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Anchor House, Cross Street, Farcet

Arboricultural Implications Assessment

A housing development of 19 dwellings with access and parking

25th October 2022

Client: Formation Developments Ltd

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SUMMARY

This report, read in conjunction with drawing 4312.Farcet.Formation.AIP.Rev A, describes the arboricultural implications of the proposed development.

Whilst the scheme proposed will require the loss of most of the trees across the site, there is scope to retain some and the development will be an opportunity to provide new trees that can offer a long-term tree presence at the site. It weas noted at survey that many trees on site are of low quality, having been pruned historically.

The effects of the retained trees on the liveability in the dwellings is acceptable.

Specifically:

- Several trees on this site should be removed as a result of their health or condition regardless of any development.
- Some facilitation pruning may be required.
- Protection of the retained trees can be detailed in an Arboricultural Method Statement, secured through an appropriately-worded Condition attached to any Consent.

In the process of redevelopment, I also consider that there is an opportunity to replace trees.

Signed:

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1 INTRODUCTION

1.1 Instructions

1.1.1 This assessment was commissioned by the Client because trees are a material consideration and this report is required to support the Client's planning application.

1.1.2 The first instruction was to survey the trees on or adjoining the site in line with the recommendations of BS5837: 2012 and to provide a plan of arboricultural constraints in the first instance to inform design. This data has been used to inform the layout of the site. This survey took place on 19th April 2021.

1.1.3 The results of that survey are found at Appendix B.

1.1.4 The second instruction was to draw a plan showing the tree constraints overlaid to the planning drawing so that the implications could be assessed, and to write an Arboricultural Implications Assessment report for the proposed development.

1.2 Source documents

1.2.1 The drawings that have been used to inform this assessment are:

- Topographical survey: 8043-1
- Indicative proposed site plan: 2633/AL0201/P07

Note: This assessment is specific to the drawings listed above and cannot be generalised.

1.3 Assessment elements

1.3.1 This assessment provides the elements recommended by BS5837: 2012 'Trees in relation to design, demolition and construction':

- Consideration of any statutory protection affecting the site. (BS5837 section 5.2.3) (this document, section 2.4)
- Evidence of a tree survey conducted to BS5837:2012, including tree categorization (BS5837 section 4.4 and 4.5) (see Appendix A for explanatory notes on method, and Appendix B for the Survey Data Table)
- An impact assessment of the relationship between the trees and the proposed layout (see section 4; see also Appendix C for explanatory notes). Including:
  - A discussion of proposed tree losses (BS5837 section 5.2.3 and 5.4.3)
  - The potential impact of RPA incursions (BS5837 section 5.3.1 and 5.3.2)
  - Factors which may affect the reasonable enjoyment of the proposed structures such as shading, screening and privacy (BS5837 section 5.3.4)
  - Future growth and/or pressures for removal or pruning (BS5837 section 5.3.4)
  - Factors that may affect foundation design (BS5837 Annex A)
  - Foreseeable issues with the planned demolition/construction of the proposed layout such as working space and access. (BS5837 section 5.4.2)
- An Arboricultural Implications Plan showing the trees and their RPAs overlaid to the proposed layout, indicating trees for retention and removal. (BS5837 section 4.5 and 4.6) (provided with this report, see also Appendix D)

2 THE SITE

2.1 Setting

2.1.1 Almost all of the trees inspected appear to be growing on land under control of the client.

2.1.2 The site is an area of land to the rear of Anchor House.

2.1.3 The land is generally level.

2.2 Soil and Geology

2.2.1 With reference to Figure 4.3, Volume 1 'Tree Root Damage to Buildings' (P G Biddle), some soils can have shrinkable characteristics and this can affect the depth or type of foundations needed for both current and future planting.

2.2.2 The British Geological Survey of England and Wales identifies the bedrock geology at this location as Oxford Clay Formation - Mudstone with superficial deposits of Peat to the East of the site.

