

Sharon Hosegood
ASSOCIATES

ARBORICULTURAL IMPACT ASSESSMENT REPORT

SITE

Land at Rushmoor Close, Pinner HA5 2HF

CLIENT

Private Client

Sharon Durdant-Hollamby

FICFor FARborA BSc (Hons) Tech Cert (ArborA)

DATE: April 2025

OUR REF: SHA 1943

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Executive summary

This report is submitted in connection with a planning application to London Borough of Hillingdon for two new semi-detached dwellings at Land at Rushmoor Close, Pinner HA5 2HF. The information provided in this report is in accordance with the British Standard (BS 5837: 2012 “*Trees in relation to design, demolition and construction. Recommendations*” (referred to as BS).

A Tree Preservation Order exists at Brackenwood, the neighbouring property and this site, and the area is in Eastcote Village Conservation Area.

The rectangular plot has low quality trees and shrubs within the site boundaries, close to the fence lines. There is an offsite mature ash (SHA T1) close to the north-eastern corner and small trees, and conifers, just offsite.

The scheme results in the removal of only low quality trees which will have a minimal impact on the visual amenity. In total 4 category C trees will be removed, along with a clump of bamboo. The proposed building is within the root protection area of an offsite mature ash, T1, and it is essential that the foundations are non-standard to ensure maximum root retention. To inform this design, an investigation by compressed air lance will identify location and depths of roots and the arboricultural consultant and structural engineer will collaborate to provide a suitable design.

This report provides details of how trees to be retained will be protected during demolition and construction by tree protection measures and the application of arboricultural method statements. Sensitive works near trees will be carried out under arboricultural supervision and reported to the Local Planning Authority (LPA).

Contents

Heading number	Detail	Page number
1	Introduction and background	4
2	Statement of instructions and issues addressed	4
3	The site	4
4	The trees	5
5	The proposal	9
6	Arboricultural Impact Assessment	9
7	Conclusions	13
8	Recommendations	14

Appendices

1	Tree survey sheets	16
2	Tree survey plan SHA 1943 TSP	19
3	Tree protection plan SHA 1943 TPP	20
4	Tree surgery schedule	21
5	Tree protection specification	23
6	Draft method statements incorporating site supervision and house deck solution brochure.	29
7	Tree related legislation and policies affecting the site	35
8	Statement of methodology and reference material	41
9	Caveats & Exclusions	43
10	Experience and qualifications of author	45
11	Glossary	47

1. Introduction:

- 1.1. This report accompanies a planning application to London Borough of Hillingdon for two new, semi-detached dwellings at Land at Rushmoor Close, Pinner HA5 2HF. The work is in accordance with BS 5837:2012 '*Trees in relation to design, demolition and construction. Recommendations*' (referred to as BS).
- 1.2. This report details tree condition, the impact of the proposal on, and from, the existing trees and the measures taken to protect trees to be retained. It also includes tree surgery recommendations.
- 1.3. The survey has resulted in a layout as shown in the tree protection plan at Appendix 3. Where technical terms are used, explanations are found in the glossary.

2. Statement of instructions and the issues addressed:

- 2.1. I was instructed by Studio Kyson on behalf of a Private Client to:-
 - 2.1.1. Carry out a tree survey in accordance with BS 5837:2012 '*Trees in relation to design, demolition and construction – Recommendations*' (BS);
 - 2.1.2. Analyse the proposals and the impact on trees to be retained;
 - 2.1.3. Produce a tree protection plan, showing the location of the tree protection fencing in accordance with the BS and a specification for the protection of the existing trees;
 - 2.1.4. Provide a tree surgery schedule which includes work to facilitate construction, based on the layout of, and works to, trees due to their condition or previous management;
 - 2.1.5. Provide arboricultural method statements in as much detail as is practical at this stage.
- 2.2. The issues addressed are tree condition, and how the proposal impacts on the site and vice versa.

3. The site:

- 3.1. The site is a rectangular fenced off garden to the north of Brackenwood, High Road, Eastcote. The northern boundary abuts the end of the cul de sac Rushmoor Close. To the east is 5 Rushmoor Close (on northern side) and a property next to Brackenwood. To the west is 8 Rushmoor Close and a property next to Brackenwood.

3.2. The plot is screened on the southern aspect by a line of conifers just beyond the site boundary, and partially screened by trees and shrubs on the western boundary (both on and offsite). There is a mature ash tree (SHA T1) growing right next to the fence in the north-eastern corner. Within the site are a number of stumps which appear to be from shrubs which have been removed.



Plan 1 – extract from Site Map from Rushmoor Close Planning Brochure

3.3. *Site soils:* An assessment of soils on-site was carried out by a desktop analysis using the National Soil Resources Institute website which identified the soils as likely to be slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils. This is a guide only and detailed on-site soil analysis should be undertaken by the project engineer to inform the foundation design.

4 The trees:

4.1. *Generally:* There are 9 individual trees, 2 groups, 1 shrub group and 1 hedge which form the subject of this survey, 7 of which are offsite. Full details are found in the survey sheets at appendix 1 and their location on the tree survey plan *SHA 1943 TSP* at appendix 2.

4.2. *Legislation:* A Tree Preservation order (TPO 238 from 1979) exists on site. The site is within Eastcote Village Conservation Area. Further information on legislation is found at appendix 7.

4.3. *BS retention category of trees in this survey, including offsite trees:*

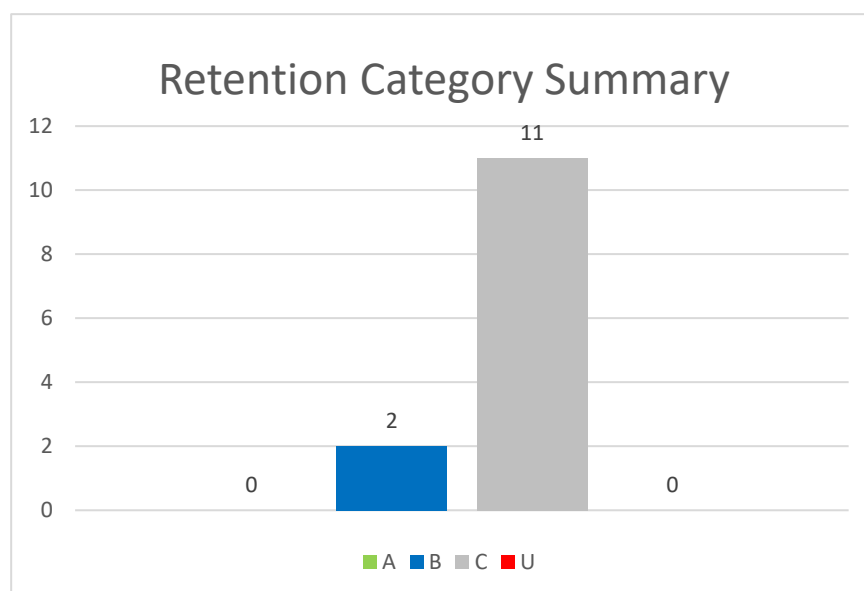


Table 1 – Retention category

A – high quality

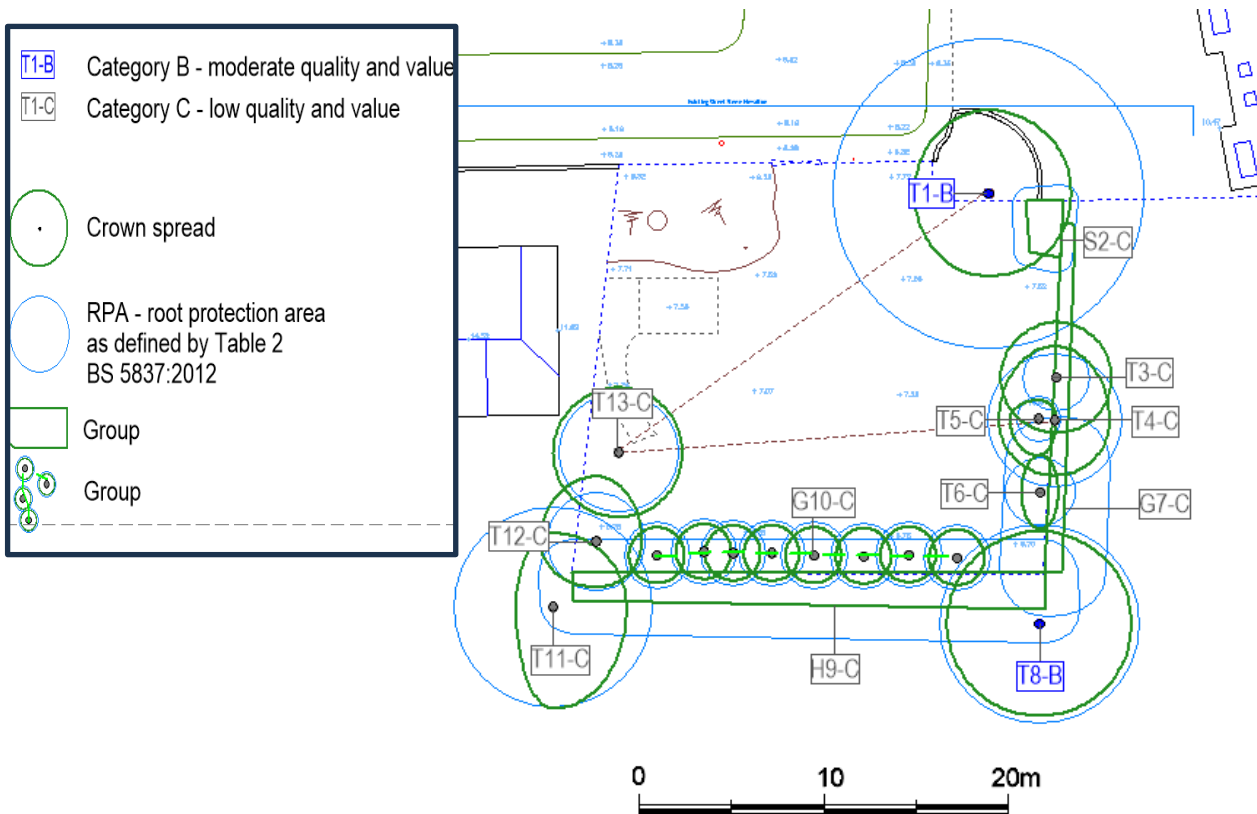
B – moderate quality

C – low quality

U – unsuitable for retention

4.4. *T1 ash - B:*

This mature tree is growing next to the fence in the neighbouring garden. It is approximately 22m tall and is prominent when viewed from Rushmoor Close. It has been crown reduced in the past with good regrowth, and as a result of this has a fairly narrow crown averaging 4.5m radius. It is densely ivy clad, although this has been severed in the past. Minor defects are recorded in the tree survey sheets and there was no obvious sign of ash dieback disease (*Hymenoscyphus fraxineus*) at the time of the survey. Its root protection area is calculated as a radius of 8.4m based on a best estimate of the stem diameter as observed from the site side. This is a maximum estimate, and its actual rooting environment is highly likely to extend into the site due to favourable conditions.



Plan 2 – extract from SHA 1943 TSP. Do not scale, north is vertical.



Photo 1 of T1 ash looking east

4.5. Other trees within the site and adjacent gardens, close to the eastern boundary:

S2 - C is a clump of bamboo which is an invasive plant spreading by tough rhizomes and is recommended for removal irrespective of the application. T3 - C is a semi-mature offsite holly approximately 6m high, which is close to the boundary fence. T4 - C is a semi mature cherry which has been topped at 7m and is regrowing. T5 - C is a young onsite cypress at 3m growing under the cherry and T6 - C is a semi mature 4m high hawthorn. To the east, just offsite, is a cypress group (G7 - C) which is of variable height, averaging at 7m and is sparser at the northern side.

