Arboricultural assessment & method statement

Land East of Castle Avenue, Havant, Hampshire, PO9 2RY

Chris Allder MSc HNDArb FArborA MICFor RCArborA

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18295-AA3-CA

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Site location and report purpose

Site location

This aerial image is provided courtesy of Google. The yellow line indicates the approximate site boundary and is illustrative only.

Report purpose

This arboricultural assessment report provides sufficient information for the Local Planning Authority (LPA) to consider the effect of the proposed development on local character from a tree perspective. It is fully compliant with the BS 5837 advice relating to the planning application stage of the process and it meets national standard planning application validation requirements.

More specifically, the proposal is for a mixed residential development with associated access at land east of Castle Avenue, Havant, PO9 2RY.

This report includes:

- A **Tree protection plan** illustrating tree locations, categories, the location of the proposed development, and the proposed tree protection measures.
- An **Arboricultural assessment** (section 1 of the report) providing an analysis of the tree issues to assist the LPA in assessing the impact on local character.
- An **Arboricultural method statement** (section 2 of the report) describing how retained trees will be protected and managed during the development activity.
- **Appendices** (**Appendix 1** –Background administrative information, and data collection; **Appendix 2** – Tree schedule and explanatory notes; and, **Appendix 3** – QR Codes for SGNs).
- A companion document to supplement the main report titled ***Manual for managing trees on development sites*** **(Version 2.1)**, which provides explanations of how retained trees will be managed on site in the form of Site Guidance Notes (SGNs) covering the relevant issues.

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1: Arboricultural assessment

1.1 Relevant background information

Subsequent to the earlier scheme and following feedback from the LPA Tree Officer, a number of amendments have been made to the layout to accommodate concerns. Specifically:

- **T32** has been afforded a 15 m construction exclusion zone with the play area being relocated further to the east.
- The distance between **T21** and the closest plot has been increased.
- The layout has been altered to move plots away from **T6** so that there is no requirement for pruning.
- Plots have been moved away from **T5** to achieve larger gardens and a greater clearance from the canopy edge.

1.2 Table 1: Summary of trees affected and protected by the proposal

From my review of the constraints and the proposed layout, my assessment of the impact on trees, both during and after development, and those that need protection using special precautions, is summarised in Table 1:

	British Standard 5837 Category		
	A (High quality)	**B (Moderate quality)**	**C (Low quality)**
Remove	None	None	T1, T2, T3, T13, T14, G15 (part), T22, T23
Prune	None	T29	G15 (part)
Protect using special precautions See Notes below	T6	T5, T21, T29	G15 (part)
Post development considerations	None	T5, T29	None

T = Tree; G = Group

Note on types of protection: All retained trees will be protected during development by using fencing and ground protection, and only those requiring special precautions to limit the impact of encroachment are listed in Table 1.

Note on RPA adjustment: Special precautions are only necessary where encroachment into RPAs occurs. If the extent of RPAs can be adjusted within the guidance set out in BS 5837, this is explained in more detail in 1.2 below.

1.3 The impact of tree removals on local character

T1: This C category tree is visible from St George's Avenue where it forms a modest landscape feature. (Photo 1). It is located at the end of the avenue within a quiet cul-de-sac serving five private houses. The tree offers some public visual amenity along the avenue, but it is not prominent beyond the immediate landscape.

The tree is showing signs of dieback in the crown which is very likely to be early symptoms of the highly pathogenic ash dieback disease (*Hymenoscyphus fraxineus*) (Photos 2 and 3). This disease is now an epidemic within the south east of England and there is no known treatment. It causes the death of infected trees over a short period. As such, the anticipated life expectancy of this tree is no more than 3–5 years. I also note that it is located at the edge of the public highway within the footpath where any replacement may be impractical.

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In my opinion the loss of T1 is inevitable regardless of development, and this loss will affect the local landscape in the short-term only. The proposed development will offer the opportunity to secure the replacement of this tree elsewhere within the new landscape, through enforceable planning conditions.

