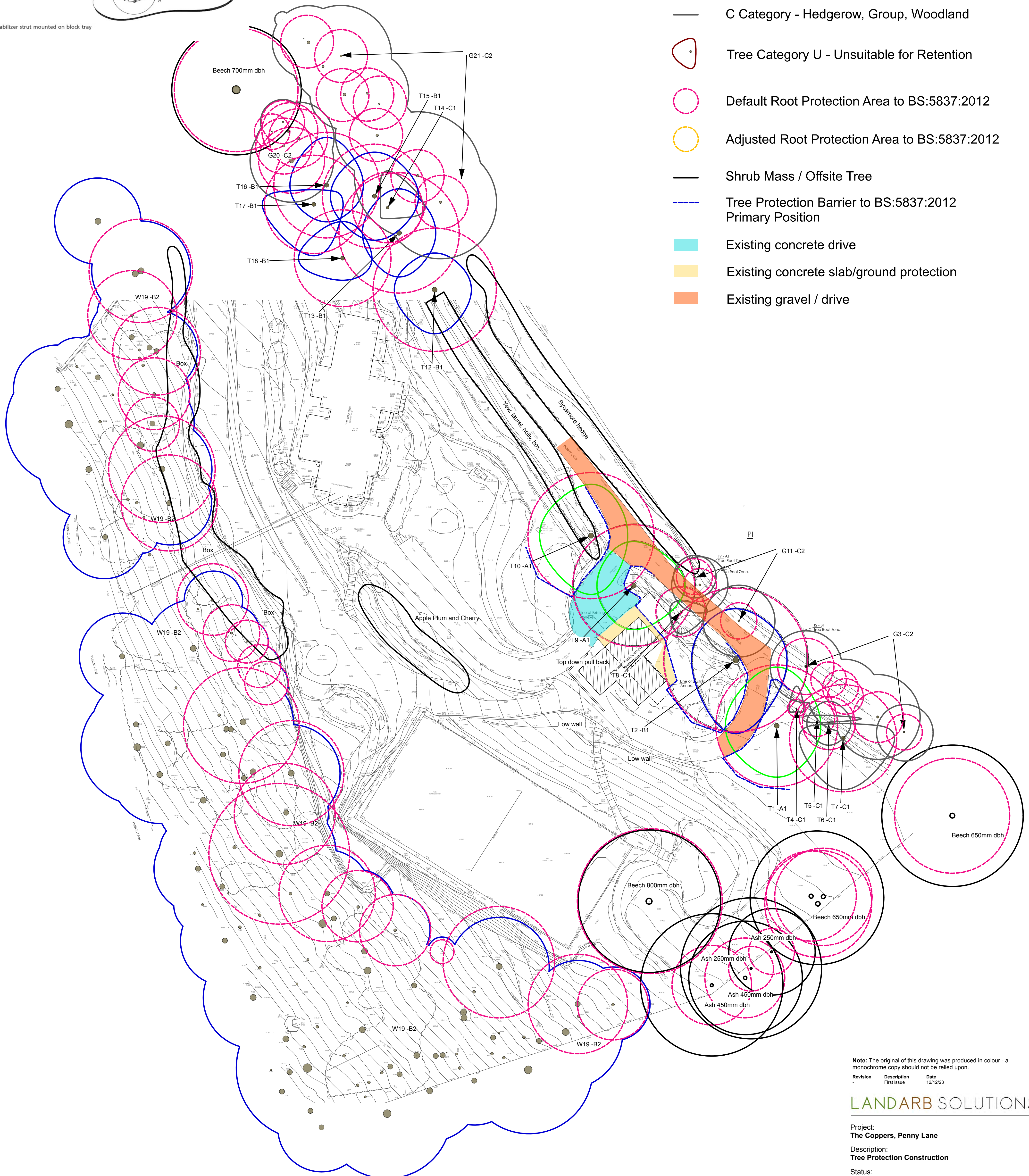
Appendix 6: Tree Protection Plan Construction



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray



A diagram of a cell. It features a large, irregular blue outline representing the cell membrane. Inside, there is a smaller, circular pink dashed outline representing a nucleus. To the right of the nucleus is a large, clear, oval-shaped vacuole that occupies a significant portion of the cell's interior.





0

50m

Note: The original of this drawing was produced in colour - a monochrome copy should not be relied upon.