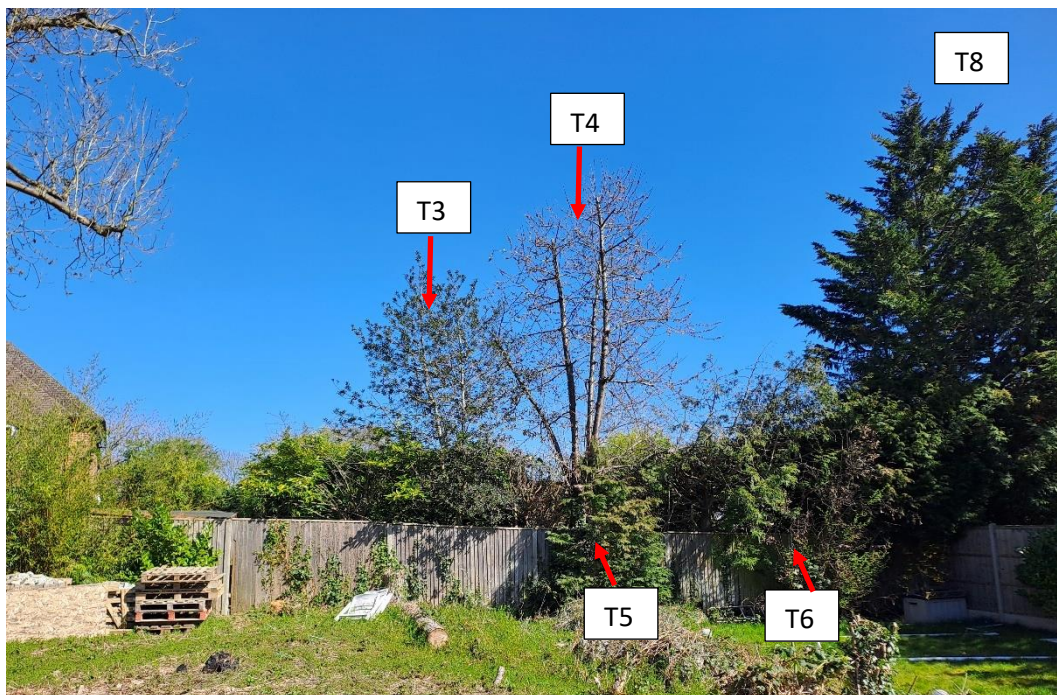


Photo 2 of the eastern boundary

4.6. Other trees within the site and adjacent gardens, close to the southern and western boundary:

T8 - B is an early mature Leyland cypress at c.14m tall in the rear garden of Brackenwood. To the immediate south of the fence is a line of Lawson cypress (H9 - C) at 7m high and yet to be managed. On the site side are 4 semi mature ornamental cypress trees at 7m and smaller ornamental Red Robin bushes and a laurel. Offsite from the south-western corner is T11 - C Leyland cypress which has a poor shape and form following topping. Within the site is T12 - C silver birch which has been very heavily topped and reduced, limiting its safe useful life expectancy. T13 - C is a low quality contorted willow with major dead wood and broken branches.



Photo 3 of the southern boundary



Photo 4 of the western boundary

5. The Proposal

5.1. For two new, semi-detached dwellings.

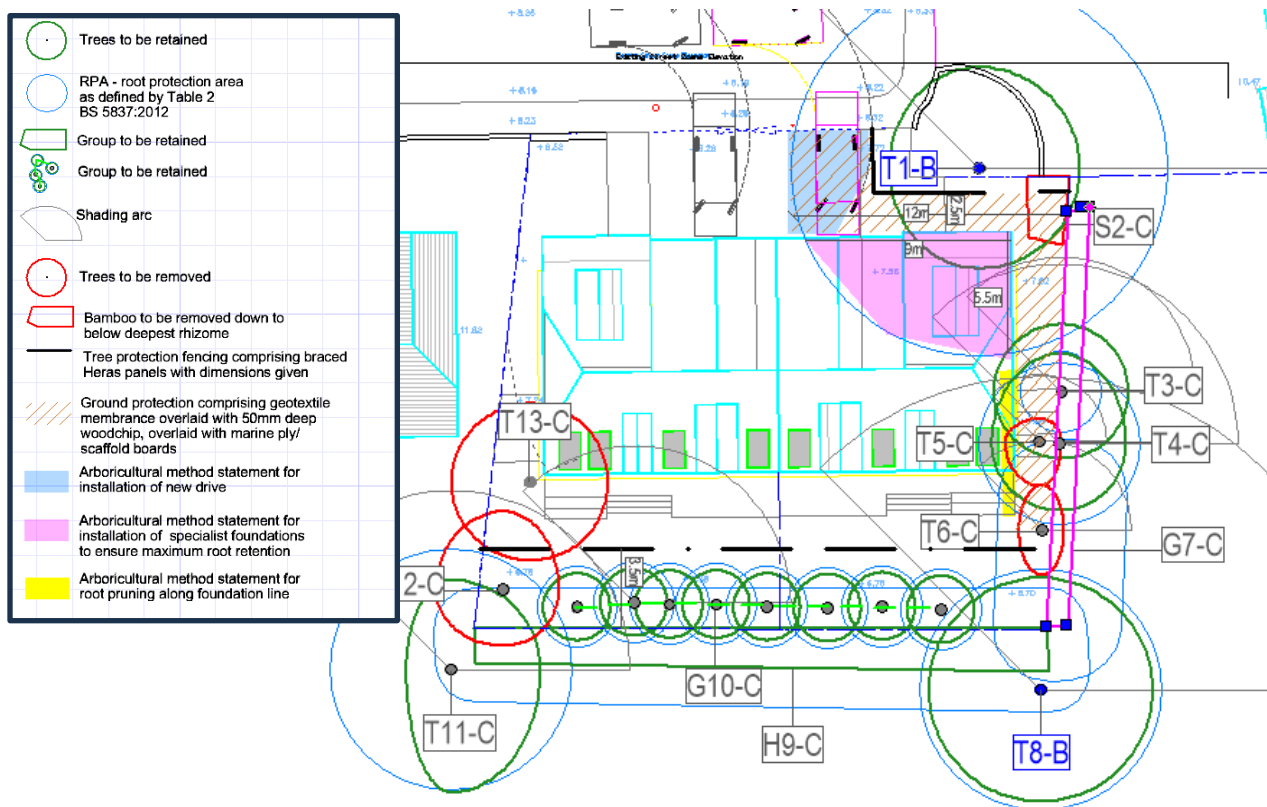
6. Arboricultural impact assessment:

6.1. *Summary of the impact on trees:* Development can adversely impact on trees by causing them to be removed to facilitate the development, or in the future, by adversely affecting their potential for retention through disturbance in root protection areas (RPAs) or through post development pressure to prune or remove.

6.2. Tree roots can be asphyxiated and die if the rooting zone becomes compacted and soil structure damaged which can easily occur, particularly on clay soils, even with the passage of light vehicles. At the design stage, disturbance within the RPA should be avoided. If unavoidable (which may need demonstrating), consideration must be given to any construction activity such as demolition, including removal of existing hard surfaces, changing soil levels and the provision of services where within RPAs, as well as new surfaces and structures.

6.3. Tree removals:

Trees/scrub/groups to be removed are identified as red shapes on the tree protection plan SHA 1943 TPP at appendix 3 and detailed in the tree surgery schedule at appendix 4.



Plan 3 – extract from SHA 1934 TPP.

6.4. Tree protection:

Trees to be retained will be protected during works by a combination of tree protection fencing and ground protection in accordance with the specification at appendix 5, at the locations shown on the tree protection plan SHA 1943TPP at appendix 3. The tree protection will be inspected by the Arboricultural Consultant prior to works commencing and inspected at intervals to be agreed. It is to be regarded as sacrosanct until the external works phase.

6.5. *Impact on the crowns:*

The ash tree has a high crown but due to the proximity of the building, even with the roof style, the lower branches will need to be pruned back on the site side to enable construction. The remainder of the crown will be able to grow over the roof of the proposed dwelling.



Photo 5 showing proposed pruning to facilitate construction (red line)



Elevation from Planning Brochure

6.6. *Impact on the roots:*

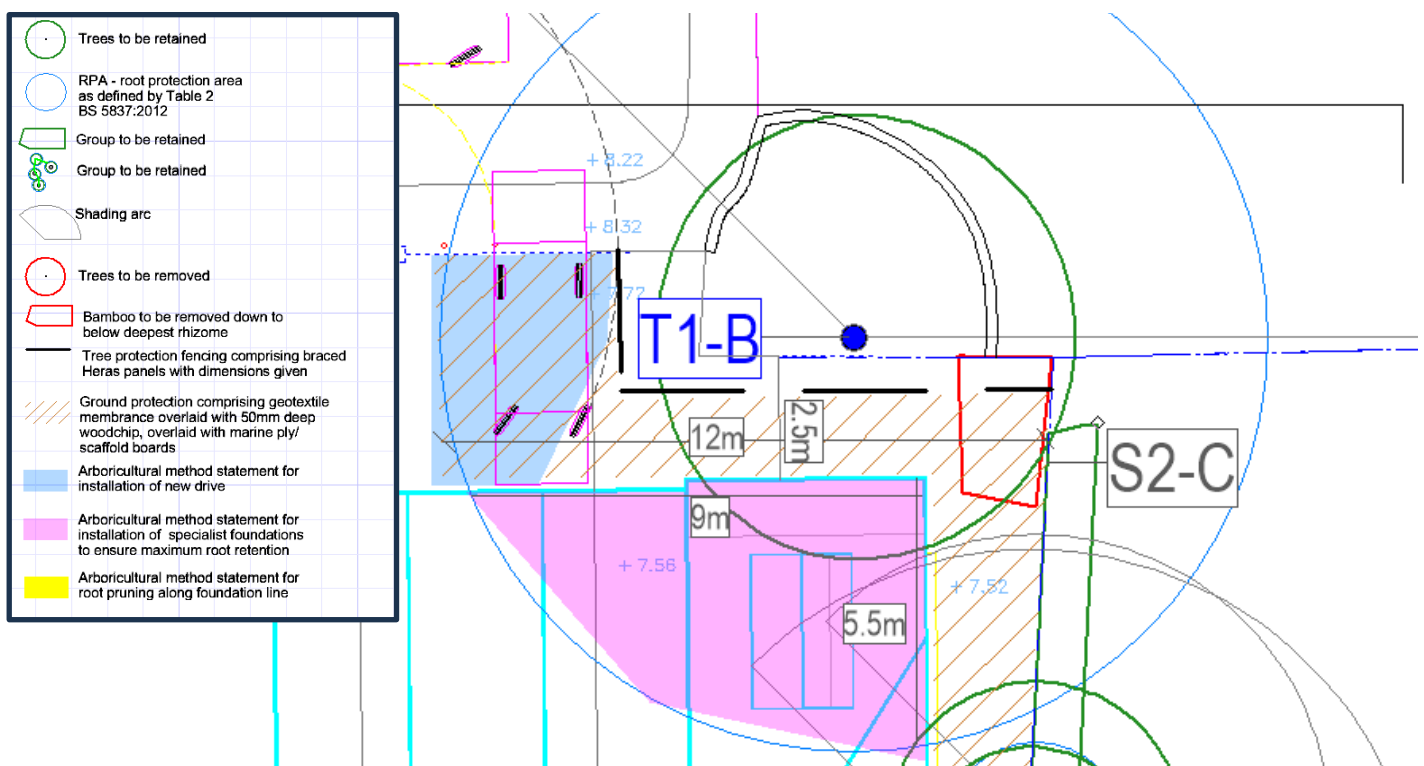
- 6.6.1 The footprint of the building is within the root protection area of T1 as shown by the pink shaded area on the plan extract overleaf. This 36.4 square metres (16.5% of 221 square metres) and is 2.6m from the edge of the building to the trunk. As it is highly likely that there will be tree roots in this area, it is essential that a non-standard foundation is designed to ensure root retention under the building. A potential solution is not piling in the root protection area and cantilevering the beam to the corner. The depth of the beam must be no deeper than the shallowest root with a diameter greater than 20mm.

