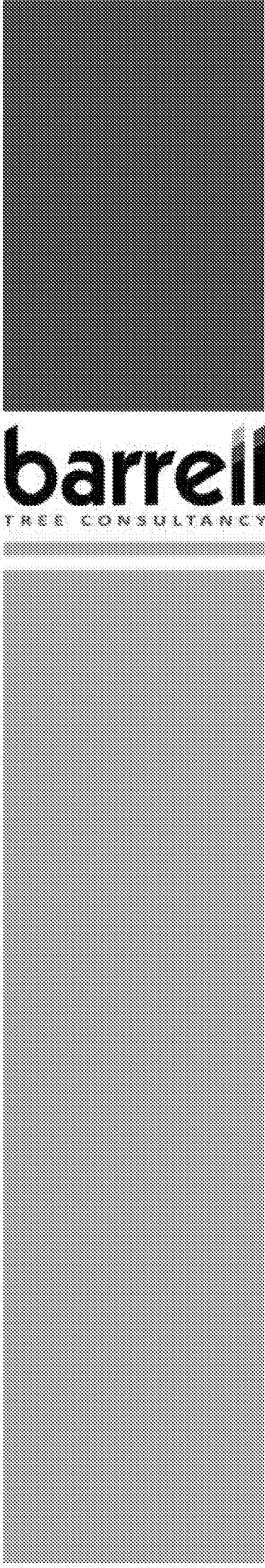


Arboricultural Assessment & Method Statement
Cinders Lane, Yapton, Arundel

Chris Allder **MSc HNDArb FArborA MICFor**

19 December 2016
16371-AA2-CA



barrell
TREE CONSULTANCY

Site location and approximate boundaries



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

Report purpose, validation statement and tree protection plan

Report purpose

This is a BS 5837 compliant arboricultural assessment report providing sufficient information for the Local Planning Authority ("LPA") to consider the effect of the proposed development on local character from a tree perspective. It includes an analysis of how trees will be affected and a heads of terms arboricultural method statement briefly describing how retained trees will be protected and managed during the development activity. It is fully in line with the BS 5837 advice relating to the planning application stage of the process highlighted in Table B1 reproduced below:

Table B.1 Delivery of tree-related information into the planning system

Stage of process	Minimum detail	Additional information
Pre-application	Tree survey	Tree retention/removal plan (draft)
Planning application	Tree survey (in the absence of pre-application discussions)	Existing and proposed finished levels
	Tree retention/removal plan (finalized)	Tree protection plan
	Retained trees and RPAs shown on proposed layout	Arboricultural method statement - heads of terms
	Strategic hard and soft landscape design, including species and location of new tree planting	Details for all special engineering within the RPA and other relevant construction details
	Arboricultural impact assessment	
Reserved matters/ planning conditions	Alignment of utility apparatus (including drainage), where outside the RPA or where installed using trenchless method	Arboricultural site monitoring schedule
	Dimensioned tree protection plan	Tree and landscape management plan
	Arboricultural method statement – detailed	Post-construction remedial works
	Schedule of works to retained trees, e.g. access facilitation pruning	Landscape maintenance schedule
	Detailed hard and soft landscape design	

Validation statement

For LPA validation purposes, this report includes:

- a **BS 5837 compliant tree survey**, including a tree protection plan showing the location of the existing trees, their categorisation, the location of the new structures and hard surfacing, the trees to be removed, the new trees to be planted and the tree protection measures;
- an **arboricultural assessment** in Section 1, which describes how the development proposal will affect local character from a tree perspective;
- an **arboricultural method statement** (heads of terms only as recommended in BS 5837) in Section 2, which summarises the tree protection measures; and
- two **appendices** in Section 3 setting out the background administrative information and a schedule of tree information.

Report purpose, validation statement and tree protection plan

The tree protection plan

More specifically, the tree protection plan is based on the provided information and it should only be used for dealing with the tree issues. It shows:

- the existing trees numbered, with high/moderate categories (A & B) highlighted in green triangles and low/unsuitable categories (C & U) highlighted in blue rectangles;
- the circular interpretation of root protection areas ("RPA") of category A, B and C trees (grey circles);
- the trees to be removed indicated by a red number and crown outline;
- the location of the construction exclusion zone ("CEZ"), which is the area of restricted access, to be protected by temporary barriers (fencing and/or ground protection); and
- the location of the new tree planting.