Revision	Description	Date
-	First Issue	12/12/23

LANDARB SOLUTIONS

Project:
The Coppers, Penny Lane

Description:
Tree Protection Construction

Status:
For Planning

Scale:
1:250 @A1

Drawn I Checked
DP MP

Date:
12/12/2023

Job Number
LAS 463

Drawing Number:
04

Revision:
-

Appendix 7: Example ground protection

TREE ROOT PROTECTION DURING CONSTRUCTION PROJECTS

The Department for Communities and Local Government's guide **"Tree Roots in the Built Environment"** states that **"ground protection should be installed before any materials or machinery is brought onto the site"** (Section 9.3.3.2) [Crown Copyright acknowledged]

It has been shown that **"the major contribution to soil compaction from vehicle movements comes from the first passes of vehicles over the ground"** (Section 4.2.3) Thus it is essential that ground protection is specified and installed from day one of construction projects.

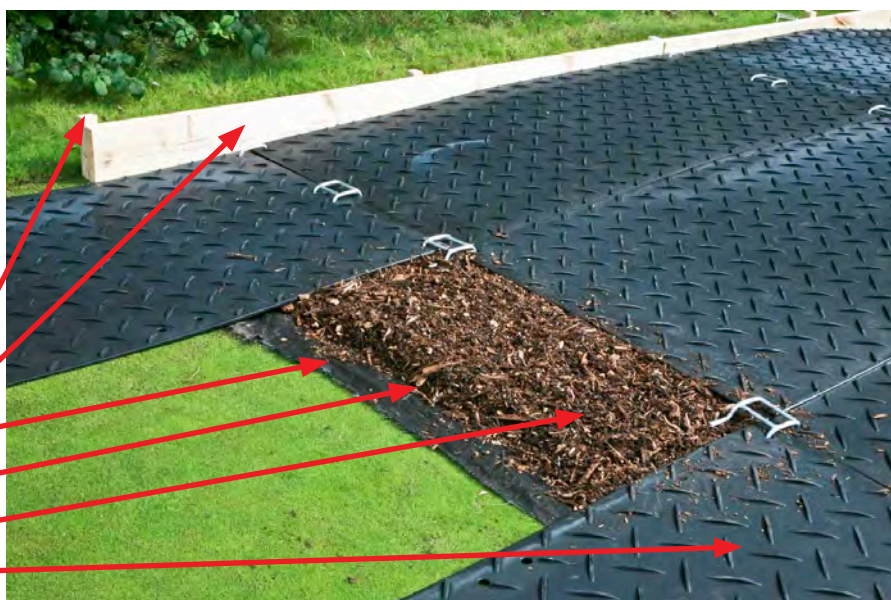
Failure to protect the ground from compaction will lead to reduced water and oxygen infiltration to the tree roots and can ultimately lead to the decline of the tree.

TREE ROOT PROTECTION METHOD

GroundGuards trackway mat systems are frequently used on construction sites to protect the ground from erosion and damage by construction vehicles. Where a temporary roadway must pass near to trees, the following extra precautions must be taken in order to provide cushioning for the ground under the tree canopy:

1. Edge rails of 200 x 50mm sawn timber should be installed where the trackway will pass under the tree canopy. These should be staked on either side of the trackway using 50 x 50 x 500mm timber stakes at 1.5m spacings.
2. A layer of geotextile membrane should be laid to cover at least the area under the tree canopy and preferably under the whole of the trackway.
3. A pad of trackway mats should be laid on top of the geotextile membrane, between the timber rails.
4. A 150mm deep layer of wood chipping should be laid over the mats
5. The trackway can then be laid so that it rises over the wood chippings as it passes under the tree canopy.

50x50x500 timber stakes
200x50 timber rails
Geotextile Membrane
Base layer of trackway mats
Wood chippings
Upper layer of trackway mats



Three trackway systems suitable for tree root protection are available for hire or sale:



MultiTrack

These mats quickly clip together and are suitable for medium weight construction traffic. Where they pass over tree roots, install a double layer of mats with 150mm of wood chippings between to cushion the ground.



MaxiTrack

This is a unique heavy duty matting system with overlapping flanges and bolt-together connection, for heavier traffic. Again, use a sandwiched layer of wood chippings where there are tree roots.



XtremeMats

For very heavy traffic, over extended periods, these rigid 4x2m mats spread the load to protect the ground. Double layering is not necessary, but 150mm of wood chippings should be used in areas with tree roots.

GroundGuards®

Ground-Guards Ltd

Rudgate • Walton
Leeds • LS23 7AU
United Kingdom

+44 (0)113 267 6000
info@ground-guards.co.uk
www.ground-guards.co.uk