6.6.2 A root investigation by compressed air lance, such as used here

<https://www.ruskins.co.uk/airspade> will take place under arboricultural supervision to map the tree root extent and depth of shallowest roots in the pink area on the plan below. This will inform foundation design, but the consequences of this is that the finished floor level and ridge level may rise. Anti-heave measures depth will need to be considered in the structural design. Rain water goods must direct rain water to the root protection area.

6.6.3 An alternative proprietary method is found here

<https://abbeypynford.co.uk/products/treesafe/> with the relevant brochure found at appendix 6.



Plan 4 – extract from SHA 1934 TPP.

6.6.4 The new drive and parking area will be designed with a minimal dig and porous construction in accordance with the draft method statement at appendix 6. This will tie in with the level threshold and is dependent on the root survey findings.

6.6.5 The foundation near T4 cherry is on the outer edge of the root protection area, therefore care will be taken by root pruning along the building line as shown edged yellow on the plan. This will take place in accordance with the arboricultural method statement at appendix 6.

6.7 Liveability:

6.7.1 *Tree removals:* The visual impact of the tree removals will be small and highly localised. T12 silver birch has been inappropriately heavily pruned, and T5 and T6 are small.

6.7.2 *Shade:* The southern hedge H9 will cast some shade but can be managed by regular hedge maintenance. There will be some shade from offsite Leyland cypress T8.

6.7.3 *Proximity of the ash tree:* Regrowth from the pruned lower branches of the ash tree will need to be pruned back periodically (subject to TPO/Conservation Area consent) to ensure a reasonable relationship between the tree and the building. Gutter brushes are strongly recommended to help manage the leaf litter in the gutters.

7. Conclusions:

7.1. The scheme results in the removal of only low quality trees which will have a minimal impact on the visual amenity. In total 4 category C trees will be removed, along with a clump of bamboo. The proposed building is within the root protection area of an offsite mature ash, T1, and it is essential that the foundations are non-standard to ensure maximum root retention. To inform this design, an investigation by compressed air lance will identify location and depths of roots and the arboricultural consultant and structural engineer will collaborate to provide a suitable design.

7.2. This report provides details of how trees to be retained will be protected during demolition and construction by tree protection measures and the application of arboricultural method statements. Sensitive works near trees will be carried out under arboricultural supervision and reported to the Local Planning Authority (LPA).

7.3. The scheme adheres to the following policies (see appendix 7 for further details)

Policy	Compliance demonstrated (in relation to arboriculture)
NPPF 2024 193 (c)	The development proposal does not result in the loss or deterioration of ancient woodlands or ancient and veteran trees.
London Borough of Hillingdon Local Plan 2020 policy DMHB 14	A) this development retains existing trees of merit D) this report supplies the requested information in relation to existing trees, not new planting which is beyond the scope of this report.

Table 2 – policy impact

8. Recommendations:

- 8.1. That a copy of this report, and subsequent more detailed arboricultural method statement, is kept on site, including A3 colour copies of the tree protection plan. The arboricultural documents will be part of site induction by the main contractor to all sub-contractors.
- 8.2. That this report and tree protection plan is referenced in the Construction Logistics Plan.
- 8.3. That the arboricultural method statements are developed further and are observed by all site personnel and supervised at key stages by the project arboricultural consultant. Short supervision reports are to be written after each inspection as a record of compliance and audit trail to the Local Authority.
- 8.4. That the foundation design takes into account trees to be retained, trees to be removed and trees to be planted. This must follow a root investigation of T1.
- 8.5. That there are no ground level changes within the area shown on the plan by tree protection fencing. A meeting is to be held with the Civils team and structural engineer and the arboriculturist.
- 8.6. That the line of the underground services should be ideally located outside of Root Protection Areas. However, as a precaution the final service plan should be assessed by an arboriculturist. If it is unavoidable that services are to be located in RPAs, then a method statement must be produced. A meeting is to be held with the Civils team and the arboriculturist.
- 8.7. That the landscaping scheme includes a mix of trees from a cross section of species to ensure biosecurity against host specific pests and diseases. The trees must be planted and maintained in accordance with BS 8545:2014 *Trees: from nursery to independence in the landscape – Recommendations*. The landscaping scheme should include enriched biochar around new planted and existing trees.
- 8.8. That no tree works take place until consent is granted other than the removal of dead and broken precarious branches
- 8.9. That the tree protection fencing and ground protection as detailed in the report are installed before machinery enters the site and remains in place until the soft landscaping stage.

- 8.10. That the drainage strategy detailing on and/or offsite drainage works, including SUDS, is reviewed by the arboricultural consultant to ensure minimum impact on trees to be retained and is mindful of new trees to be planted.

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Director

Sharon Hosegood Associates Ltd

Appendix 1

Tree survey sheets

Tree Number	Botanical Name (Common name)	Age	Dia (mm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m)	RPA (m ²)	Comments	Recommendations
T1	Fraxinus excelsior (Ash)	M	700	1	22(5)	25	4.5	4.5	4.5	4	Good	40+	B2	8.4	221.7	Provides a high level of visual amenity. Prominent tree. Offsite tree. Reasonable form and condition. Stem data estimated as offsite. Ivy on tree. Unable to inspect stem due to Ivy. Historically crown reduced with good regrowth. Growing very close to boundary fence. Triple stemmed at 2.5m. Ivy has been severed in past and dead ivy stems remain. Small branch pruning wounds with pockets of decay. Average 3m regrowth.	
S2	Bamboo	Y	70	1	4(0)	6	0.5	0.5	0.5	0.5	Fair	<10	C2	0.84	2.22	Dense thicket of bamboo which could become invasive.	Install root barrier.
T3	Ilex aquifolium (Holly)	SM	150	1	6(2)	12	3	3	3	3	Fair	40+	C1	1.8	10.18	Offsite tree. Reasonable form and condition. Plotted by eye as not on topo. Stem data estimated as offsite. Low bud/leaf density.	
T4	Prunus (Prunus species)	SM	300	1	8(4)	12	4	3	3	3	Fair	20+	C2	3.6	40.72	Offsite tree. Reasonable form and condition. Stem data estimated as offsite. Topped at 7m and regrown. Large branch removal in the past which is sprouting.	

Tree Number	Botanical Name (Common name)	Age	Dia (mm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m)	RPA (m ²)	Comments	Recommendations
T5	<i>Chamaecyparis lawsoniana</i> (Lawson Cypress)	Y	100	1	3(0)	25	1	1	2	1.5	Fair	20+	C2	1.2	4.52	Reasonable form and condition. Plotted by eye as not on topo. Unbalanced crown shape. Crown distorted due to group pressure. Growing under canopy of cherry.	
T6	<i>Crataegus monogyna</i> (Hawthorn)	SM	70	5	4(0)	11	2	1	2	1	Fair	20+	C2	1.88	11.11	Reasonable form and condition. Suckers around stem base. Multiple stems at ground level. Crown distorted due to group pressure.	
G7	<i>Chamaecyparis lawsoniana</i> (Lawson Cypress)	SM	200	1	5(0)	25	2	2	2	2	Fair	20+	C2	2.4	18.1	Offsite tree. Forms a partial filtered screen. Informal hedge observed from site. Some dieback due to shading of the cherry. Denser at southern end.	
T8	<i>X Cupressocyparis leylandii</i> (Leyland Cypress)	EM	450	1	14(2.5)	28	5	5	5	5	Good	40+	B2	5.4	91.62	Offsite tree. Stem data estimated as offsite. Forms a dense screen. Good form and condition. Full Dense canopy overhanging the site. Has not been topped.	
H9	<i>X Cupressocyparis leylandii</i> (Leyland Cypress)	SM	150	1	7(2)	28	2.5	2.5	2.5	2.5	Good	20+	C2	1.8	10.18	Offsite tree. Plotted by eye as not on topo. Stem data estimated as offsite. Forms a dense screen. Good form and condition. Part of linear group. Unmanaged line of 5 of site trees forming a hedge. Has not been managed.	

Tree Number	Botanical Name (Common name)	Age	Dia (mm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m)	RPA (m ²)	Comments	Recommendations
G10	Chamaecyparis lawsoniana (Golden Lawson Cypress), Photinia x fraserii Red Robin.	SM	150	1	7(0)	28	1.5	1.5	1.5	1.5	Good	20+	C1	1.8	10.18	Reasonable form and condition. Plotted by eye as not on topo. Forms a partial filtered screen. Part of linear group. The 4 cypress are the dominant trees and the dimensions apply to these trees. There are 3 Red Robin and 1 laurel between 2-3.5m.	
T11	X Cupressocyparis leylandii (Leyland Cypress)	EM	450	1	8(2.5)	20	4	4	5.5	2	Fair	20+	C2	5.4	91.62	Poor shape & form. Offsite tree. Stem data estimated as offsite. Forms a dense screen. End of neighbouring hedge which has been topped. Poor crown form with large Dense branch south.	

Explanation of the tree survey sheets

The tree survey has been carried out in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction – Recommendations'. Below is an annotation of the abbreviations in the sheet and their meanings.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15			
Tree Number	Botanical Name (Common name)	Age	Dia (mm)	Stems	Height (crown height)	Ult ht (m)	N	E	S	W	Cond	Life Exp	BS Cat	RPR (m)	RPA (m²)	Comments	Recommendations

1 Tree

T - Tree, **G** - Group of trees, **H** - Hedge and **S** -shrub mass

2 Species - Botanical name and (Common name)

3 Age

NP – Newly planted, **Y** – Young - an establishing tree that could be easily transplanted.

SM - Semi-mature - an established tree still to reach its ultimate height and spread with considerable growth potential.

EM – Early mature – a tree reaching its ultimate height and whose growth is slowing, however it will still increase considerably in stem diameter and crown spread.

M – Mature – a tree with limited potential for further significant increase in size, although likely to have a considerable safe useful life expectancy.

OM – Over-mature – of an age where the mature size of the tree can no longer be maintained, and adaptive growth strategies such as 'retrenchment' (growing down) are commencing. These strategies should not be confused with senescence or a moribund condition, as a good life expectancy can remain.

V – Veteran/Ancient – either a tree older than typical for the species, or a tree showing signs of age, and of great ecological, cultural or aesthetic value.

4 Dia (mm)

Diameter of the stem in millimetres at 1.5m above ground level for single stemmed tree or in accordance with Annex C of BS 5837 for multi-stemmed trees or trees with low forks or irregular stems.

5 Stems

Number of stems. Multi-stemmed is m/s.

6 Height (Crown height)

Height in metres from the ground to the top of the crown.

(Crown height) – height of canopy above ground level.

7 Ult ht (m)

Height in metres that could be reasonably expected for the species given its condition, past management and location.

8 NSEW

The crown spread from the trunk to the tips of the crown at the four cardinal points.

9 Cond

Physiological condition. Good, fair, poor or dead.

10 Life Exp

Estimated remaining contribution in years; <10, 10+, 20+ and 40+.

11 BS Cat

Category in accordance with Table 1 and section 4.5 of BS

U – unsuitable for retention. Existing condition is such that they cannot be realistically retained as living trees in the context of the current land use for longer than 10 years. Note, category U trees can have existing or potential conservation value which might be desirable to preserve.

A – high quality and value (non-fiscal) with at least 40 years remaining life expectancy.

B – moderate quality and value with at least 40 years remaining life expectancy.

C – low quality and value with at least 10 years remaining life expectancy, or young trees with a stem diameter below 150mm.

A, B and C category trees are additionally graded into: 1 – mainly arboricultural values, 2 – mainly landscape values and 3 – mainly cultural values including conservation.

12 RPR (m)

RPR – Root protection area radius (m).