T2 and T3: These C category trees are low-quality trees growing on the boundary with the neighbouring domestic garden. They are screened from public view by larger trees growing closer to the road and footpath and as such, offer negligible visual amenity to the general public. Neither tree is of such quality that it should pose a constraint to the development. Their removal could be easily mitigated through the considered planting of new better-quality trees as part of an approved landscaping scheme. New trees would be better placed to offer a long-term contribution to the local landscape.

T13, T14, G15 (part), T22, and T23: These C category trees are growing within an unmanaged, field-boundary hedgerow and are noticeable only by virtue of a lack of larger landscape features within the adjacent fields (Photo 4). They are not prominent as skyline features from outside the site and their loss will not have a long-term impact on local character. Management of the hedgerow by the owner would reasonably seek to significantly reduce the height and spread of these trees regardless of the proposal, and as such I do not consider them a sustainable long-term landscape feature.

Photo 1: Showing T1 with areas of dieback and sparse leaf coverage at crown extremities.

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Photo 2: Showing T1 crown dieback and leaf coverage.

Photo 3: Showing T1 crown dieback.

Photo 4: Showing the unmanaged field boundary hedgerow trees within G15 situated in the wider landscape.

1.4 The impact of tree pruning on local character

T29: Minor pruning of the branch extremities of this B category tree is required to achieve a 2–3 m clearance between the canopy edge and the proposed building line. This will allow construction access and will create a reasonable separation distance for future occupiers. These works will only require the pruning of small diameter branches at the branch ends and will have no detrimental effect on tree health and no impact on the overall aesthetic of the tree in the landscape.

Trees within G15: Minor pruning of the branch extremities of some trees within this group will be required to allow construction access. These works will have no detrimental effect on tree health and no impact on the overall aesthetic of this group in the landscape.

All tree works will accord with the recommendations in British Standard 3998:2010 *Tree Works*.

1.5 The impact of works in precautionary areas

Encroachment into the RPAs of B category T10 and T29: For these trees, there is minor encroachment into their notional circular RPAs. However, BS 5837 (5.3.1) does allow for encroachment, if any new structures and surfacing are low impact, and if it can be demonstrated that any lost area can be compensated for elsewhere. In this situation, the encroachment is on the outer extent of the RPAs and relatively small compared to the area that will be left undisturbed.

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Provision has been made to compensate for this elsewhere near the tree in the retained soft landscape areas. In my experience, healthy trees can tolerate such minor incursions into their RPAs without any significant adverse impacts on health, and my opinion is that will be the case in this situation. Additionally, it is also widely accepted that oak, as a species is robust at coping with disturbance. In summary, if the guidance set out in SGN7 *Excavating in RPAs* is observed, I believe that the proposed works can be implemented without any significant adverse impact on the trees, and therefore local character.

Encroachment into the RPAs of C category trees in G15 (part): For these trees, there is minor encroachment into their initial circular RPAs. However, they are low-quality trees, and the limited encroachment is unlikely to further compromise their retention. Furthermore, the encroachment is on the outer extent of the RPAs and relatively small compared to the area that will be left undisturbed. For this reason, my view is that these trees will be able to tolerate this level of disturbance and the proposal falls within the BS 5837 guidance. In summary, if the guidance set out in SGN7 *Excavating in RPAs* is observed, I believe that the proposed works can be implemented without any significant adverse impact on the trees, and therefore local character.

New hard surfacing in the RPAs of T5, T6, G15 (part), T21, and T29: There will be encroachment into the RPAs of these trees in the form of new no-dig surfacing. I have carefully reviewed the levels in these areas, and it would be feasible to install custom designed, no-dig specification surfacing without causing any significant disturbance to the RPA.

From our previous experience at installing such surfacing (www.barrelltreecare.co.uk/case-studies/SurfacingNearTrees.pdf), I am confident that this can be implemented without any long-term detrimental impact on tree health, with the detail to be agreed as part of a planning condition. This surfacing solution is within the advice set out in BS 5837 (8.6) and would be appropriate in this situation. In summary, if the guidance set out in SGN7 *Excavating in RPAs* and SGN9 *Installing/upgrading surfacing in RPAs* is observed, I believe that the proposed works can be implemented without any long-term detrimental impact on tree health, and therefore local character. All new surfacing must be installed before any construction access to prevent damage to the RPA from the construction activity.