2.2.3 Clay soils are easily damaged through compaction. This information can be used to inform an Arboricultural Method Statement, which can be secured by Condition attached to a Consent

2.3 Statutory protection

2.3.1 This site does not lie within a Conservation Area.

2.3.2 All the trees surveyed are included in TREE PRESERVATION ORDER NUMBER 21/005 9 Cross Street Farcet Peterborough PE7 3DE. This TPO was originally Made with an Area designation but at the time of writing this report, the designation was being reviewed to identify individual and groups of trees to be included when the TPO is Confirmed.

2.3.3 Full Planning Consent would allow those works described in the supporting documentation or necessary to implement the consented development to go ahead without the need for any further notice or application to the Local Planning Authority.

2.3.4 Appropriate advice regarding the protection of wildlife and other ecological matters must be sought before any tree work proceeds on site.

3 SURVEY FINDINGS

3.1 Overview

3.1.1 The trees were inspected in line with the recommendations of BS5837: 2012 on 19th April 2021.

3.1.2 In general, many of the trees on this site are suppressed or in poor condition and are recommended for felling, with replacement planting to be sought.

3.2 Specific notes

3.2.1 The full table of survey data can be found in Appendix B.

3.2.2 Group C Tree of Heaven are young trees with signs of mechanical wounds to their stems. They are generally of poor form and I recommend they be felled and replaced, regardless of any development proposals.

3.2.3 Norway Maple 8205 is in poor condition, with a defect formed at the point where the main stem is in contact with the adjacent building. It should be felled and replaced.

3.2.4 Tree of Heaven 8206 is in poor condition with an asymmetric crown and a weak main stem union at 1.5m. It should be felled and replaced.

3.2.5 Ash 8210 is a multi-stemmed tree in poor condition that has early signs of decay with low foliage density and scattered pieces of minor-size deadwood throughout the crown. It should be felled and replaced.

4 ANALYSIS OF THE PROPOSAL

4.1 Vehicular Access

4.1.1 Highway access is to be gained via an access road off Main Street at or around the existing yard access for the Plant Hire site. This has no arboricultural implications.

4.2 Layout

4.2.1 The implications of the proposed development are as-per the following table:

Tree reference	Species	Grade	Implications
8190	Sycamore	B1	Must be removed from the garden of Plot 15 as it would be site-inappropriate.
8191	Sycamore	C1	Must be removed to accommodate Plots 17 and 18
Group A	Lawson's Cypress	C2	Must be removed to accommodate Plots 17 and 18
8192	Lawson's Cypress	C1/C2	Must be removed to accommodate Plot 18
8193	Norway Maple	C1/C2	Must be removed to accommodate Plot 19
8194	Norway Maple	C1/C2	Must be removed to accommodate Plot 18 and 19 driveways
NT1	Lawson's Cypress	C1	Must be removed to accommodate Plot 18 and 19 driveways
8196	Weeping Willow	C1	Must be removed to accommodate Plots 18 and 19
8197	Hawthorn	C1	Must be removed for the Plot 18 garden access.
8198	Flowering Cherry	C1	Must be removed for the Plot 18 garden access.
8200	Norway Maple	C1/C2	Remove to improve amenity of 9 Cross Street
8201	Lawson's Cypress	C1/C2	Remove to improve amenity of 9 Cross Street

Tree reference	Species	Grade	Implications
8202	Lawson's Cypress	C1/C2	Remove to improve amenity of 9 Cross Street
8203	Weeping Willow	C1	Must be removed for parking at 9 Cross Street
8204	Hawthorn	C1	Must be removed for Plot 1 driveway
8205	Norway Maple	C1/C2	Must be removed for Plot 3 parking and shared access roadway
8206	Tree of Heaven	C1/C2	Shared access roadway and Plot 3 parking lies partially within root protection area therefore the excavation must be minimised.
Group C	Tree of Heaven	C2	Must be removed to accommodate Plot 1
Group D	Ash	C2	Must be removed to improve amenity of Plots 4 -6
Group E	Ash	C2	Must be removed to improve amenity of Plot 10
Group F	Various	C2	Must be removed for the general layout at the east of the site.
Group G	Leyland Cypress	B2	Shown for removal at the eastern side of the site.

4.3 Engineering and Design

4.3.1 Subject to the soil type found on site and an engineer's appraisal, the trees (whether retained or removed) may influence foundation design.