13 RPA – Root protection area (m²)

14 Comments

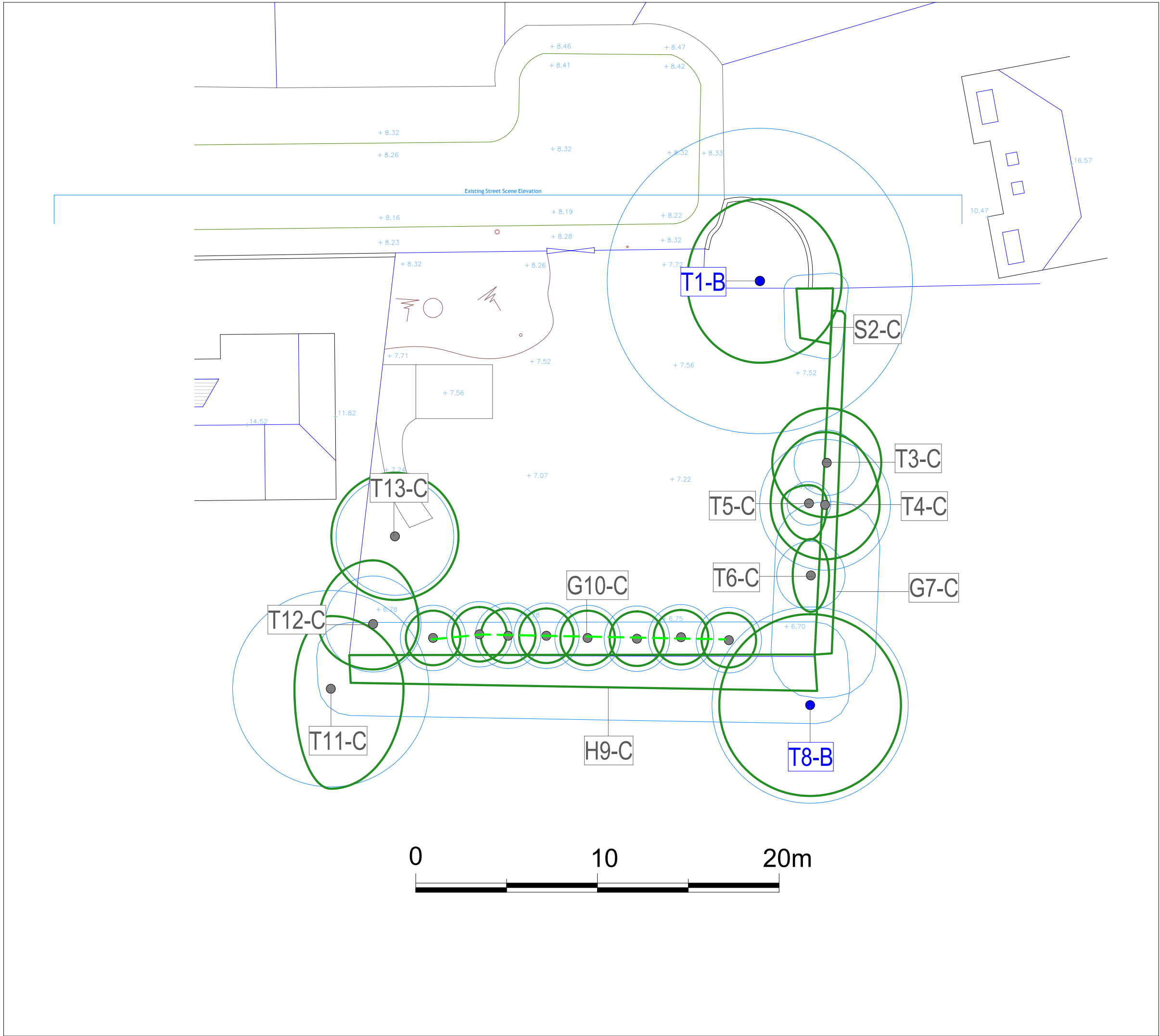
Detailed comments about the tree.

15 Preliminary recommendations

Recommendations based on the tree's conditions and its current surroundings.

Appendix 2

Tree survey plan SHA 1943 TSP



T1-B Category B - moderate quality and value
T1-C Category C - low quality and value

Crown spread

RPA - root protection area
as defined by Table 2
BS 5837:2012

Group

Group

Notes

1. Contractors to check all dimensions on site
2. Discrepancies must be reported to the Arboricultural Consultant before proceeding
3. The original of this drawing was produced in colour, a monochrome copy should not be relied upon.
4. It is the responsibility of the contractor to ensure necessary consents for tree works are in place
5. This drawing is copyright
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Rev : Description : Authorized :



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Client

Private client

Site Address

Land at Rushmoor Close, Pinner HA5 2HF

Drawing Title Orientation Drawn Authorized

Tree Survey
Plan



ND-H

SMD-H

Date Drawing Number Scale Drawing Status

2.4.25

SHA 1943 TSP 1:200@A3 For Issue

Revision

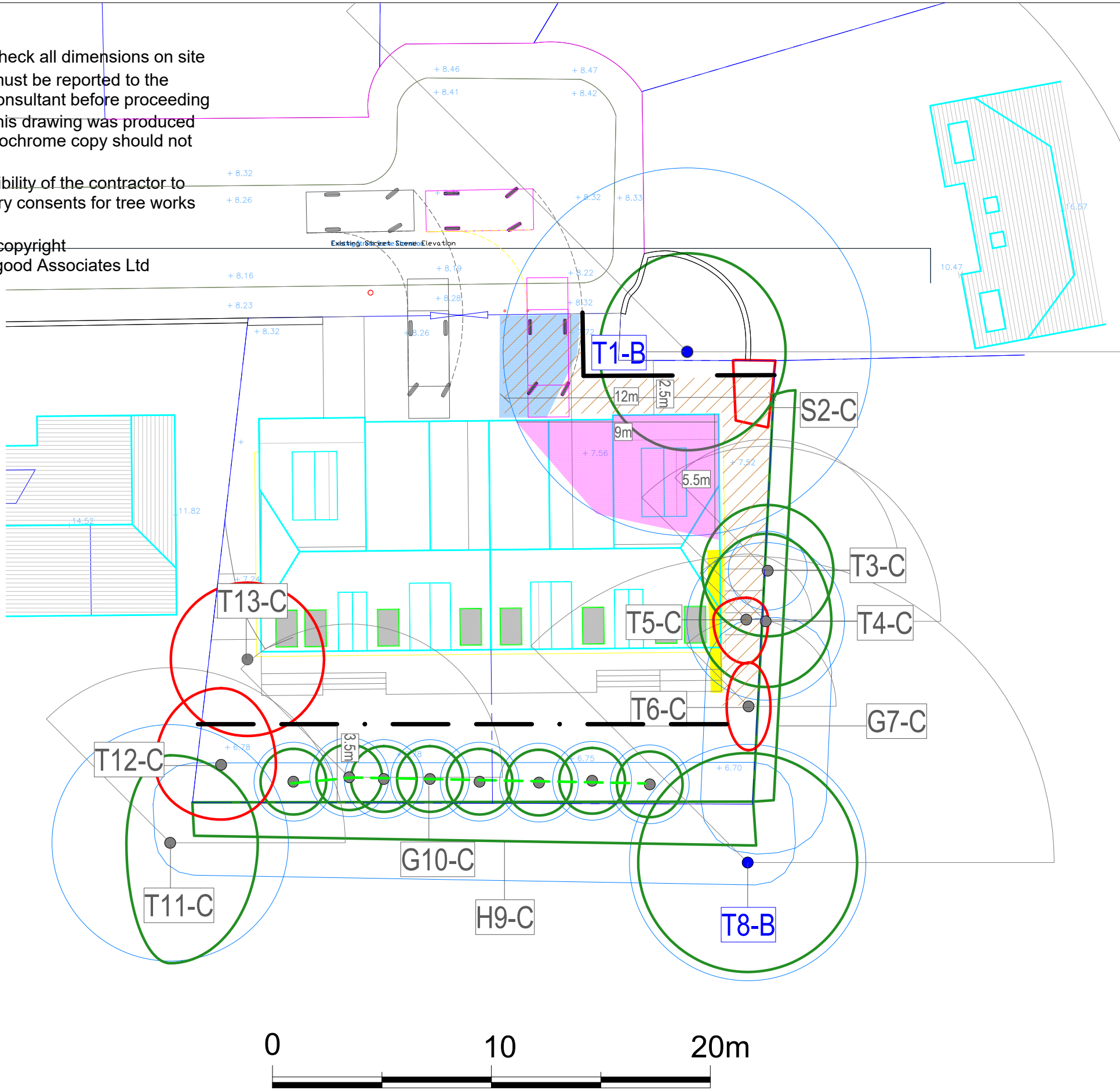
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Appendix 3

Tree protection plan SHA 1943 TPP

Notes

1. Contractors to check all dimensions on site
2. Discrepancies must be reported to the Arboricultural Consultant before proceeding
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4. It is the responsibility of the contractor to ensure necessary consents for tree works are in place
5. This drawing is copyright
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- Trees to be retained
- RPA - root protection area as defined by Table 2 BS 5837:2012
- Group to be retained
- Group to be retained
- Shading arc
- Trees to be removed
- Bamboo to be removed down to below deepest rhizome
- Tree protection fencing comprising braced Heras panels with dimensions given
- Ground protection comprising geotextile membrane overlaid with 50mm deep woodchip, overlaid with marine ply/ scaffold boards
- Arboricultural method statement for installation of new drive
- Arboricultural method statement for installation of specialist foundations to ensure maximum root retention
- Arboricultural method statement for root pruning along foundation line

Rev :	Description :	Authorized :
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Site Address
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Drawing Title	Orientation	Drawn	Authorized
Tree Protection Plan		ND-H	SMD-H
Date	Drawing Number	Scale	Drawing Status
7.4.25	SHA 1943 TPP	1:200@A3	For Issue
Revision			

Appendix 4

Tree surgery schedule

Tree surgery schedule

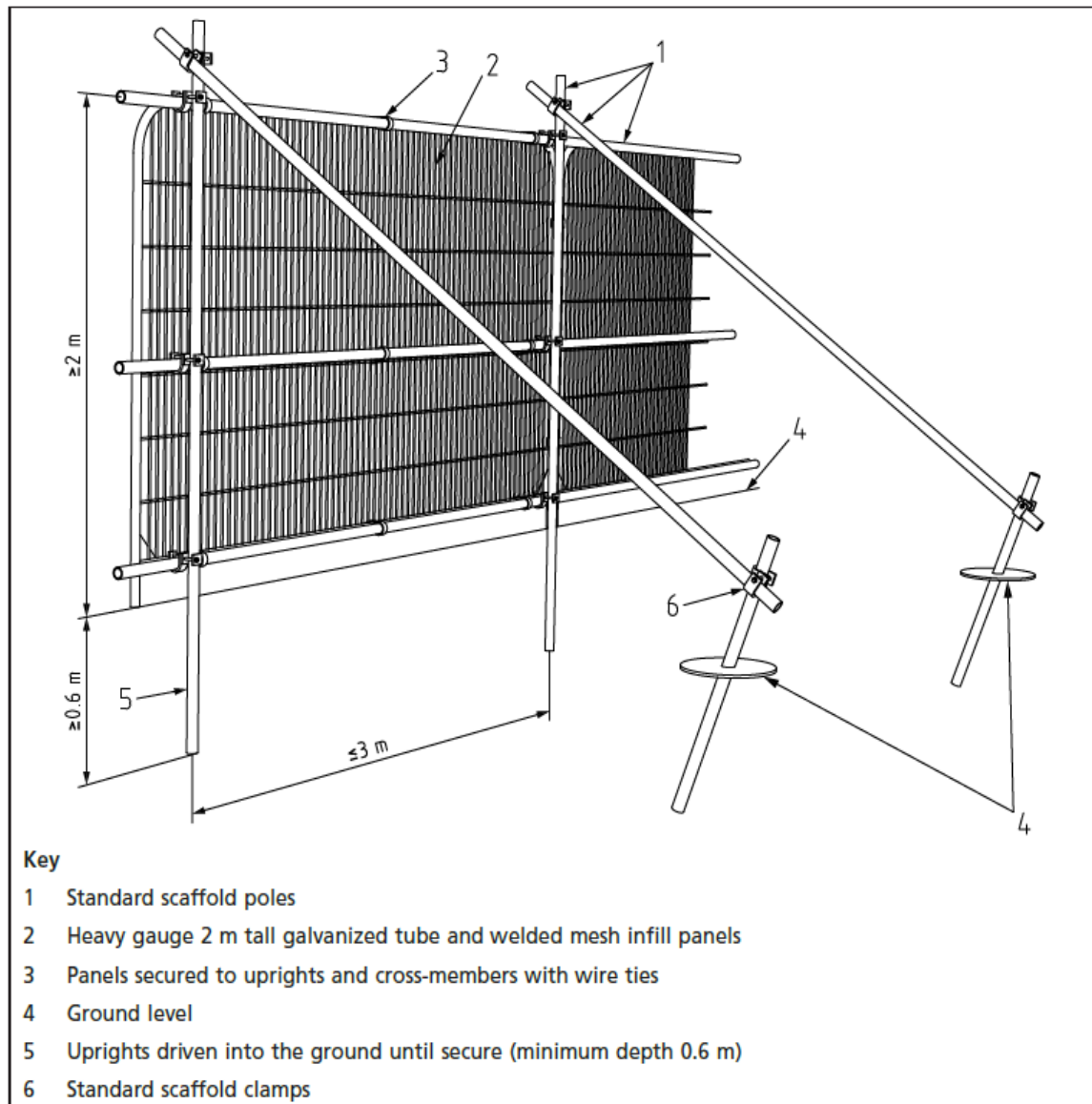
All works to be carried out in accordance with BS 3998:2010 'Tree works – Recommendations'. All pruning cuts to be made at suitable growing points in the line with the principles of 'Natural target pruning'. An ecological check is required by a competent person prior to tree works being carried out and the ecological report referred to. Works should not take place until planning permission is granted and all pre-commencement conditions are discharged. This must be communicated to the tree surgeon and storage agreed with the demolition/main contractor.