1.6 Post development considerations

If trees are retained or planted too close to occupied buildings and garden amenity space, it is sometimes claimed that they can cause excessive shade or anxiety, which interferes with the normal use of the property. In extreme cases, this can result in pressure from future owners to fell or severely prune, thus reducing the long-term contribution of the trees to local character. However, in our experience, these problems are extremely rare and there is very little evidence that such pressures ever result in any significant harm to the wider setting. Indeed, there is an increasing body of evidence that the benefits from trees close to occupied areas significantly outweigh any disadvantages caused by shade or anxiety. Furthermore, important trees can be protected using tree preservation orders, which come with an overarching presumption to retain protected trees unless the normal use of the property is harmed to a significant extent. To our knowledge, there is no published evidence to support that trees are being lost to the detriment of local character for these reasons. I have considered these concerns in my analysis for this site with particular reference to **T5** and **T29**.

T5: This B category tree is located west of plots 3, 4, and 5. The orientation of the gardens will allow access to sunlight from the south and southeast during the greater part of the day and a dappled light from the west during the evening. The tree canopy is no closer than 6 m from the

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nearest house, affording a sustainable separation in the long-term. The gardens will retain more than 50% uncovered amenity space outside of the canopy.

I understand that **T5** is protected by a TPO, ensuring no unreasonable works are carried out (although the location of the tree is such that it's public value could be considered marginal). The tree is mature and further growth will be limited, however minor cyclical pruning works to maintain the tree at its current size would cause no significant harm to the tree nor alter its contribution to the landscape.

T29: This B category tree is located north of plot 53. The canopy does not overhang any part of the plot and due to its orientation, it will not cause any shading issues. None of the high occupancy rooms look directly onto it and it faces the flank wall. Minor pruning of the crown extremities is proposed to alleviate any proximity issues and to allow construction access.

1.7 New tree planting to enhance local character

New tree planting is feasible as a means of supplementing retained trees and enhancing local character, which could include heavy-standard or semi-mature specimens. The final selection of species, size, and location, would be matters to be agreed with the LPA through a planning condition. All new trees will be specified and planted in accordance with the recommendations in BS 8545 (2014) *Trees: from nursery to independence in the landscape –Recommendations*. My preliminary assessment is that there is sufficient space for new trees to be planted in locations where they will have the potential to reach a significant height without excessive inconvenience and be sustainable into the long-term, significantly improving the potential of the site to contribute to local character.

1.8 Summary of impact on local character

This proposal will result in the loss of a small number of trees that are all low category because of their poor condition or small size. All the significant boundary tree cover will remain intact and no high category trees will need to be removed. There is plenty of space for tree planting and a comprehensive new tree planting scheme using significant stock is feasible. The matter of adverse impacts on retained trees due to post-development pressures to fell or prune has been considered and I concluded that no further trees will be significantly affected. The construction activity and proposed changes may affect further trees if appropriate protective measures are not taken. However, if adequate precautions to protect the retained trees are specified and implemented through the arboricultural method statement included in this report, the development proposal will have no long-term detrimental impact on tree health or the contribution of trees to character in the wider setting.

For these reasons, I conclude that the proposed development would not cause an unacceptable or adverse impact on the long-term vitality of the retained trees, and therefore the character and appearance of the area. Furthermore, it fully aligns with the broad guidance set out in the National Planning Policy Framework.