4.4 Services

4.4.1 Services are not shown on the drawing but there is room to accommodate all services and soakaways without affecting any trees.

4.5 Shading, screening and privacy

4.5.1 Minor shade is shown at Plot 3. This is unlikely to affect the reasonable enjoyment of the property.

4.5.2 The situation to the rear of 9 Cross Street shows a significant improvement over the extant.

4.6 Future growth and pressure to prune

4.6.1 I would not expect any future growth in the retained trees.

5 ASSESSMENT CONCLUSIONS

5.1 Tree work

5.1.1 The proposed development will result in the loss of several trees; however, the quality and condition of most of the trees means their value is restricted to site and several are recommended for removal as a result of their health or condition. These trees are indicated on the Arboricultural Implications Plan (see Appendix D) by way of a red dashed line.

5.1.2 The following trees are recommended for removal as a result of their health or condition, regardless of any layout:

REF.	SPECIES
8192	Lawson's Cypress
8193	Norway Maple
8198	Flowering Cherry
8199	Apple
8202	Lawson's Cypress
NT1	Lawson's Cypress
8197	Hawthorn
Group A	Lawson's Cypress
Group B	Lawson's Cypress, Hawthorn

However, not all the trees have been shown for removal in this proposal.

5.1.3 In addition, the following trees are implicated for removal as a result of the proposed development:

REF.	SPECIES
8190	Sycamore
8191	Sycamore
8194	Norway Maple
8196	Weeping Willow
8198	Flowering Cherry
8200	Norway Maple
8201	Lawson's Cypress
8202	Lawson's Cypress
8203	Weeping Willow
8204	Hawthorn
8205	Norway Maple
Group C	Tree of Heaven
Group D	Ash
Group E	Ash
Group F	Various
Group G	Leyland Cypress

5.2 Tree Preservation Order

5.2.1 Although not all the trees shown for retention are entirely suitable for inclusion in a Tree Preservation Order, they could form the basis of the Confirmed Order.

5.3 Design

5.3.1 The current layout has been achieved through an informed design process. It appears possible to provide dwellings in the approximate locations without any significant conflict.

5.3.2 The layout indicated respects the best trees on the site which can be retained to maturity without the need for any arboricultural intervention

5.4 Construction

5.4.1 Some facilitation pruning may be required.

5.4.2 There is ample room for the receipt, storage and handling of materials and for the movement of plant and machinery. However, in order to avoid accidental damage, a suitable tree protection scheme must be implemented before development begins.

5.4.3 Full details of a tree protection methodology can be secured through an appropriately worded Condition attached to any Consent.

5.5 Protection

5.5.1 Barriers and ground protection will be required before any work commences on site.

5.5.2 The order in which the works are implemented will need to be carefully considered in order to provide the most successful tree protection scheme.

5.5.3 A high standard of site management will be essential to avoid damage to retained trees.

5.5.4 The retention of an Arboricultural Clerk of Works is recommended to enable works near trees to progress without damaging retained trees.

5.6 Replacement and Enhancement

5.6.1 The detail of the landscape scheme and how it will be maintained can be secured by Condition of any Consent.

Andrew Belson
Arboricultural Consultant

Appendices

Appendix A – Tree Survey Explanatory Notes

Identification

All significant trees within and adjoining the site were surveyed. Most of the significant individual trees within the site were tagged with numbered aluminium tags, attached to the tree with two nails at around head height. Inaccessible or neighbouring trees have been designated the prefix 'NT' and numbered. Groups of trees were identified and designated a letter. Reference to the trees' locations can be made using the plans appended to this report.

Limitations

The tree survey was carried out for the purpose of informing the planning process. Relevant structural defects and aspects of tree condition are noted in the tree survey table in Appendix B; however, a full hazard assessment has not been carried out.

As trees and shrubs are living organisms whose health and condition can change rapidly, conclusions and recommendations are only valid for one year. The health, condition and safety of trees should be checked regularly, preferably annually.

It may have been necessary to estimate some measurements when assessing trees on neighbouring land. This will not generally affect the conclusions of this report.

No invasive investigations were carried out to assess the internal condition of the trees. Should this be required, it will be highlighted in the report.