Tree no.	BS category	Species	Proposed works	Reason
T1	B2	Ash	Remove the lowest branches to ensure clearance for the 7.501m high roof. Remove any dead wood overhanging the site.	To facilitate construction
S2	C2	Bamboo	Remove bamboo and all rhizomes, digging down deep enough to ensure all rhizome removal.	Good practice
T5	C2	Lawson Cypress	Remove sapling and roots	To facilitate construction
T6	C2	Hawthorn	Remove tree and roots	To facilitate construction
T12	C2	Silver Birch	Remove tree and roots	To facilitate construction
T13	C2	Weeping Willow	Remove tree and roots	To facilitate construction

Appendix 5

Tree protection specification

Figure 2 Default specification for protective barrier



Tree protection fencing specification from BS 5837:2012 Figure 2

Section 6.2.2 of BS.

Barriers should be fit for purpose of excluding construction activity and appropriate to the degree and proximity of work taking place around the retained trees(s). Barriers should be maintained to ensure that they remain rigid and complete.

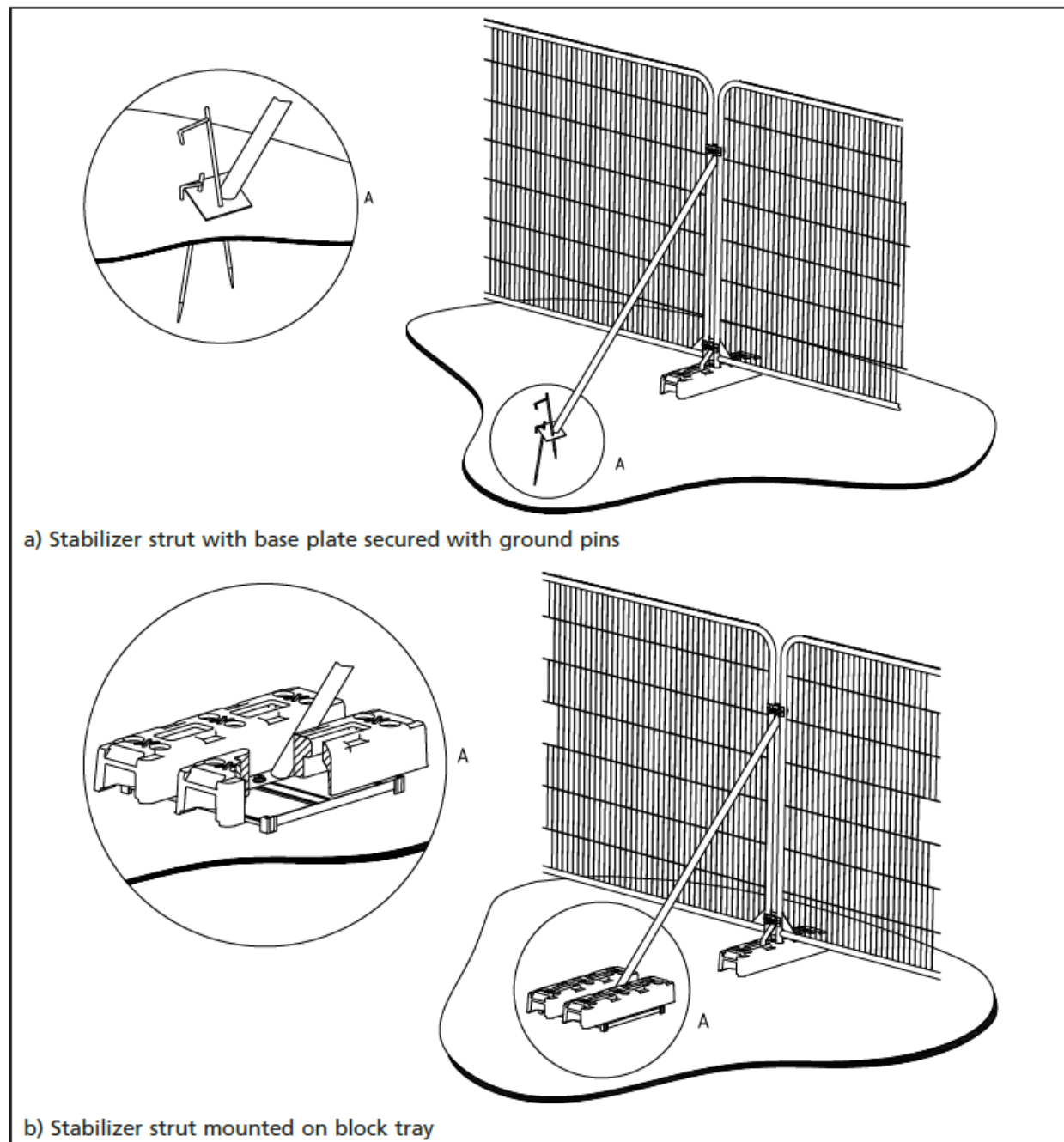
The default specification is shown above at Figure 2. Care should be taken when locating the vertical poles to avoid underground services and structural roots. Where it is not possible to drive a pole into the ground, for example on hard surfacing, figure 3 overleaf, applies.

The location for the tree protection fencing is shown on the tree protection plan delineated by a black dashed line. The location of the fencing is on the outer edge of the root protection area and the dimensions from fixed points are shown on the drawings. All weather signs should be affixed to the barriers, no more than 12m apart.

BRITISH STANDARD

BS 5837:2012

Figure 3 Examples of above-ground stabilizing systems



Suggested site warning sign format



Ground protection during construction

Where working space 'temporary access' is needed within the root protection area during works, fencing should be set back the minimum amount to achieve the required room. If there is existing hard surfacing in this area, it should remain during the works as ground protection. The suitability of this surfacing for ground protection, and whether it needs to be reinforced to bear the weight of machinery, should be assessed by an engineer and discussed with an arboriculturist.

Where the set back of the fencing exposes unmade ground, the ground must be protected before any works take place on site. This is to prevent root damage and soil compaction.

The ground protection might comprise of one of the following: (section 6.2.3.3 of BS)

- A) For pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100mm depth of woodchip), laid onto a geotextile membrane;
- B) For pedestrian-operated plant up to a gross weight of 2 tonnes, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150mm depth of woodchip), laid onto a geotextile membrane;
- C) For wheeled or tracked construction traffic exceeding 2 tonnes gross weight, an alternative system (e.g. proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected.

The location for ground protection is shown on the tree protection plan by brown diagonal hatching, identified in the key.



SGN 3-02

Heavy-duty plywood set onto a compressible woodchip layer and pinned into position is suitable to spread the loading from pedestrian access.



SGN 3-05

A scaffold framework attached to the main scaffold fencing can be used to support either scaffold planks or plywood to create an elevated platform with a gap beneath.



SGN 3-06

Cellular products are a very effective means of providing ground protection where heavy vehicle use is expected. Here, it is being used to temporarily widen an existing road, to be removed once the construction is finished.

<https://www.barrelltreecare.co.uk/assets/Uploads/SGN-3-Ground-Protection-V3.pdf>

Appendix 6

Draft arboricultural method statement and house deck information brochure

<https://abbeypynford.co.uk/wp-content/uploads/2020/03/Treesafe-Brochure.pdf>



TREESAFE 

The tree friendly foundation solution



ABBAY PYNFORD



Treesafe is our patented foundation system that allows construction close to or within a tree Root Protection Area (RPA).

Benefits



Increased footprint - Treesafe creates the opportunity to increase the footprint of your site into RPA, allowing getting greater yield from your plot.



Cost certainty - By reducing the programme, prelims and eradicating the elements stated to the right, we can offer cost certainty for your project.



Faster - Treesafe is up to 70% faster than traditional methods and offers improved program certainty.



Safer - Treesafe has many features that enhance a safer environment on site, and comes with warranty provider approval: NHBC, Premier Guarantee and LABC.




Less environmental impact - Treesafe uses less concrete, requires less spoil removal, and significantly reduced vehicle and plant movement. Reducing the carbon footprint of your site.

Treesafe does not require the following elements:

- ▶ Piling mats (in 95% of projects)
- ▶ Excavations for ground beams
- ▶ Ground beam construction
- ▶ Pre-cast floor
- ▶ Sub-structure brickwork blinding within footprint
- ▶ Resources to manage the above





Treesafe is our patented foundation system that allows construction of residential or commercial structures close to, or within a tree Root Protection Area (RPA). Treesafe provides the opportunity to increase the yield of your site by allowing an increase in the footprint of your structure and/ or adding additional plots to your development.