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2: Arboricultural method statement

2.1 Site Guidance Notes (SGNs)

This section of the report identifies which trees on this site will be protected and managed, and by what means. This site-specific summary is supplemented by more detailed explanations and descriptions of specific operations set out in the accompanying *Manual for managing trees on development sites*. That document is a compilation of 12 individual SGNs addressing the following tree protection and management issues that regularly arise in the construction phase of development:

- SGN1 *Monitoring tree protection* (https://www.barrelltreecare.co.uk/resources/technical-guidance/sgn01?stage=Stage)
- SGN2 *Fencing protected trees* (https://www.barrelltreecare.co.uk/resources/technical-guidance/sgn02?stage=Stage)
- SGN3 *Ground protection* (https://www.barrelltreecare.co.uk/resources/technical-guidance/sgn03?stage=Stage)
- SGN4 *Pollution control* (https://www.barrelltreecare.co.uk/resources/technical-guidance/sgn04?stage=Stage)
- SGN5 *Site cranes & piling rigs* (https://www.barrelltreecare.co.uk/resources/technical-guidance/sgn05?stage=Stage)
- SGN6 *Height restrictions* (https://www.barrelltreecare.co.uk/resources/technical-guidance/sgn06?stage=Stage)
- SGN7 *Excavating in RPAs* (https://www.barrelltreecare.co.uk/resources/technical-guidance/sgn07?stage=Stage)
- SGN8 *Removing surfacing and structures in RPAs* (https://www.barrelltreecare.co.uk/resources/technical-guidance/sgn08?stage=Stage)
- SGN9 *Installing/upgrading surfacing in RPAs* (https://www.barrelltreecare.co.uk/resources/technical-guidance/sgn09?stage=Stage)
- SGN10 *Installing structures in RPAs* (https://www.barrelltreecare.co.uk/resources/technical-guidance/sgn10?stage=Stage)
- SGN11 *Installing services in RPAs* (https://www.barrelltreecare.co.uk/resources/technical-guidance/sgn11?stage=Stage)
- SGN12 *Landscaping in RPAs* (https://www.barrelltreecare.co.uk/resources/technical-guidance/sgn12?stage=Stage)

NOTE: Each individual SGN can be downloaded by using the links above and the QR Code links in Appendix 3.

2.2 Identification of areas to be protected

The tree protection plan shows the areas where protective measures are necessary. The fencing location is shown by the heavy black dashed lines, with the construction exclusion zone behind as the lighter black diagonal hatch. Precautionary areas are shown by a yellow fill and new temporary ground protection is shown by a blue fill.

2.3 Arboricultural supervision

An arboricultural consultant will be appointed to advise on the tree management for the site and to attend:

- a pre-commencement meeting before any work starts;

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- regular supervision visits to oversee the agreed tree protection, as agreed at the pre-commencement meeting; and
- further supervision visits, as necessary, to oversee any unexpected works that could affect trees.

The detail of how the arboricultural supervision will be carried out is explained in SGN1 *Monitoring tree protection* in the accompanying Manual.

2.4 Table 2: Summary of the site operations requiring arboricultural input

For this site, arboricultural input will be needed for the following operations:

Brief operation summary	Trees affected	Location of detailed explanations
Pre-commencement meeting: Meeting on site with all parties to agree protective measures, as described in SGN1. Will be carried out before any significant site works begin.	All trees	SGN1 *Monitoring tree protection*
Tree felling and pruning: Contractor will carry out agreed works as described in Appendix 2. Will be completed before any significant site works begin.	Fell: T1, T2, T3, T13, T14, G15 (part), T22, T23 Prune: G15 (part), T29	Appendix 2
Installing fencing and ground protection: Agreed tree protection measures will be installed and checked, as described in SGN2 and SGN3. Will be completed before any significant site works begin.	Fencing all trees Ground protection for T5, T6, G15 (part)	Tree protection plan, SGN2 *Fencing protected trees*, and SGN3 *Ground protection*
Pollution control near retained trees: Any pollution control measures identified during risk assessment will be installed as described in SGN4. Will be completed before any potential pollutants arrive on site.	All trees	SGN4 *Pollution control*
Regular arboricultural supervision: Provision will be made to carry out and record agreed arboricultural supervision, as described in SGN1.	All trees	SGN1 *Monitoring tree protection*
Excavating in RPAs: These operations will be carried out as described in SGN7.	T10, G15 (part), T29	SGN 7 *Excavating in RPAs*
Installing surfacing in RPAs: These operations will be carried out as described in the SGN9.	T5, T6, G15 (part), T21, T29	SGN9 *Installing/upgrading surfacing in RPAs*
Installing services in RPAs: These operations will be carried out with care, as described in SGN11.	All trees	SGN11 *Installing services in RPAs*
Landscaping in RPAs: These operations will be carried out with care, as described in SGN12.	All trees	SGN12 *Landscaping in RPAs*
Removing tree protection: Protection can only be removed when there is no risk of damage to retained trees, as described in SGN1.	All trees	SGN1 *Monitoring tree protection*