The soil was not examined and no soil samples were taken. Should soil analysis be indicated, this will be recommended in the report.

Assessment

The trees were assessed in accordance with British Standard 5837.

Appendix B – Tree Survey Data

Key to Survey

Height	Measured with a clinometer or estimated where not considered critical (m)	
Crown spread	At cardinal points (m)	
Remaining Contribution	Estimated number of years the tree may make a safe useful contribution	
Main Stem Diameter	Measured at 1.5 metres above ground or in accordance BS5837 Annex C and D	
Condition	Good:	No visible defects seen
	Reasonable:	Some defects seen but none that contribute significantly to the overall health and safety of the tree
	Poor:	Defects or health issues that contribute significantly to the overall health and safety of the tree
Age Class	Y	= Young (Less than 1/3 of normal expected life)
	SM	= Semi-mature (1/3 – 2/3 of normal expected life)
	M	= Mature
	OM	= Over-mature or in decline
	V	= Veteran
Root Protection Area (Radius)	Distance in metres from centre of tree to achieve a circular Root Protection Area	
Root Protection Area (Area)	Root Protection Area in square metres.	
Recommendations	Recommendations based on the findings of the survey. These are intended to help guide the site layout; appropriate tree retention; tree management and generally inform site design. These are irrespective of proposed site layout and DO NOT form part of the Arboricultural Implications Assessment.	

Condensed Notes from Table 1 BS5837

U	Trees in poor condition offering less than 10 years safe useful life due to irreversible decline; containing serious defects; infected with pathogens significant to health of other trees nearby; or dead.
A1	Trees of high quality and value offering at least 40 years' contribution; particularly good example of species
A2	Trees of high quality and value; offering at least 40 years' contribution; a group or woodland or particular visual importance
A3	Trees of high quality and value; offering at least 40 years' contribution with conservation, historical or other value
B1	Trees of moderate value; offering at least 20 years' contribution; slightly impaired condition but remediable
B2	Trees of moderate value; offering at least 20 years' contribution; distinct landscape feature as a group or woodland.
B3	Trees of moderate value; offering at least 20 years' contribution; trees with clearly identifiable conservation or other cultural benefits.
C1	Trees of low quality and value; at least 10 years' contribution; unremarkable trees of very limited merit
C2	Trees of low quality and value; at least 10 years' contribution; groups or woodlands without significant landscape value, trees of low or temporary landscape value
C3	Trees of low quality and value; at least 10 years' contribution; trees with limited conservation or other value

ref.	Species	Age Class	Ø m/s (mm)	Height (m)	Lower crown height (m)	Ultimate height (m)	Grade	Crown Spread N (m)	Crown Spread S (m)	Crown Spread E (m)	Crown Spread W (m)	RPA radius (m)	RPA (m^2)	Remaining Contribution	Condition	Comments	Recommendations made at time of survey, irrespective of any layout
8190	Sycamore	SM	450	12	1.5	18	B1	6	6	6	6	5.4	91.62	40+	Reasonable	Scattered minor dead wood throughout crown. Causing direct damage to garage base	Could be retained with space. Remove dead wood greater than 25mm in diameter.
8191	Sycamore	Y	320	10	1.5	18	C1	4.5	4.5	4.5	4.5	3.84	46.33	40+	Reasonable	Ivy on tree.	Could be retained with space.
Group A	Lawson Cypress	SM	250	8	1.5	8	C2	1.5	1.5	1.5	1.5	3	28.28	40+	Reasonable	Suppressed. Unlikely to be considered suitable for retention.	Fell and replace.
8192	Lawson Cypress	SM	180	8	1.5	8	C1/C2	1.5	1.5	1.5	1.5	2.16	14.66	10+	Poor	Suppressed. Unlikely to be considered suitable for retention. Ivy on tree.	Fell and replace.
8193	Norway Maple	SM	450	12	2	12	C1/C2	2.5	6	2.5	4	5.4	91.62	10+	Poor	Suppressed. Unlikely to be considered suitable for retention. Moderate Ivy prevents inspection. Dieback in crown.	Fell and replace.