Summary

1. The development proposal

The outline development proposal is for the demolition of an existing bungalow and several glasshouses to be replaced with 51 new dwellings with associated open space, access and parking on land off Cinders Lane, Yapton, Arundel.

2. Background administrative information

Our instructions, how we prepared this report and other relevant background information is explained in Appendix 1. All the trees that could be affected were inspected and that information is listed in Appendix 2.

3. Table 1: Summary of category A, B and C trees to be removed, pruned or protected using special precautions

	British Standard 5837 Category		
	A (High quality)	B (Moderate quality)	C (Low quality)
Remove		28	8, 10, 13, 14, 15, 18, 19, 20, 21, 22, 24, 25, 26, 27, G29, G30, G31, 32, G33, G34, 35, G36, G38
Prune			H1, H2, G3, G4, G5, H7, H9
Protect using special precautions		16, 17	

G = Group

Note: Category U trees T11, T12 and T23 are in such poor condition they would be removed irrespective of development and they are not included in this summary.

4. Table 2: Summary of the impact on local character of tree removal and pruning, and proposed mitigation

	Tree number(s)	Impact on local character	Mitigation
Remove	8, 10, 13, 14, 15, 18, 19, 20, 21, 22, 24, 25, 26, 27, 28, G29, G30, G31, 32, G33, G34, 35, G36, G38	Limited impact	None needed, but new structural tree planting is proposed
Prune	H1, H2, G3, G4, G5, H7, H9	No impact	None needed

5. Protection of retained trees

As recommended in BS 5837 (Table B1), a heads of terms arboricultural method statement is included in Section 2 of this report. The approximate locations of the protective measures are shown on the tree protection plan.

6. Enhancement through new tree planting

In order to increase the contribution of trees to local character, new tree planting is proposed to include seventeen new trees to be planted around the site in sustainable locations. The new trees would have the potential to reach a significant height without excessive inconvenience to adjacent occupants, representing an overall enhancement of tree cover in the area.

7. Overall assessment of how the development proposal will affect local character from a tree perspective

The majority of trees to be lost because of this proposal are low category because of their poor condition or small size. One moderate category tree will also be lost but it is well within the site and its loss will have no significant impact on the present character of the area. The development

Summary

proposal will have no significant impact on the contribution of trees to character in the wider setting. Indeed, the new sustainable planting proposals will increase the potential of the site to contribute to local character well beyond the short term.

Section 1

Arboricultural assessment

This arboricultural assessment has taken account of all the recommendations set out in 5.4 of BS 5837 (reproduced courtesy of BSI below).

5.4 Arboricultural impact assessment

5.4.1 The project arboriculturist should use the information detailed in **5.2** and **5.3** to prepare an arboricultural impact assessment that evaluates the direct and indirect effects of the proposed design and where necessary recommends mitigation.

5.4.2 The assessment should take account of the effects of any tree loss required to implement the design, and any potentially damaging activities proposed in the vicinity of retained trees. Such activities might include the removal of existing structures and hard surfacing, the installation of new hard surfacing, the installation of services, and the location and dimensions of all proposed excavations or changes in ground level, including any that might arise from the implementation of the recommended mitigation measures. In addition to the impact of the permanent works, account should be taken of the buildability of the scheme in terms of access, adequate working space and provision for the storage of materials, including topsoil.

NOTE Scaled cross-sections and other drawings might be required to demonstrate the feasibility of the proposals (see Annex B).

5.4.3 As well as an evaluation of the extent of the impact on existing trees, the arboricultural impact assessment should include:

- a) the tree survey (see **4.4**);
- b) trees selected for retention, clearly identified (e.g. by number) and marked on a plan with a continuous outline;
- c) trees to be removed, also clearly identified (e.g. by number) and marked on a plan with a dashed outline or similar;
- d) trees to be pruned, including any access facilitation pruning, also clearly identified and labelled or listed as appropriate;
- e) areas designated for structural landscaping that need to be protected from construction operations in order to prevent the soil structure being damaged;
- f) evaluation of impact of proposed tree losses;
- g) evaluation of tree constraints (see **5.2**) and draft tree protection plan (see **5.5**);
- h) issues to be addressed by an arboricultural method statement (see **6.1**), where necessary in conjunction with input from other specialists.