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2: Arboricultural method statement

The operations summarised in this table, and supplemented by the more detailed explanations set out in the SGNs and the rest of this document, form the arboricultural method statement for this site. The Site Manager will ensure that its details and any agreed amendments are known and understood by all site personnel. Copies of the agreed documents will be available on site. All personnel who could have an impact on trees will be briefed on the specific tree protection requirements as part of the site induction procedures. This requirement will be written into the site management documentation.

If unanticipated issues arise on site not referenced in the above explanations, further guidance on how to manage them can be found in the accompanying Manual.

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Appendix 1: Background administrative information and data collection

A1.1 Table 3: Background administrative information

	Background administrative information
Report date & reference	28th January 2022; 18295-AA3-CA
Tree protection plan reference	18295 - 3
Instructing client	Persimmon Homes South Coast
Instructions	Visit the site, assess the relevant trees, prepare a schedule of their details, describe the impact of the proposal on those trees and identify the tree protection issues in an arboricultural method statement with a tree protection plan, if appropriate.
Provided documents	Topographical survey, drawing number 'ENC-05.12.16-6X4', received by email on 30th August 2018, and layout drawing number 'Master Model.dwg', received by email on 18th January 2022.
Report author and credentials	Chris Allder is a Chartered Forester (www.charteredforesters.org) and a Fellow of the Arboricultural Association (www.trees.org.uk), and fully qualified to undertake the assessments in this report. Further details of his credentials can be found at https://www.barrelltreecare.co.uk/who-we-are/
Report limitations	• We have not checked if there is any statutory protection on the trees because this can delay the production of the report. If any tree works are proposed before a planning consent is given, then the possible existence of any statutory protection must be checked with the LPA. • This report does not consider ecological or archaeological issues, or any other matter beyond the assessment of the trees.
Technical references	In preparing the analysis in this report, we considered the guidance and advice in the following technical references: • Climate Change Act (2008) www.legislation.gov.uk/ukpga/2008/27/contents • Town and Country Planning Act 1990 www.legislation.gov.uk/ukpga/1990/8/contents • National Planning Policy Framework, published by the DCLG www.gov.uk/government/publications/national-planning-policy-framework--2 • BS 5837 (2012) *Trees in relation to design, demolition and construction – Recommendations*, BSI www.shop.bsigroup.com/ • BS 8545 (2014) *Trees: from nursery to independence in the landscape – Recommendations*, www.shop.bsigroup.com/ • BS 3998 (2010) *Tree work – Recommendations*, BSI www.shop.bsigroup.com/ • *Trees in the Townscape: A Guide for Decision Makers*, published by the Trees & Design Action Group http://www.tdag.org.uk/ • *Trees in Hard Landscapes: A Guide for Delivery*, published by the Trees & Design Action Group www.tdag.org.uk/ • National Joint Utilities Group (2007) Volume 4, Issue 2: *Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees* www.njug.org.uk/publications/

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Appendix 1: Background administrative information and data collection