ref.	Species	Age Class	Ø m/s (mm)	Height (m)	Lower crown height (m)	Ultimate height (m)	Grade	Crown Spread N (m)	Crown Spread S (m)	Crown Spread E (m)	Crown Spread W (m)	RPA radius (m)	RPA (m^2)	Remaining Contribution	Condition	Comments	Recommendations made at time of survey, irrespective of any layout
8194	Norway Maple	SM	310	13	2	13	C1/C2	2	5	4	4	3.72	43.48	10+	Poor	Low vigour. Dieback in crown.	Could be retained in the short-term.
8195	Silver Birch	M	350	13	1.5	13	C1/C2	4	5	2	6	4.2	55.42	10+	Reasonable	Low vigour. Dieback in crown.	Could be retained in the short-term.
NT1	Lawson Cypress	SM	150	5	0	5	C1/C2	1.5	1.5	1.5	1.5	1.8	10.18	20+	Good	Suppressed. Unlikely to be considered suitable for retention.	Fell and replace.
8196	Weeping Willow	M	850	15	1	15	C1	9	9	10	9	10.2	326.89	10+	Reasonable	Low vigour. Scattered minor dead wood throughout crown. Some moderately-sized pieces of deadwood in crown. Shear crack in lower Western scaffold. Decaying stubs from historic pruning	Could be retained in the short-term. Remove dead wood greater than 25mm in diameter. Crown lift to 3m where tree overhangs site.
8197	Hawthorn	Y	170	8	1.5	8	C1	2	2	2	2	2.04	13.08	40+	Good	No visible defects seen. Unlikely to be considered suitable for retention.	Fell and replace.

ref.	Species	Age Class	Ø m/s (mm)	Height (m)	Lower crown height (m)	Ultimate height (m)	Grade	Crown Spread N (m)	Crown Spread S (m)	Crown Spread E (m)	Crown Spread W (m)	RPA radius (m)	RPA (m^2)	Remaining Contribution	Condition	Comments	Recommendations made at time of survey, irrespective of any layout
8198	Flowering Cherry	M	250	5	2	5	C1	5	1.5	5	2	3	28.28	<10	Poor	Low vigour. Now in last third of safe useful life expectancy. Unlikely to be considered suitable for retention.	Fell and replace.
8199	Apple	M	250	5	2	5	C1	2.5	3.5	3.5	1.5	3	28.28	10+	Poor	Low vigour. Now in last third of safe useful life expectancy. Unlikely to be considered suitable for retention.	Fell and replace.
Group B	Lawson Cypress, Hawthorn	SM	250	7	1.5	7	C2	1.5	1.5	1.5	1.5	3	28.28	40+	Reasonable	Unlikely to be considered suitable for retention.	Fell and replace.
8200	Norway Maple	SM	310	13	2	13	C1/C2	5	4	5	5	3.72	43.48	10+	Poor	Low vigour. Dieback in crown.	Could be retained in the short-term.
8201	Lawson Cypress	SM	287	12	0.5	12	C1/C2	2.5	2.5	2.5	2.5	3.44	37.18	40+	Reasonable	Poor form.	Could be retained in the short-term.
8202	Lawson Cypress	SM	200	10	2	10	C1/C2	1.5	1.5	1.5	1.5	2.4	18.1	<10	Poor	Poor form. Stem divides above 1.5m. Included bark present in fork.	Fell and replace.

ref.	Species	Age Class	Ø m/s (mm)	Height (m)	Lower crown height (m)	Ultimate height (m)	Grade	Crown Spread N (m)	Crown Spread S (m)	Crown Spread E (m)	Crown Spread W (m)	RPA radius (m)	RPA (m^2)	Remaining Contribution	Condition	Comments	Recommendations made at time of survey, irrespective of any layout
8203	Weeping Willow	M	800	14	1	14	C1	6	6	6	6	9.6	289.57	10+	Reasonable	Low vigour. Scattered minor dead wood throughout crown. Some moderately-sized pieces of deadwood in crown. Branches encroaching upon building. Decaying stubs from historic pruning	Could be retained in the short-term. Remove dead wood greater than 25mm in diameter. Prune to clear building by 1m.
8204	Hawthorn	SM	235	5	1.5	5	C1	2	2	2	2	2.82	24.99	40+	Good	No visible defects seen. Unlikely to be considered suitable for retention. Historically pruned	Could be retained. No work required.
Group C	Tree of Heaven	Y	300	13	5	18	C2	4	4	3	5	3.6	40.72	10+	Poor	Unlikely to be considered suitable for retention. Various mechanical wounds to main stems. Generally poor shape and form	Fell and replace.