Section 1: Arboricultural assessment

8. Relevant background information that has influenced this assessment – strategic and policy considerations

The Climate Change Act (2008) sets out a statutory strategic need to adapt to climate change at a national and local level, which is reiterated through the emphasis on sustainability in the National Planning Policy Framework. It is now widely accepted that trees offer significant climate adaptation benefits to the built environment where people live and work. These benefits include, amongst others, the buffering of temperature extremes and the buffering of rainwater runoff, which can significantly reduce the adverse impacts of climate change.

Additionally, there is an increasing body of research providing reliable evidence that trees impart other significant health-related benefits to the people that live and work near them. These benefits include, amongst others, the potential to improve psychological wellbeing by reducing stress and anxiety through the relaxing nature of their presence. It seems that access to greenspace and trees makes people happier and encourages them to take more exercise, which has a direct and positive impact on physical health and wellbeing. On a subtler level, the ecological enhancement that can be achieved through appropriate tree management makes a positive contribution to environmental sustainability.

These concepts are explored and set into a built-environment context in the recent Trees and Design Action Group's publications *Trees in the Townscape: A Guide for Decision Makers* and *Trees in Hard Landscapes: A Guide for Delivery*. Furthermore, specific advice on planting new trees is provided in British Standard 8545 (2014) *Trees: from nursery to independence in the landscape – Recommendations*. We have given significant weight to the guidance set out in these documents, which is reflected in the analyses in this report.

In line with these references, we agree with and support the general principle that more and bigger trees will deliver more benefits from their presence. Although this must be applied with balance and intelligence, it nonetheless remains an important guiding principle in the planning process and it has been an influential consideration in our analysis on this site.

9. Table 3: The impact of tree removal on local character

Tree number(s)	Impact of tree removal
8, 10, 13, 14, 15, 18, 19, 20, 21, 22, 24, 25, 26, 27, 28, G29, G30, G31, 32, G33, G34, 35, G36, G38	Limited impact: These trees are visible in glimpses from outside the site but are not individually prominent. Their loss will be noticeable in the immediate vicinity in the short term, but there will be no significant impact on local character in the wider setting in the medium to long terms.

Note: Trees categorised as U are in such poor condition that they have been assessed as needing removal for management reasons irrespective of any development proposals. Removal of any category U trees will be a management decision and their loss will not be caused by this proposal and it should not be considered as a direct impact.

10. The impact of tree pruning on local character

Although several trees and hedges will need pruning, these works fall within the bounds of normal management and is justified irrespective of any development. Such pruning would have no significant adverse impact on tree health and, because the profile from public viewpoints would remain unchanged, it will have no significant impact on local character.

Section 1: Arboricultural assessment

11. New tree planting to mitigate tree removals

To mitigate the loss of trees, new tree planting including seventeen new trees are to be planted around the site in sustainable locations. The final selection of species, size and location are flexible and open to amendment if necessary. The new trees would 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.

12. Summary of the impact on local character

The majority of trees to be lost because of this proposal are low category because of their poor condition or small size. One moderate category tree will also be lost but it is well within the site and its loss will have no significant impact on the present character of the area. There is plenty of space for tree planting and a new tree planting scheme using significant stock is included as part of the proposal. The size of these new trees and their future growth will significantly enhance the contribution of this site to local character and more than compensate for the loss of existing trees. The construction activity 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 significant impact on the contribution of trees to character in the wider setting. Indeed, the new sustainable planting proposals will increase the potential of the site to contribute to local character well beyond the short term.

Section 2

Arboricultural method statement (heads of terms)

As recommended in Table B1 of BS 5837 (reproduced courtesy of BSI below), this arboricultural method statement is confined to a summary of the heads of terms, with the detail to be provided at the reserved matters stage in response to a planning condition.