A1.2 Table 4: Data collection

	Data collection
Date of site visit	30th August 2019
People present during site visit	Alex Needs
Weather & visibility	Clear, still, and dry with good visibility
Limitations to observations	• The inspection of the trees for the purposes of assessing their condition and work requirements was made on the basis that they will be annually inspected in the future to identify any changes in condition and review the original recommendations. For these reasons, the tree assessment advice only remains valid for one year from the date that the trees were last inspected. • All observations were of a preliminary nature and did not involve any climbing or detailed investigation beyond what was visible from accessible points at ground level. • Observations of trees outside the site boundaries are confined to what was visible from within the site. • All dimensions were estimated unless otherwise indicated.
Tree Preservation Orders (TPOs), Conservation Areas, and tree categorisation	TPOs cannot always be reliably interpreted from the documentation to identify which trees are protected, especially as time passes and site conditions change from when they were originally made. It is common for TPO plans to be inaccurate and schedules often become out of date as trees die or are removed. Frequently, trees deteriorate and, although they may be technically protected by the TPO, are in such poor condition or causing such unreasonable inconvenience that their suitability for retention becomes questionable. In a planning context, if poor trees are assessed as unsuitable for retention, then it would be inappropriate to show them as a material constraint in development planning. For these reasons, although TPOs do need to be considered, they do not form the primary basis for tree categorisation. Poor quality trees assessed as not worthy of retention will be shown as such, irrespective of whether they are protected or not. Similarly, good quality trees that are not protected will still be shown as material constraints. The same rationale will be applied to Conservation Areas.
Tree location and numbering	Each tree, hedge, and group, was inspected, and the numbering scheme is indicated on the tree protection plan. Where important trees were found on site that were not included on the provided plan, their approximate positions and canopy extents are indicated on the plan.
Recording of tree data	For each identified tree, hedge, and group, the information collected was recorded on the tree schedule in Appendix 2 and the tree protection plan.
Compliance of data collection with BS 5837	The data collection is fully compliant with the advice in subsection 4.4.2 of BS 5837. When collecting this information, specific consideration was given to any low branches that may influence future use, age class, physiological condition, structural condition, and remaining contribution. Where appropriate, crown spreads were also noted where they differed from those shown on the provided land survey.
Calculation of RPAs	Following the recommendations in Table D1 of BS 5837, the diameter of each tree was rounded up to the next 2.5cm increment, with the radius of a nominal circle and the resultant RPA taken directly from that table. This information is listed for each tree in the tree schedule in Appendix 2.

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Appendix 2: Tree schedule and explanatory notes

NOTE: Colour annotation is A & B trees with green background; C & U trees with blue background; trees to be removed in red text.

Tree No	Species	Height (m)	Diameter (cm) @ 1.5m	Maturity	Low Branches	Category	Notes	Tree Works	RPA radius (m)	RPA area (m2)
All retained trees & hedges								Carry out safety check and lift over site to 3-4 m as necessary.		
T1	Ash	18	100	Mature	Yes	C	Unable to access base, dieback in upper canopy	Fell for development	12.0	452
T2	Sycamore	17	50	Maturing	-	C	Unable to access base, ivy clad stems	Fell for development	6.0	113
T3	Elder	5	20	Maturing	-	C	Unable to access base	Fell for development	2.4	18
T4	Holly	5	20	Maturing	-	C	Unable to access base	-	2.4	18
T5	Oak	19	100	Mature	-	B	Offsite, ivy clad trunk and scaffold branches, unable to access base	-	12.0	452
T6	Oak	15	82.5*	Mature	-	A	-	-	9.9	308
T7	Beech	12	37.5	Maturing	-	B	Offsite	-	4.5	64
T8	Oak	15	40	Maturing	-	C	Offsite	-	4.8	72
T9	Birch	10	30	Maturing	-	C	Offsite, ivy clad trunk	-	3.6	41
T10	Oak	10	40	Maturing	-	B	Offsite	-	4.8	72
T11	Oak	7	30	Maturing	-	C	Offsite	-	3.6	41
T12	Elder	5	25	Maturing	-	C	Unable to access base	-	3.0	28
T13	Elder	5	25	Maturing	-	C	Unable to access base	Fell for development	3.0	28
T14	Hawthorn	6	30	Maturing	-	C	Unable to access base	Fell for development	3.6	41

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Appendix 2: Tree schedule and explanatory notes