ref.	Species	Age Class	Ø m/s (mm)	Height (m)	Lower crown height (m)	Ultimate height (m)	Grade	Crown Spread N (m)	Crown Spread S (m)	Crown Spread E (m)	Crown Spread W (m)	RPA radius (m)	RPA (m^2)	Remaining Contribution	Condition	Comments	Recommendations made at time of survey, irrespective of any layout
8205	Norway Maple	SM	300	12	2	12	C1/C2	4	4	5	4	3.6	40.72	10+	Poor	Unlikely to be considered suitable for retention. Partially supported by adjacent building with defect on main stem at point if contact	Fell and replace.
8206	Tree of Heaven	SM	500	12	2	12	C1/C2	2	6	6	6	6	113.11	10+	Poor	Unlikely to be considered suitable for retention. Crown asymmetric to South and East. Weak main stem union at 1.5m	Fell and replace.
8207	Silver Birch	M	180	10	1.5	10	C1/C2	2	2	3	3	2.16	14.66	10+	Good	Suppressed. Scattered minor dead wood throughout crown.	Could be retained in the short-term.
8208	Silver Birch	M	300	12	2	12	B1/B2	3	4	5	5	3.6	40.72	20+	Good	No visible defects seen.	Could be retained in the short-term.
8209	Purple Leaf Plum	M	300	10	2	10	B1/B2	3.5	5	5	5.5	3.6	40.72	20+	Good	Now in last third of safe useful life expectancy. Moderate Ivy prevents inspection.	Could be retained in the short-term.

ref.	Species	Age Class	Ø m/s (mm)	Height (m)	Lower crown height (m)	Ultimate height (m)	Grade	Crown Spread N (m)	Crown Spread S (m)	Crown Spread E (m)	Crown Spread W (m)	RPA radius (m)	RPA (m^2)	Remaining Contribution	Condition	Comments	Recommendations made at time of survey, irrespective of any layout
Group D	Ash	Y	300	10	2	18	C2	4	4	4	4	3.6	40.72	40+	Reasonable	Multi-stemmed form.	Could be retained with space.
8210	Ash	M	500	10	2	10	C1	6	5	6	4	6	113.11	<10	Poor	Multi-stemmed form. Early signs of decay at old wounds. Scattered minor dead wood throughout crown. Some moderately-sized pieces of deadwood in crown. Moderate Ivy prevents inspection. Dieback in crown.	Fell and replace.
Group E	Ash	Y	300	10	2	18	C2	4	4	4	4	3.6	40.72	40+	Reasonable	Multi-stemmed form.	Could be retained with space.
Group F	Hawthorn, Elder, Bramble, Ivy	Y	300	6	0	6	C2	2.5	2.5	2.5	2.5	3.6	40.72	40+	Reasonable	Lapsed and fragmented boundary hedge offering some screening	Control Ivy and infill gaps
Group G	Leyland Cypress	SM	200	10	0	10	B2	2.5	2.5	2.5	2.5	2.4	18.1	40+	Good	Linear group on or near boundary. Good screen	Cut as a hedge.

Appendix C – Assessing Constraints

General

It is desirable to retain trees as they add maturity and structure to a site; provide shade and amenity value; screening or acoustic barrier.

In general, Grade 'A' and 'B' trees should be retained, especially if they offer a visual amenity to the wider community. It may be desirable to retain Grade 'C' trees where they can continue to offer a presence until they are replaced but they should not generally prevent an otherwise satisfactory layout from being achieved.