Table B.1 Delivery of tree-related information into the planning system

Stage of process	Minimum detail	Additional information
Pre-application	Tree survey	Tree retention/removal plan (draft)
Planning application	Tree survey (in the absence of pre-application discussions)	Existing and proposed finished levels
	Tree retention/removal plan (finalized)	Tree protection plan
	Retained trees and RPAs shown on proposed layout	Arboricultural method statement - heads of terms
	Strategic hard and soft landscape design, including species and location of new tree planting	Details for all special engineering within the RPA and other relevant construction details
	Arboricultural impact assessment	
Reserved matters/ planning conditions	Alignment of utility apparatus (including drainage), where outside the RPA or where installed using trenchless method	Arboricultural site monitoring schedule
	Dimensioned tree protection plan	Tree and landscape management plan
	Arboricultural method statement – detailed	Post-construction remedial works
	Schedule of works to retained trees, e.g. access facilitation pruning	Landscape maintenance schedule
	Detailed hard and soft landscape design	

Section 2: Arboricultural method statement (heads of terms)

14. Table 4: Heads of terms arboricultural method statement

Heads of terms	Overview of appropriate protective measures (to be detailed in response to a planning condition once consent has been given)
Identification of areas to be protected	The tree protection plan shows all the areas where protective measures are necessary. The construction exclusion zone ("CEZ") boundary is shown on the plan as the heavy dashed black line, with the lighter diagonal hatching behind. If necessary, further precautionary areas outside the CEZ are shown on the plan as a yellow coloured fill, where a high level of care is required. This work will be subject to arboricultural supervision.
Tree works	Tree works, based on our assessment of the proposal and the original site inspection, are set out in the work recommendations column of the tree schedule in Appendix 2. The location of each tree by number is shown on the tree protection plan and any to be removed are indicated with a red crown outline. All tree works must be reassessed before any site activity starts as part of the standard risk management process.
Fencing	Protective fencing must be installed at the locations shown on the tree protection plan by the heavy black dashed line. If agreed with the LPA, fencing can be set back to improve access, provided the exposed ground is protected with ground protection. This work will be subject to arboricultural supervision.
Ground protection	Ground protection must be installed wherever RPAs are exposed and not enclosed by fencing. This will be where fencing has been agreed to be set back, and in all precautionary areas. This work will be subject to arboricultural supervision.
Existing surfacing to be retained	The existing hard surfacing along the access road will be retained and utilised where possible. Any surfacing disrupted during the course of the construction activity will be reconditioned or upgraded as necessary.
Surfacing to be removed and replaced with new surfacing	The existing tarmac drive next to T16 and T17 will be removed and new footpath will be installed. No excavation is to be permitted into existing soil levels below the sub-base. All works must be carried out in accordance with the appropriate guidance and subject to arboricultural supervision. Detailed cross section will be made available prior to works commencing.
New and existing services	All excavation for the installation of new services or the upgrading of existing services must be carried out in accordance with the appropriate guidance. This work will be subject to arboricultural supervision where any new excavation is required in proximity to retained trees.
Removal of protection	All protective barriers must remain in place until the construction activity is finished and there is no realistic risk of damage to the protected soil surfaces. This work will be subject to arboricultural supervision.
Tree planting	An illustrative tree planting scheme has been indicated on the tree protection plan. It would be appropriate for the precise detail to be agreed with the LPA through a planning condition.
Landscaping	All landscaping activity must be carefully controlled once the protective measures have been removed. This work will be subject to arboricultural supervision.
Other risks to trees	Any significant risk to trees from activities outside RPAs, but close enough to have a knock-on impact, must be assessed and appropriate precautions put in place to reduce that risk. Such risks include, <i>inter alia</i> , chemical pollution, cranes and high loads.

15. Heads of terms construction method statement

A construction method statement is a description of how operations that may affect trees will be carried out to minimise any adverse impact on them. The details of how the site will be managed are construction and contractual matters that can only be finalised once the post-consent detailed planning begins. For that reason, at this stage in the planning process, it is only possible to list a heads of terms summary of the issues that will require more detailed consideration once consent is issued. The issues that are likely to require further explanation on this site include:

1. The order of work on site, including demolition, site clearance and building work.

Section 2: Arboricultural method statement (heads of terms)

2. Erection and maintenance of security hoarding near trees.
3. Who will be responsible for protecting the trees on site.
4. Detailed proposals for inspecting and supervising the tree protection, and how problems will be reported and solved.
5. How accidents and emergencies involving trees will be managed, including accidental damage to roots and their treatment.
6. Details of facilitation pruning and access into site. What size vehicles will be used under canopies and will large machinery be lifted over trees.
7. The parking arrangements for workers and visitors.
8. A schedule of emergency contact numbers.
9. Areas for loading and unloading of materials and storage of materials and plant.
10. Where site facilities will be sited and when will they be installed.
11. How machinery and equipment (such as excavators, cranes and their loads, concrete pumps and piling rigs) will enter, move on, work on and leave the site.
12. Wheel washing facilities near trees.
13. Measures to control the emission of dust and dirt during construction near trees.
14. Recycling and storage of waste near trees.
15. Details of earthworks, grading and mounding and removal of spoil, including any planned lowering or raising of ground levels in proximity to retained trees.
16. Details of removing existing surfacing and replacement with new surfacing next to trees T16 and T17.
17. Precise services locations, including the method of excavation when near trees.
18. Proposed locations of site facilities/crane location/material storage/loading bays etc.
19. How post-construction damage through compaction to soil near existing trees and new trees will be ameliorated.