Tree No	Species	Height (m)	Diameter (cm) @ 1.5m	Maturity	Low Branches	Category	Notes	Tree Works	RPA radius (m)	RPA area (m2)
G15	Hawthorn	8	40	Mature	-	C	Outgrown boundary hedgerow tree group distinct as a linear landscape feature	Fell for development (part) and prune back to achieve a 2–3 m clearance between the canopy edge and the proposed building line.	4.8	72
T16	Cherry	8	30	Maturing	-	C	Offsite with one sided crown	-	3.6	41
T17	Field maple	10	45	Maturing	-	C	Offsite with one sided crown	-	5.4	92
T18	Field maple	10	30	Maturing	-	C	Offsite, horse prevented closer inspection	-	3.6	41
G19	Leyland cypress	17	40	Maturing	-	C	Outgrown boundary hedge	-	4.8	72
T20	Hawthorn	5	20	Maturing	-	C	-	-	2.4	18
T21	Oak	14	80*	Maturing	-	B	Good potential	-	9.6	290
T22	Sycamore	7	20	Maturing	-	C	-	Fell for development	2.4	18
T23	Hawthorn	7	30	Maturing	-	C	Twin stemmed	Fell for development	3.6	41
H24	Cypress	3	15	Maturing	-	C	-	-	1.8	10
G25	Elder, plum	4	20	Maturing	-	C	-	-	2.4	18
T26	Cypress	6	20	Maturing	-	C	Offsite	-	2.4	18
G27	Hawthorn, cypress	4	20	Maturing	-	C	Boundary group	-	2.4	18
T28	Cercis	6	30	Maturing	-	B	Offsite	-	3.6	41

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Appendix 2: Tree schedule and explanatory notes

Tree No	Species	Height (m)	Diameter (cm) @ 1.5m	Maturity	Low Branches	Category	Notes	Tree Works	RPA radius (m)	RPA area (m2)
T29	Oak	16	100*	Mature	-	B	Beefsteak fungus growing from buttress roots, mechanical damage to buttress roots	Prune branch ends to achieve a 2–3 m clearance between the canopy edge and the proposed building line.	12.0	452
T30	Hawthorn	5	30	Maturing	-	C	-	-	3.6	41
T31	Weeping willow	17	60	Over-mature	-	C	Partially collapsed into pond	-	7.2	163
T32	Oak	17	100	Mature	-	B	Flared buttress roots with cavities, Ganoderma sp. fruiting body on buttress	-	12.0	452
G33	Mixed shrubs	6	15	Maturing	-	C	-	-	1.8	10
T34	Hawthorn	6	25	Maturing	-	C	-	-	3.0	28
G35	Hawthorn, plum	9	30	Maturing	-	C	Offsite, unable to access base	-	3.6	41
T36	Sycamore	9	22.5	Maturing	-	C	Offsite	-	2.7	23
T37	Sycamore	8	25	Maturing	-	C	Offsite, multiple stems	-	3.0	28
T38	Purple plum	8	25	Maturing	-	C	Offsite twin stems	-	3.0	28
T39	Sycamore	12	40	Maturing	-	B	Offsite	-	4.8	72
G40	Hawthorn, laurel	6	30	Maturing	-	C	Offsite boundary group, unable to access base	-	3.6	41
H41	Hawthorn	1.5	12.5	Maturing	-	C	-	-	1.5	7

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Appendix 2: Tree schedule and explanatory notes

Explanatory Notes

- **Abbreviations:**
  G: Group
  T: Tree
  H: Hedge

- **Botanical tree names:**

Ash	: *Fraxinus excelsior*
Beech	: *Fagus sylvatica*
Birch	: *Betula* sp
Cercis	: *Cercis* sp
Cherry	: *Prunus* sp
Cypress	: *Cupressus* sp
Elder	: *Sambucus nigra*
Field maple	: *Acer campestre*
Hawthorn	: *Crataegus monogyna*
Holly	: *Ilex aquifolium*
Laurel	: *Prunus laurocerasus*
Leyland cypress	: *X Cuprocyparis leylandii*
Oak	: *Quercus robur*
Plum	: *Prunus* sp
Sycamore	: *Acer pseudoplatanus*
Weeping willow	: *Salix* x *chrysocoma*