Root system

Construction can impose enormous strain on trees through damage to, or loss of root mass. The root system is the part of the tree most susceptible to damage during construction Any retained trees could be at risk of root damage through:

- Demolition and site clearance
- Excavation causing root severance
- Siting of services and excavation causing root severance
- Access for plant and vehicles which may cause compaction of the root zone leading to root death through asphyxiation
- Storage of materials or spillage of damaging substances such as fuel oil, petrol or lime, which can kill roots.
- The raising of soil levels which can kill roots through asphyxiation
- The lowering of soil levels which removes root mass, including many of the fine water collecting roots and beneficial humus layer

The symptoms that can arise from root damage as identified above can take several years to become evident.

The Arboricultural Implications Plan (see Appendix D) shows the Root Protection Area (RPA) as a magenta circle or polygon around each tree or group of trees. This is the area where if the trees are retained, ideally no excavation should take place; the soil level should not be raised or lowered; no materials should be stacked; there must be no contamination and no services should be routed. However, trees can be tolerant of some disturbance or root loss and recent advances in construction techniques can avoid causing significant damage to roots. This will depend on a number of factors including tree species and site conditions along with the type of construction methods available to the developer.

The Root Protection Area (RPA) required for each tree may affect the layout of road, footpath, housing services and other built structures. It may be possible to pave a proportion of the RPA.

Above Ground

Construction can threaten the aerial parts of the tree through physical damage by contact from various plant and delivery vehicles; and through the lighting of fires.

The height of the lower crown above ground is shown in the Tree Survey Table (Appendix B). Lifting (or raising) the crown to a set height above ground in order to allow access for plant and machinery or to erect fences for example would be an acceptable arboricultural practice. Crown spread may in itself be a constraint where it is greater than the RPA radius.

A development may affect the way wind passes the retained trees, by raising its speed or direction. This may leave weakened or newly exposed trees liable to wind throw.

Suitability and future growth

Some trees are not suitable for retention due to brittle wood, poisonous berries or leaves, prickles and thorns. Leaves falling from any of the retained trees may block gutters of nearby buildings. Fruit, blossom and leaves can become a potential slip hazard.

Whilst trees may be small at the time of survey, future growth may be considerable, both in height and radial crown spread. Very large trees worry some people because they perceive the trees to be imposing and dangerous. This is typically unfounded.

Shade

Building within the shade area can be acceptable where internal layout, fenestration or proposed use of buildings means they are not adversely affected by a lack of daylight received. Some shading may be welcomed in the summer when solar gain can make room temperatures uncomfortable.

The shade footprint that may be cast by the trees has been shown as a grey hatch on the Arboricultural Implications Plan (see Appendix D). The shade area is based on a solar inclination of 45 degrees in line with the median suggested by BS5837: 2012 that covers the main daylight hours. This simplifies the actual shade area that may affect the site but it is considered to be a good representation of the area in question.

It should also be noted that deciduous trees only cast shade for seven or eight months of the year, depending on species.

Engineering and Design

The species and height of trees (both retained or removed) may also affect the type and depth of foundations used.

The British Standard 5837: 2012 'Trees in Relation to Design, Demolition and Construction' gives more detailed guidance.

Appendix D – Arboricultural Implications Plan

1:200 Plan follows. To be printed in colour on A1.

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NOTES: Based on survey drawing 8043-1 and proposed site layout drawing 2633/AL0201/P07

The original of this drawing was produced in colour – a monochrome copy should not be relied upon

KEY

- GRADE A TREES
- GRADE B TREES
- GRADE C TREES
- GRADE U TREES
- ROOT PROTECTION AREA
- CANOPY OUTLINE - INDIVIDUAL TREE
- CANOPY OUTLINE - GROUPS
- CANOPY OUTLINE - FUTURE POTENTIAL
- TREES TO BE REMOVED
- INDICATIVE SHADE AREA

Rev	Description	Date
A	Revised layout	25.10.22
O	Original issue	24.1.22

Purpose of Issue
Planning

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Client
Formation Developments Ltd

Project
Anchor House, Farcet

Drawing Title
Arboricultural Implications Plan

Drawn	Checked	Reviewed	Date
AMB	--	--	25/10/2022
Job No.	Scale	Sheet Size	Revision
4312	1:200	A1	A

Drawing Number
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