Note: It is not our role as arboricultural consultants to detail the timing and implementation of these measures, although we can input into the process and will need to confirm that the final proposals will not adversely affect retained trees.

16. Arboricultural supervision

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

1. a pre-commencement meeting before any work starts;
2. regular supervision visits to oversee the agreed tree protection; and
3. further supervision visits as necessary to oversee any unexpected works that could affect trees.

Section 3

Appendices

Appendix 1: Background administrative information, data collection and any additional relevant information

17. Table 5: Background administrative information

	Background administrative information
Report date & reference	19/12/2016 – 16371-AA2-CA
Tree protection plan reference	BT2
Our instructing client	Sundial Planning
Our 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 confined to the heads of terms
Provided documents	Land survey, drawing number 4779/03 received by email on 25 November 2016 and layout, drawing number HP16098 003 received by email on 12 December 2016
Report author and credentials	Chris Alder is a Chartered Forester (www.charteredforesters.org) and fully qualified to undertake the assessments in this report. Further details of his credentials can be found at www.barrelltreecare.co.uk
Report limitations	We have not checked if the trees are protected. If any tree works are proposed before a planning consent is given, then the 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, detailed consideration was given to 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 http://www.legislation.gov.uk/ukpga/1990/8/contents • National Planning Policy Framework ("NPPF"), published by the DCLG www.gov.uk/government/publications/national-planning-policy-framework--2 • BS 5837 (2012) <i>Trees in relation to design, demolition and construction – Recommendations</i>, BSI http://shop.bsigroup.com/ • BS 8545 (2014) <i>Trees: from nursery to independence in the landscape – Recommendations</i>, BSI http://shop.bsigroup.com/ • BS 3998 (2010) <i>Tree work – Recommendations</i>, BSI http://shop.bsigroup.com/ • <i>Trees in the Townscape: A Guide for Decision Makers</i>, published by the Trees & Design Action Group http://www.tdag.org.uk/ • <i>Trees in Hard Landscapes: A Guide for Delivery</i>, published by the Trees & Design Action Group http://www.tdag.org.uk/ • National Joint Utilities Group (2007) Volume 4, Issue 2: <i>Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees</i> www.njug.org.uk/publications/

Appendix 1: Background administrative information, data collection and any additional relevant information

18. Table 6: Data collection

	Data collection
Date of site visit	29/11/2016
People present during site visit	Chris Allder
Weather & visibility	Clear, still and dry with good visibility
Limitations to observations	• Our inspection of the trees for the purposes of assessing their condition and work requirements is 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 location and numbering	Each tree was inspected and the numbering scheme is indicated on the tree protection plan. If appropriate, obvious hedges and groups were identified and numbered. If 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 tree and any group or hedge found on site, 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.

Appendix 1: Background administrative information, data collection and any additional relevant information

19. Additional relevant information on specific trees



Photo 1: Trees 11 and 12 both have been topped in the past and have significant decay at the base of the stem. They are not in a sustainable location to be retained and should be removed in the interests of good management irrespective of development.