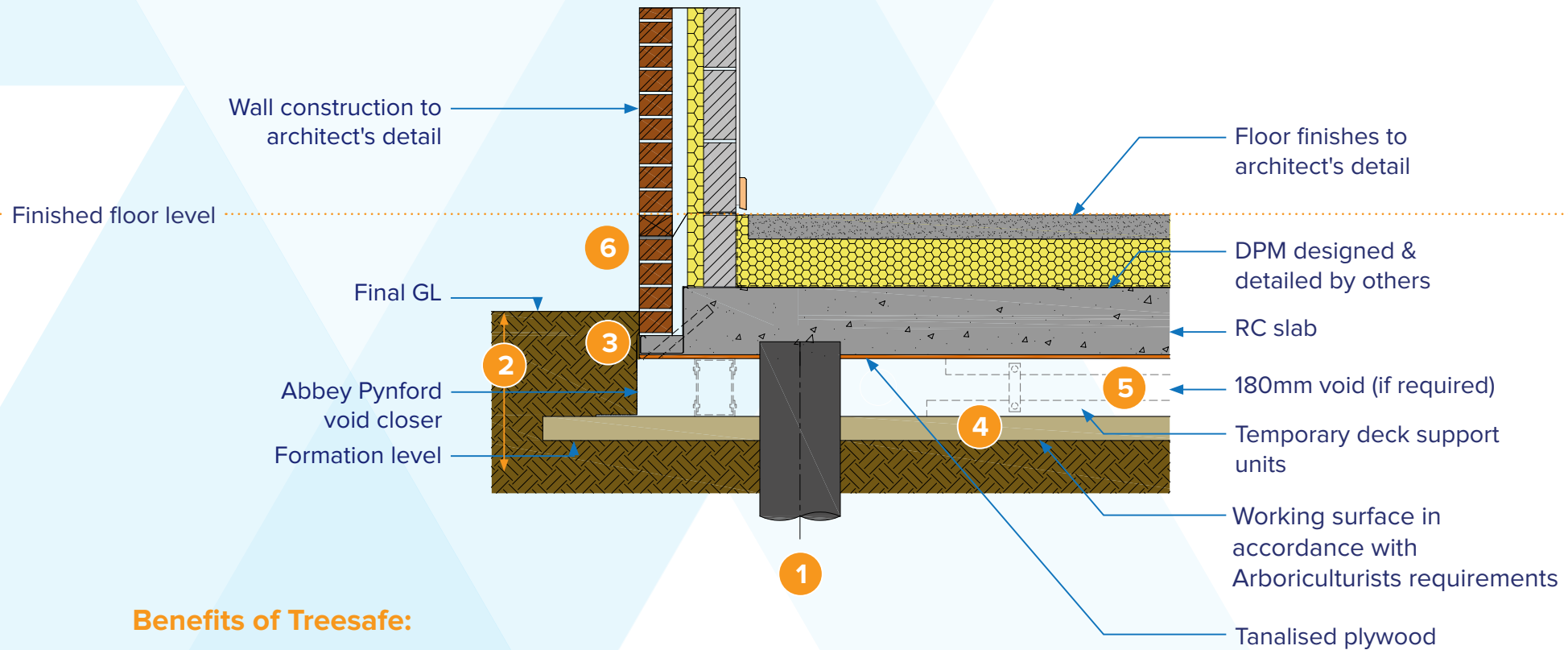
Treesafe is approved by Arboriculturists and prevents damage to tree roots in a number of ways. In preparation for piling we use air spades and hand augering techniques to identify any roots that may conflict with the proposed pile locations. If roots are present our in-house design team review and adjusted the design to accommodate them. We use a bespoke working surface to support our custom lightweight piling rigs, minimising excavation that could cause damage to tree roots. Each pile position is also sleeved, and further precautions are taken when pouring

the slab to prevent concrete leaching into the protected ground, that could cause harm to roots.

Treesafe can support a range of piling techniques, depending on ground conditions. We also offer alternative piling options, such as stone columns or reduced diameter piles.

Treesafe is a version of our Housedeck and Comdeck systems, both are BBA certified and warranty provider approved: NHBC, Premier Guarantee and LABC. All engineered solutions are fully underwritten.

Typical Treesafe detail_



Benefits of Treesafe:

- 1 Allows construction within Root Protection Areas.
- 2 Significant reduction in excavation.
- 3 Significant reduction in under build.
- 4 Bespoke working surface in place of piling mat.
- 5 Clear void to mitigate heave risk (if required).
- 6 No venting required.

Construction process_

Stages of typical slab build

Working within protected trees creates very site specific requirements. The Treesafe system is tailored to your site and specific arboricultural needs. The following covers some of our most common approaches, but not all.



Setting Out

We start by setting out the pile locations, as per the Abbey Pynford design. This takes place either directly on to the prepared ground or over a breathable geotextile membrane.



Bespoke Working Surface

Once setting out is complete a bespoke working surface is laid. We use three types of working surface: Cellweb (pictured), a concrete working surface (pictured) or granular mat. The surface type is dictated by the site requirements in conjunction with the Arboriculturist.



Hand augering

Hand augering is undertaken at all pile positions within the RPA. If roots greater than 10mm diameter are found, our in-house design team re-analyse the slab. A new pile position is proposed and re-augered. Once all positions are confirmed to be root free, piling can commence.



Piling

The piles are driven using our custom made light weight rigs, which can be supported by the bespoke working surface. This prevents the need for deep excavation for a piling mat, which would cause root damage. Each pile is then sleeved to prevent concrete leaching into the RPA.



Drainage & Services

After the piles are trimmed to cut off level the drainage and services are installed. This can be done by us or the client, project dependant.



Deck Support Units

Our patented temporary Deck Support Units (DSU) are laid out to create the void, upon which the raft will be built.



Edge Shuttering & Fix Reinforcement

Next, our patented edge system is installed on plywood, followed by the steel reinforcement to create the raft.



Concrete pour

Once final levelling is complete the concrete is poured, taking precautions to prevent concrete leaching into the RPA.



Finished structural slab

Once the slab is cured a membrane will be attached to prevent materials entering the void.

The finished slab is ready for trades on average 5-7 days after the concrete pour.

About us_

At Abbey Pynford we provide a more integrated approach to our services, offering a one stop shop to commercial contractors and private developers. Founded in 1988, Abbey Pynford Group has 30+ years of industry experience to support you through your project.

We offer a wide range of services ranging from our patented engineered foundation systems, various types of piling and underpinning.

We have our own in-house design team comprised of Structural and Geotechnical Engineers, providing underwritten design solutions across all our services.

We also have our own plant hire business providing specialist and bespoke equipment to the group and wider external market.

Our ethos is to provide a fully integrated service for our customers, providing support from conception through to construction. We always seek to provide the most cost-effective solution for your project, through innovation, product development, and a wealth of experience gained from 30+ years working in the industry.

Our services_

HOUSEDECK 

COMDECK 

TREESAFE 

FLOODSAFE 

PILING 

UNDERPINNING 



Health & Safety, Quality & Environmental Overview_



Certified H&S management system.



Certified H&S, Quality & environmental management system.



Home Builders Federation members.



ASUC founding members. Assured professional & technical competence.



Certified quality management system.



Certified quality management system.



Assured sustainability & H&S procedures. Certified quality audit beyond IOS 9001.



Backed quality assured SSIP scheme.



Certified H&S management system.



Backed quality assured SSIP scheme.



We send less waste to landfill by reducing dig and spoil removal with our foundation solutions.



We use less concrete with our foundation solutions than traditional techniques.



Through our reduced vehicle and plant movement we produce significantly less CO₂ emissions.



Treesafe offers a tree friendly way to build in Root Protection Areas. Approved by Arboriculturists.



We have 30+ years industry experience to support your project.



In-house design team and all designs and engineered solutions are fully underwritten.



Certified H&S, Quality & environmental management system and insurance.



Certified quality management system.



IMS Certified H&S, quality & environmental management systems.



Constructionline Gold members.



Certified quality management system.

Our commitment to you_

- ▶ You will receive the same **attention and quality of service** whether you are a small developer or corporate builder.
- ▶ We will provide you with a fully documented **proposal within two weeks** after receiving all required information.
- ▶ Our dedicated in-house design team, using the latest software finite element analysis, ensures that **each project is value engineered**.
- ▶ We will always **operate in the best practice**, complying with health, safety and environmental legislation.
- ▶ We promise to **serve in your best interests** and if we believe that one of our foundation systems is not the most appropriate scheme for your needs, we will advise you accordingly.

Our clients_

“ The Treesafe product is such a simple but effective method. From design through to completion Abbey Pynford offer a second to none service with excellent health and safety. ”

Colm O'Boyle, Surveyor, T&B Contractors



“ Abbey Pynford's system is the complete package offering a straightforward fully designed solution, saving us money and 6 weeks from our original programme. ”

Nick Jude, Construction Manager, Willmott Dixon



WILLMOTT DIXON

“ We have used Housedeck before and as usual this project ran very smoothly and was completed swiftly. Both the piling crew and the slab crew were excellent – nothing was too much trouble for them and the site was kept clean and tidy throughout. ”

*Tony Draper, Architect & Project Manager,
Carrington Fox*



carrington fox

“ Abbey Pynford worked fantastically well with us. Through solid communication and collaboration the construction has been a success. I would strongly recommend them for future projects. ”

*Sam Kemp, Project Manager,
Morgan Sindall Construction*

**MORGAN
SINDALL**
CONSTRUCTION





Abbey Pynford

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LU1 1UU

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e info@abbeypynford.co.uk

abbeypynford.co.uk



1.0 Tree works:

1.1 Recommendations for tree works can be found in the tree surgery schedule in Appendix 4. All works shall be in accordance with BS 3998:2010 '*Tree work. Recommendations*'. The use of a competent and insured tree surgery contractor is necessary to comply with this. The main contractor and tree surgery contractor must ensure that any necessary consents have been received from the local authority and that no protected species are harmed whilst carrying out site clearance or tree surgery works. Within root protection areas, stumps, shrubs and other vegetation must be removed by hand or using stump grinding machinery to minimize root damage of retained trees. Where poisoning of stumps is specified, this must be carried out by competent operatives. Only chemicals approved for this purpose and used in accordance with the manufacturer's instructions will be used.

1.2 The following information must be sought:

- Current employers, public and product liability insurance
- Waste carriers' licence
- Qualification and experience of key personnel, including relevant NPTC certificates
- COSHH assessment
- Tool and task based risk assessment, including a Working at Height Risk Assessment
- Site specific risk assessment
- Emergency procedure plan
- Method Statement

1.3 A list of suitable tree surgeons is found at:

<http://www.trees.org.uk/find-a-professional/Directory-of-Tree-Surgeons>

Bio security measures are important and found at:

<https://www.forestry.gov.uk/biosecurity>

2.0 Fires:

Fires on site should be avoided if possible. If unavoidable, they should be situated far enough so that there is no risk of damage to the trees, taking into consideration the wind direction.

3.0 **Site and fuel storage, cement mixing and washing points:**

All site storage areas, cement mixing and washing points for equipment and vehicles and fuel storage areas should be outside root protection areas unless otherwise agreed with the Local Planning Authority. No discharge of potential contaminants should occur within 10m of a retained tree stem or where there is a risk of run off into Root Protection Areas.

4.0 **Temporary buildings for site use:**

Site cabins, trailers and other temporary buildings can sometimes be used in root protection area if consent is agreed by the local planning authority. This can be very useful if there is a robust existing hard surfacing in place. The method for installing the buildings, and assessment of whether ground protection is needed is to be agreed with the Arboriculturist and specified prior to installation.

5.0 **Protection of tree canopies:**

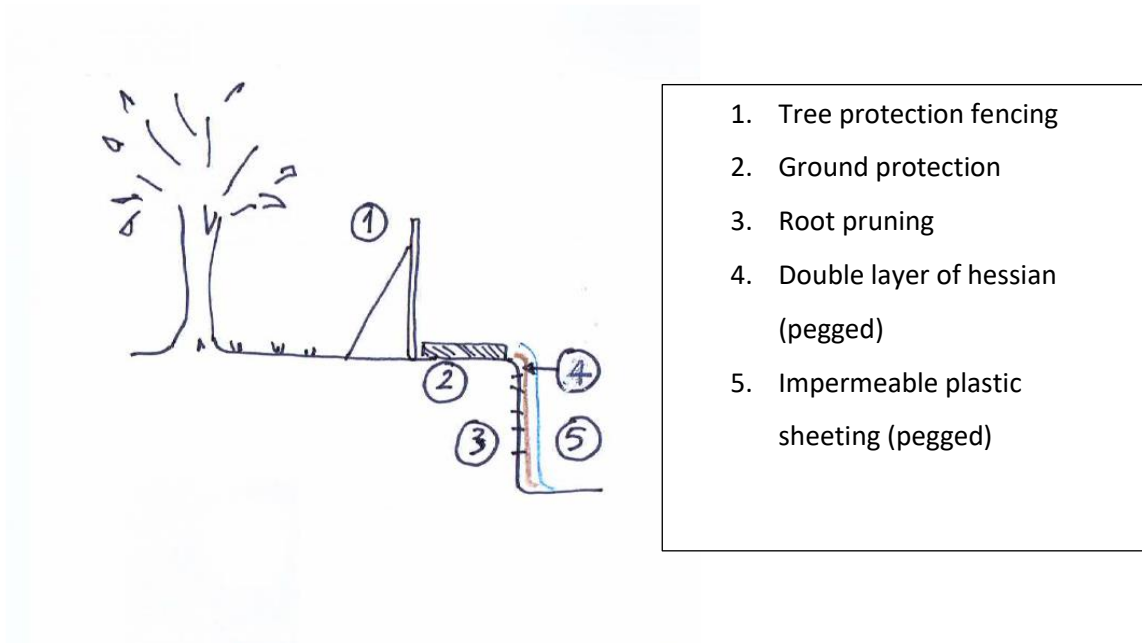
Piling rigs and cranes are often used close to trees. Work must be carefully planned so that there is sufficient room to avoid hitting the canopy during transportation or operation. Arboricultural supervision may be required, however, it is the responsibility of the contractor to assess and plan the work. Any access facilitation pruning required is detailed in the tree surgery schedule.