- **BS 5837 (2012) compliance:** All data has been collected based on the recommendations set out in subsection 4.4 of BS 5837.
- **Tree inspections and site limitations:** Each tree was subjected to a quick visual check level of inspection. Where there is restricted access to the base of a tree, its attributes are assessed from the nearest point of access. Climbing inspections are not carried out during this level of inspection and, if heavy ivy is present, tree condition is assessed from what can be seen from the ground. A separate note is recorded if further investigation may be required to clarify its status.
- **Crown spreads:** Crown spread dimensions are not listed in the tree schedule because they are illustrated on the land survey base to all the plans in this document. Where crown spreads of significant trees on site are found to deviate from those shown on the provided land survey, we have noted it in the text of the report and annotated it on our plans.
- **Dimensions:** All dimensions are estimated unless otherwise advised.
- **Species:** Species identification is based on visual observations. Where there is some doubt over tree identity, sp is noted after the genus name to indicate that the species cannot be reliably identified at the time of the survey. Where there is more than one species in a group, only the most frequent are noted and not all the species present may be listed.
- **Height:** Height is estimated to provide a broad indication of the size of the tree.
- **Trunk diameter:** Trunk diameter is estimated or measured and recorded in 2.5cm increments as advised in BS 5837 Table D1. It is measured with a diameter tape unless access is restricted, direct measurement is not possible because of ivy on the trunk, or the tree is assessed as low quality. The point of measurement and the adjustments for stem variations are as advised in Figure C1 of BS 5837.
- **Maturity:** In planning context, maturity provides a simplistic indication of a tree's ability to cope with change and its potential for further growth. For the purposes of this report, young indicates a potential to significantly increase in size and a high ability to cope with change, maturing indicates some potential to increase in size and a medium ability to cope with change, and mature indicates little potential to increase in size and limited ability to cope with change.
- **Low branches:** Any low branches that would not be feasible for removal during normal management and should be considered as a design constraint are noted here and explained in the notes.

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Appendix 2: Tree schedule and explanatory notes

- **Category:** Our assessment automatically considered tree physiological/structural condition (BS 5837, 4.4.2.5h), and so these are not listed separately in the schedule. Additionally, the category accounts for the remaining contribution (BS 5837, 4.4.2.5i) as greater than 40 years for A trees, greater than 20 years for B trees, at least 10 years for C trees and less than 10 years for U trees, so this is also not listed separately in the schedule. Category A, B and C trees are automatically listed as sub-category 1 unless otherwise stated.
- **Notes:** Only relevant features relating to physiological or structural condition and low branches that may help clarify the categorisation are recorded. If there are no notes, then the presumption should be that no relevant features were observed.
- **Future tree safety inspections:** Due to the time that may elapse between the original survey and the start of development, all trees should be re-inspected as part of the standard risk management process before any works start on site. Our assessment of the trees was carried out on the basis that a re-inspection would be carried out within a year of the assessment visit and our advice on tree condition must be reviewed annually from the date of that visit.

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Appendix 3: QR Codes for SGNs (Scan with reader to download)

SGN1 *Monitoring tree protection*	SGN2 *Fencing protected trees*	SGN3 *Ground protection*
SGN4 *Pollution control*	SGN5 *Site cranes & piling rigs*	SGN6 *Height restrictions*
SGN7 *Excavating in RPAs*	SGN8 *Removing surfacing and structures in RPAs*	SGN9 *Installing/upgrading surfacing in RPAs*
SGN10 *Installing structures in RPAs*	SGN11 *Installing services in RPAs*	SGN12 *Landscaping in RPAs*

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TREE CONSULTANCY

Field House Fordingbridge Business Park Fordingbridge Hampshire SP6 1BD
☎ 01425 651470 info@barrelltreecare.co.uk www.barrelltreecare.co.uk