6.0 The following bespoke method statements will be developed further post planning:

The following are draft and detailed in the Arboricultural method statement post planning which will be developed with close team working.

7.0 **Construction of the footings near T4 (this does not apply to T1):**

Within the yellow line area on the tree protection plan, the footings will be dug in the presence of an Arboriculturist. Any roots found will be cut cleanly with bypass secateurs or a small hand saw. If a root is larger than 25mm, then an assessment will be made as to whether tree surgery is needed to compensate for root loss. A photographic record will be kept of the pruned roots. The vertical wall of the trench (on the tree side) will be faced with a double layer of damp hessian pegged in place to prevent it from sagging. The purpose of this is to prevent desiccation of the roots. Work should not take place in very hot, dry, or frozen conditions to avoid root damage. The hessian will then be faced with an impermeable plastic sheet to prevent the alkalinity of the concrete scorching the cut ends of the roots. A simple diagram is found below:



1. Tree protection fencing
2. Ground protection
3. Root pruning
4. Double layer of hessian (pegged)
5. Impermeable plastic sheeting (pegged)

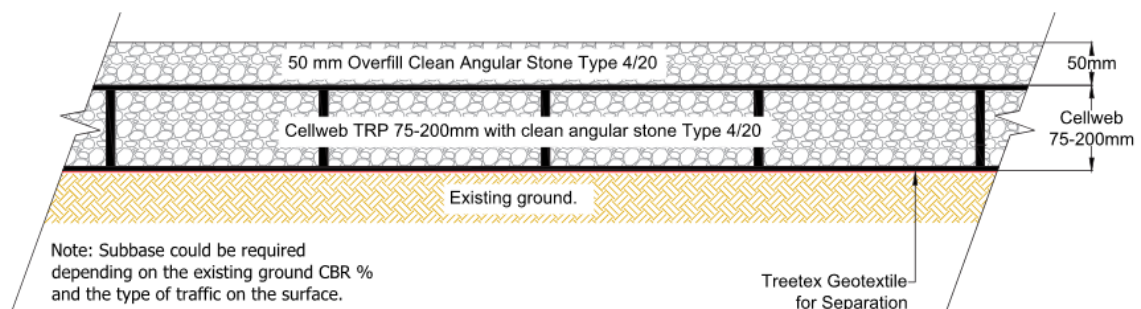
8.0 Services and drainage:

The final service plan will be reviewed by the arboriculturist to ensure that the principle of no new excavation in the root protection areas of trees to be retained is observed. If this is not possible, then this report will be updated and sent to Hillingdon Council for approval and the principle of National Joint Utilities Council Volume 4 will be followed which is likely to require trenchless techniques. Any excavations within the root protection area will be observed by the arboricultural consultant.

9.0 New Hard landscaping:

The areas to which this apply are shown on the tree protection plan *SHA 1677 TPP* at appendix 3 by blue shading. The principle is that the roots will be unaffected by level changes and lack of opportunities for gaseous exchange and water infiltration. All hard surfacing within the site boundary adjacent to trees to be retained will be porous. The purpose of the method statement is to ensure that tree roots are retained and that they can function. Therefore, digging down, compacting the soil and creating an impermeable surface will be prevented. A method to spread and support the load of the hard surface and anticipated usage without causing compaction of the soil structure beneath will be used. The exact specification of the hard surface is a matter for the engineer and architect, however the principles are as follows:

- Under arboricultural supervision skim off the grass using a spade cutting horizontally under the turf. Remove the turf from the root protection area. The depth of the excavation will be determined by the arboriculturist, and gentle scraping by a spade will continue until the shallowest root with a diameter greater than 25mm, or a matt of fine fibrous tree roots, are encountered.
- Immediately after an even soil grading has been achieved, a geo textile membrane will be laid flat on the surface. The use of a geotextile membrane (such as Tree Tex T300) will help support the sub-base and be a partial filter (a last line of defense) for contaminants such as oil and road salt. This works by laterally diffusing the contaminants over a wider surface area so that the effect is minimized.
- Lay a cellular confinement system such as <http://www.geosyn.co.uk/product/cellweb-tree-root-protection> – cross section below. Install as per the manufacturers specification and to the engineers prescribed depth. Typically, this is likely to be 100 - 150mm deep. An installation method is found at <https://www.geosyn.co.uk/wp-content/uploads/2016/05/Installation-Guide-Cellweb-Installation-Guide-81-3.pdf>.



- The sub-base will be porous to enable gaseous exchange and water infiltration. A suitable material is washed angular stone with a diameter between 20 – 40mm with no fines. Aggregates or stones must have a near neutral PH.
- A second geotextile layer to be added
- Porous tarmac to be laid in the normal way
- The edge treatment within the areas hatched blue will comprise treated timber laid on end pegged every 500mm with a wooden peg on the outside. The top of the peg will be flush with the top of the board. A small amount of topsoil will grade down from the top of the board to the soil to prevent a trip hazard.

10.0 New soft landscaping:

Within the root protection areas of trees to be retained, the preparation of soil for planting and turfing will be carried out by hand. Cultivation will be kept to a minimum and new topsoil must not exceed 100mm in depth in the root protection areas, with no increase within 300mm of the stem. Top soil and other materials will be transported by wheelbarrow on running boards when working near trees. Enriched biochar to supplier's recommendations (typically 5% of soil volume) is advised to assist the establishment of new planting.

11.0 Arboricultural site supervision

An initial site meeting:

Before works have started, but after the tree surgery and tree protection measures are in place. At this meeting the site manager, contractor, arboricultural consultant should discuss methodology and the tree protection measures will be examined. A '*What you need to know about working near trees at Land at Rushmoor Close, Pinner HA5 2HF*' sheet will be issued which includes contact details.

After each site supervision, a short report will be sent to the contractor, client and local authority as a record of compliance within 5 working days.

Appendix 7

Tree related legislation and National Policy

1. Tree preservation orders

The Town and Country Planning (Tree Preservation) (England) Regulations 2012.

Tree Preservation Order (TPO) #238 affects the site. This means that no work to the trees can take place (other than listed in this report) without consent from the Local Planning Authority.

Applications typically take eight weeks to process. Works listed in this report do not require separate consent, provided that all the pre-commencement conditions have been discharged from a full planning approval relating to this report. The exception to this is works which are not required to facilitate planning consent. These are clearly identified within the tree surgery schedule and will need separate consent.

2. Conservation Area

The site lies in Eastcote Village Conservation Area. This means that no work can take place to trees (over 75mm at 1.5m) unless 6 weeks' notice of intent to carry out work is sent to the Local Planning Authority (LPA). The LPA can either raise no objection, or if they consider that the proposed works are detrimental to the visual amenity of the area, they will serve a Tree Preservation Order. Works listed in this report do not require separate consent, provided that all the pre-commencement conditions have been discharged from a full planning approval relating to this report.

3. Ecological considerations

The Wildlife and Countryside Act 1981, as amended, The Conservation of Habitats and Species Regulations 2010 and the Countryside and Rights of Way Act 2000, provide statutory protection to species of flora and fauna including birds, bats and other species that are associated with trees.

4. Occupiers Liability Act 1957 and 1984

The Occupiers Liability Act (1957 and 1984) places a duty of care to ensure that no reasonably foreseeable harm takes place due to tree defects. Therefore, this report includes recommendations within the tree tables for work required for safety reasons. 'Common sense risk management of tree (National Tree Safety Group 2012)' states that *'The owner of the land on which a tree stands, together with any party who has control over the tree's management, owes a duty of care at Common Law to all people who might be injured by the tree. The duty of care is to take reasonable care to avoid acts or omissions that cause a reasonably foreseeable risk of injury to persons or property'*.

5. Common law

This enables pruning back to the boundary line providing the work is reasonable. Other restrictions, such as tree preservation orders/conservation areas still apply.

The owner of a tree is not obliged to trim their trees or hedges to prevent them from crossing over a boundary. Whilst the tree owner is not obliged to cut back the branches, the person whose property is overhung has the right to cut back the branches to the boundary providing there are no planning or legal restrictions on the trees such as Tree Protection Orders or if they are located in a church yard, in which case suitable consent must be obtained. Such pruning works must be undertaken to a suitable standard and must not cause damage to the tree.

The resulting debris remains the property of the tree owner, but you must not cause any damage to their property when returning it back to them and you do not have the right to trespass on the tree owner's property in carrying out the works. In the interests of good neighbourly relations, we would encourage neighbours to discuss their intentions with each other before carrying out such works, providing the work is reasonable and that the trees are not subject to TPO or Conservation Area protection.

6. Veteran Trees

"The term veteran tree is one that is not capable of precise definition but it encompasses trees defined by three guiding principles: trees of interest biologically, aesthetically or culturally because of their age; trees in the ancient stage of their life; trees that are old relative to others of the same species."*

There are no veteran trees on, or immediately adjacent to the site.

*(English Nature (200) Veteran Trees – A Guide to Good Management. [Online]. [Accessed 21st March 2019]. Available from: <http://publications.naturalengland.org.uk/publication/75035>)

National Policy

National Planning Policy Framework December 2024

15. Conserving and enhancing the natural environment

187. Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;

193. When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists;**
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

Policy G7 Trees and woodlands

- A London's urban forest and woodlands should be protected and maintained, and new trees and woodlands should be planted in appropriate locations in order to increase the extent of London's urban forest – the area of London under the canopy of trees.
- B In their Development Plans, boroughs should:
- 1) protect 'veteran' trees and ancient woodland where these are not already part of a protected site¹³⁹
 - 2) identify opportunities for tree planting in strategic locations.
- C Development proposals should ensure that, wherever possible, existing trees of value are retained.¹⁴⁰ If planning permission is granted that necessitates the removal of trees there should be adequate replacement based on the existing value of the benefits of the trees removed, determined by, for example, i-tree or CAVAT or another appropriate valuation system. The planting of additional trees should generally be included in new developments – particularly large-canopied species which provide a wider range of benefits because of the larger surface area of their canopy.

¹³⁹ Forestry Commission/Natural England (2018): Ancient woodland and veteran trees; protecting them from development, <https://www.gov.uk/guidance/planning-applications-affecting-trees-and-woodland>

¹⁴⁰ Category A, B and lesser category trees where these are considered by the local planning authority to be of importance to amenity and biodiversity, as defined by BS 5837:2012

London Borough of Hillingdon Local Plan Part 2 (January 2020)

Policy DMHB 14: Trees and Landscaping

A) All developments will be expected to retain or enhance existing landscaping, trees, biodiversity or other natural features of merit.

B) Development proposals will be required to provide a landscape scheme that includes hard and soft landscaping appropriate to the character of the area, which supports and enhances biodiversity and amenity particularly in areas deficient in green infrastructure

C) Where space for ground level planting is limited, such as high rise buildings, the inclusion of living walls and roofs will be expected where feasible. D) Planning applications for proposals that would affect existing trees will be required to provide an accurate tree survey showing the location, height, spread and species of trees. Where the tree survey identifies trees of merit, tree root protection areas and an arboricultural method statement will be required to show how the trees will be protected. Where trees are to be removed, proposals for replanting of new trees on-site must be provided or include contributions to offsite provision.

Appendix 8

Statement of methodology and reference material

Statement of methodology

Review of supplied plans and information

Site visit made by Sharon Durdant-Hollamby on April 1st 2025.

Tree survey using Visual Tree Assessment carried out in accordance with BS 5837:2012 '*Trees in relation to design, demolition and construction – Recommendations*' (BS). All investigations were from ground level only and binoculars were used when necessary. All trees with a trunk diameter of 75mm or above were surveyed. Obvious hedges and shrub masses were identified where appropriate. Information collected is in accordance with recommendations in subsection 4.4.2.5 of BS and include species, height, diameter, branch spread, crown clearance, age class, physiological condition, structural condition and remaining contribution. Each tree was then allocated one of four categories (U, A, B or C). The survey was based on the supplied topographical drawing, with additional trees added where missing. Where this is the case, this has been stated in the tree survey sheets.

Received material

861-24_0502-Site Plan

861-24_Rushmoor Close-Planning Brochure

39470_APP_2025_7282025033109241210536

A1_20723 - Topographical Survey

Reviewed text

BSI. BS 3998:2010 *Tree work-Recommendations*.

BSI. BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*

R.G.Strouts and T.G.Winter 'Diagnosis of ill-health in trees' TSO 1994

London Borough Of Hillingdon website

C. Mattheck 'The body language of trees' 2015

Arboricultural Association Guidance Note 12 'The use of Cellular Confinement Systems Near Trees

Appendix 9

Caveats & Exclusions

Specific report caveats

1. At the time of writing this report, the protected tree status is correct. However, this can change. Therefore, I advise that a further check is made with London Borough Of Hillingdon before any works to trees take place.
2. No internal diagnostic equipment was used other than a sounding mallet and probe and all inspections were from ground level only, with the aid of binoculars where necessary.
3. The survey is concerned solely with arboricultural issues.
4. Any changes in ground level, or excavations near to tree roots not discussed within this report may change the stability and condition of the trees and a further examination would be required.
5. As trees are a dynamic living organism this report is only valid for a period of 12 months, in respect to their health and condition.
6. Only the trees listed in this report have been examined.
7. The measure of offsite trees has been estimated, except any crown within the site overhang which is measured. Where the crown of an onsite tree overhangs the boundary, the crown spread in this direction is also estimated.
8. The base and trunk of the offsite trees could not be examined, and therefore a full assessment of the trees condition could not be made.
9. Dense ivy and undergrowth prevent a full condition survey being carried out. The vegetation may be hiding structural defects.
10. The tree information is from the time of the survey. Some pests, diseases and fungi only appear seasonally, therefore it is possible not all issues that may affect the health of the trees could be observed.

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Appendix 10

Experience and qualifications of author



Sharon Durdant-Hollamby

FICFor FArbor A BSc (Hons) Tech Cert Arbor A



Profile

Sharon is an Expert Witness, chartered arboriculturist and Director of Sharon Hosegood Associates Ltd. Sharon had eleven years' experience as a local government tree and landscape officer before joining a contractor as a tree consultant in 2005. In 2007 she formed an environmental practice in Essex with the owner. As managing director, she built up the ecological and arboricultural consultancy to a team of 20. She is a past President of the Institute of Chartered Foresters (May 2021 – April 2023). She joined Essex Quality Review Panel in May 2023 as an arboricultural expert and has been awarded an Honorary Fellowship of Myerscough College. She is the host of Tree Lady Talks podcast and a regular speaker home and abroad.

Specialties: Trees in relation to development, including appeals and planning hearings

Tree root investigations, including TreeRadar

Tree hazard evaluation

Tree preservation orders

Trees and well-being with community engagement

Professional bodies: Immediate Past President of the Institute of Chartered Foresters
Fellow of the Institute of Chartered Foresters (ICF)
Fellow of the Arboricultural Association

Qualifications: Cardiff University Law School Bond Solon Civil Expert Certificate
Arboricultural Associations Technicians Certificate
BSc (Hons) Geography and Landscape Studies
Managing Safely IOSH (2017)

Awards: Top student award for the Technician's certificate in 2005

The Broomfield Hospital Woodland Management project she has managed between 2009 -2015 won the following awards:

- The Essex Biodiversity Awards (nomination)
- The Excellent Community Engagement Award (NHS Forest)
- Green Flag and Green Apple Award
- Highly commended for the Health Sector Journal Award 2013
- Honorary College Fellow (Services to Arboriculture and Forestry) University Centre, Myerscough
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Appendix 11

Glossary

Arboriculture	Formerly all aspects of the culture of trees, especially for forestry. Latterly, the art and science of cultivating and managing trees as groups and individuals, primarily for amenity and other non-forestry purpose.
Arboricultural method statement	Methodology for the implementation of any aspect of development that is within the root protection area, or has the potential to result in loss of or damage to a tree to be retained.
Arboriculturist	Person who has, through relevant education, training and experience in the field of trees in relation to construction.
Architecture	In a tree, a term describing the pattern of branching of the crown or root system.
Biochar	Biochar is charcoal used as a beneficial soil amendment enabling nutrient uptake and assisting the trees defense mechanism
Biodiversity	The variability among all living organisms of an ecological complex.
Biomechanical	Pertaining to the mechanical functions and properties of living organisms, such as trees.
Body language	In trees, the outward display of growth responses and/or deformation in response to mechanical stresses.
Branch	A limb extending from the main stem or parent branch of a tree.
Branch bark ridge	The raised arc of bark tissues that forms the acute angle between a branch and its parent stem
Branch collar	The swelling or roughened bark often found at the base of a branch which should be left intact if the branch is to be pruned off.
Canker	A lesion in which bark and cambium have been killed, sometimes exposing the wood and often showing a swollen appearance owing to the encircling growth of new tissues.
Canopy	The topmost layer of twigs and foliage in a tree.
Co-dominant	In trees, a similarity between two or more stems or branches with regard to their size and their position within the canopy.
Column	In the wood or phloem of a tree, an axially elongated zone of tissue that is distinguished from the surrounding tissue; e.g. Live versus dead or decayed versus non-decayed.
Construction exclusion zone	An area based on the root protection area from which access is prohibited for the duration of the project.
Crown	In arboriculture, the main foliage-bearing portion of a tree.
Crown lifting	The removal or shortening of the branches that form the lower part of the crown of a tree.
Crown reduction	Pruning in order to reduce the size of the crown of a tree.
Crown thinning	Pruning inside the crown of a tree in order to reduce its density.
Defect	In relation to tree hazards, any feature of a tree which detracts from the uniform distribution of mechanical stress, or which makes the tree mechanically unsuited to its environment.
Dieback	The death of part of a plant, usually starting from a distal point and often progressing proximally in stages.
Direct damage	Direct physical damage to a structure of surface from pressure exerted by the trunk or growing roots.

Ecosystem services	The benefits that a particular species or range of species bestow upon others (including humans) through ecological relationships. Such services can sometimes be estimated in a form that allows them to be included in financial accounting.
Epicormic	Pertaining to shoots or roots which are initiated on mature woody stems; shoots can form in this way from dormant buds or they can be adventitious.
Failure	In connection with tree hazards, a partial or total fracture within woody tissues or loss of cohesion between roots and soil.
Flush cut	A pruning cut close to the parent stem which removes part of the branch bark ridge.
Foreseeable	In hazard assessment, pertaining to failure and associated injury of damage which are predictable on the basis of evidence from a tree and its surroundings.
Fungi	Organisms of several evolutionary origins, most of which are multicellular and grow as branched filamentous cells within dead organic matter or living organisms.
Hazard	A thing, a process or a potential event that has the potential to cause harm.
Heartwood	The dead or predominantly dead central wood of various tree species whose outer living wood, sapwood, has a finite and pre-determined lifespan.
Independent in the landscape	Point at which a newly planted tree is no longer reliant on excessive or abnormal management intervention in order to grow and flourish with realistic prospects of achieving its full potential contribute to the landscape.
Level arm	A mechanical term denoting the length of the lever represented by a structure that is free to move at one end, such as a tree or an individual branch.
Landscape character	A distinct, recognisably and consistent pattern of elements in the landscape that make one landscape different from another, rather than better or worse.
Mulch	Material laid down over the rooting area of a tree or other plant to help conserve moisture, suppress weeds and encourage a beneficial microflora.
Mycorrhizal	Pertaining to an intimate symbiotic association between plant roots and specialised fungi.
PICUS	The Picus Sonic Tomograph is a non-invasive tool for assessing decay in trees. It works on the principle that sound waves passing through decay move more slowly than sound waves traversing solid wood. By sending sound waves from a number of points around a tree stem to a number of receiving points, the relative speed of the sound can be calculated and a two-dimensional image of the cross-section of the tree can be generated
Pollard	A term for a pollarded tree
Pollarding	The complete or partial removal of the crown of a young tree so as to encourage the development of numerous branches; also, further cutting to maintaining this growth pattern.
Probability	A statistical measure of the chance that a particular event (e.g. a specific failure of a tree or specific kind of harm to persons or property) might occur.
Resistograph	

	<p>The IML-RESI system is based on the measurement of drilling resistance.</p> <p>The IML-RESI operates in a similar manner to a normal drill. A drilling needle with a diameter of 1.5mm is inserted into the wood under constant drive. While drilling, the resistance is measured as a function of the drilling depth of the needle. The data is printed and stored electronically at a scale of 1:1 simultaneously.</p> <p>Although invasive the relatively small needle diameter causes very little damage, testing is normally only undertaken to confirm the remaining stem wall thickness in decaying trees.</p>
Retrenchment	Progressive reduction in the size of the crown of an old tree, by means of the dieback or breakage of twigs and small branches, accompanied by the enhanced development of the lower or inner parts of the crown.
Risks	The likelihood of the potential harm from a particular hazard becoming actual harm.
Root protection area	A layout tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority. BS 5837:2012 <i>'Trees in relation to design, demolition and construction – Recommendations'</i> .
Root flare	Thickened and expanded base of a tree stem at ground level from which buttress roots form.
Rootplate	The central part of the root system of a tree, consisting of the large-diameter main roots and a dense mass of smaller roots and soil.
Service	In construction, any above-or below-ground structure or apparatus for utility provision.
SULE	Safe useful life expectancy of a tree (Barrell)
Stag-headed	In a tree, a state of dieback in which dead branches protrude beyond the current living crown.
Stress	In plant physiology, a condition under which one or more physiological functions are not operating within their optimum range, for example owing to lack of water, inadequate nutrition or extremes of temperature.
Stub cut	A pruning cut which is made at some length distal to the branch bark ridge.
Target pruning	The pruning of a twig or branch so that tissues recognisably belonging to the parent stem or branch are retained and not damaged.
Targets	In tree hazard assessment, persons or property or other things of value which might be harmed by mechanical failure of the tree or by objects falling from it.
Tree Preservation Order	In Great Britain, an order made by a local authority, whereby the authority's consent is generally required for the cutting down, topping or lopping of specified trees.
Tree protection plan	Scale drawing, informed by descriptive text where necessary, based upon the finalized proposal, showing trees for retention and illustrating the tree and landscape protection measures.
Utility	An undertaker by statute that has a legal right to provide customer services (e.g. communication, electricity, gas and water).

Veteran tree	<i>'A tree that has passed beyond maturity and is old, or aged, in comparison with other trees of the same species'.</i> Ancient Tree Guide No. 4 (ATF, 2008).
Vigour	In tree assessment, an overall measure of the rate of shoot production, shoot extension or diameter growth.
Vitality	In tree assessment, an overall appraisal of physiological and biomechanical processes, in which high vitality equates with near-optimal function, in which high vitality equates with healthy function.
Visual Tree Assessment (VTA)	In addition to the literal meaning, a system expounded by Matlack and Breloer (1995) to aid the diagnosis of potential defects through visual signs and the application of mechanical criteria.
White-rot	Various kinds of wood decay in which lignin, usually together with cellulose and other wood constituents, is degraded.
Wound	Injury caused to a tree by a physical force.



Sharon Hosegood
ASSOCIATES

ARBORICULTURAL REPORT

SITE

Land at Rushmoor Close, Pinner HA5 2HF

CLIENT

Private Client

Sharon Durdant-Hollamby

FICFor FARborA BSc (Hons) Tech Cert (ArborA)

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