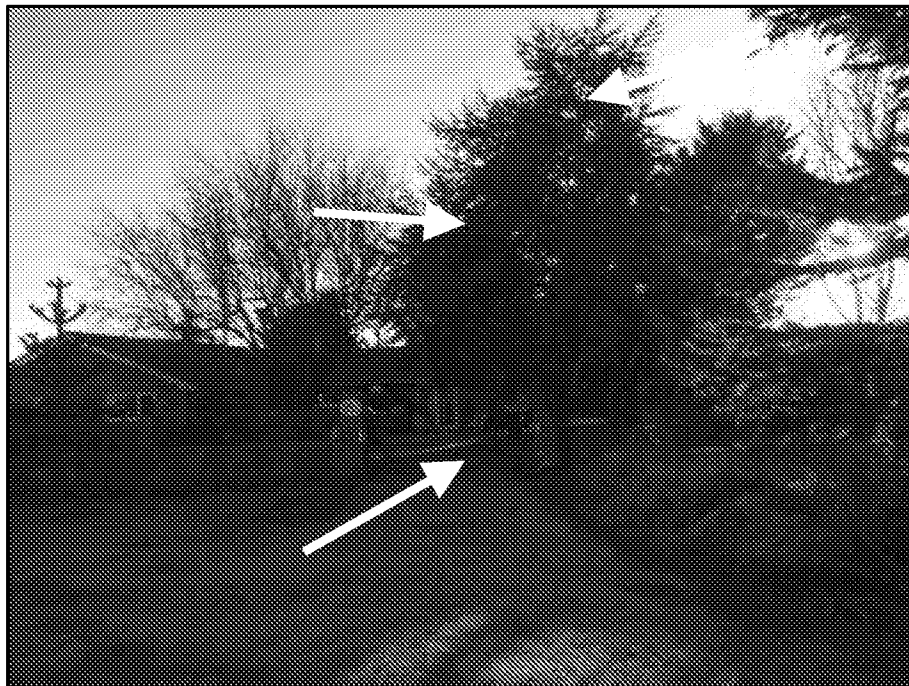


Photo 2: Trees 16 and 17 (arrowed) to be retained. Existing tarmac (bottom arrow) to be removed and replaced with pedestrian footpath. No excavation will be undertaken below the sub-base into the soil.

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 (m ²)
All retained trees & hedges								Carry out safety check		
H1	Leyland cypress	3	25	Maturing	-	C	Clipped	Clip back over access	3.0	28
H2	Cherry laurel	2	20	Maturing	-	C	Clipped	Fell part for reconditioned access road	2.4	18
G3	Leyland cypress	5	40	Maturing	-	C	Topped, off-site	Clip back over access	4.8	72
G4	Leyland cypress	4	30	Maturing	-	C	Topped, off-site	Clip back over access	3.6	41
G5	Birch	12	40	Mature	-	C	Off-site, overhanging access, minor defects, previously pruned	Crown lift to 5m over access	4.8	72
G6	Thorn	4	40	Mature	-	C	Small trees	-	4.8	72
H7	Hawthorn	3	15	Maturing	-	C	Clipped	Clip back over access	1.8	10
T8	Bay	5	40	Mature	-	C	Clump	Fell for access road	4.8	72
H9	Laurel	2	15	Maturing	-	C	Clipped	Clip back over access	1.8	10
T10	Cherry	5	30	Maturing	-	C	Small, suppressed	Fell	3.6	41
T11	Gum	15	62.5*	Mature	-	U	Topped, significant decay at base	Fell	7.5	177
T12	Gum	15	65*	Mature	-	U	Topped, significant decay at base	Fell	7.8	191
T13	Cedar of Lebanon	10	25	Maturing	-	C	Ivy clad, previously transplanted	Fell	3.0	28
T14	Leyland cypress	7	20	Maturing	-	C	Up against wall	Fell	2.4	18
T15	Beech	10	35	Maturing	-	C	Tight forks, multi-stemmed at 0.5m	Fell	4.2	55
T16	Atlantic cedar	10	35*	Maturing	-	B	Good	-	4.2	55
T17	Atlantic cedar	10	37.5*	Maturing	-	B	Good	-	4.5	64
T18	Purple plum	6	35	Mature	-	C	Small	Fell	4.2	55

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)
T19	Monkey puzzle	4	15	Young	0	C	New planting	Fell	1.8	10
T20	Purple plum	6	20	Maturing	0	C	Small, poor	Fell		
T21	Cherry	8	40	Mature	-	C	Ivy clad, short	Fell	4.8	72
T22	Norway maple	10	20*	Maturing	-	C	Small	Fell	2.4	18
T23	Weeping willow	12	65*	Mature	-	U	Poor, in decline, decay in stem	Fell	7.8	191
T24	Monterey cypress	16	62.5*	Mature	-	C	Twin-stemmed at 2m	Fell	7.5	177
T25	Monterey cypress	16	57.5*	Mature	-	C	Twin-stemmed at 3m	Fell	6.9	150
T26	Arizona cypress	10	60	Mature	-	C	Dieback and decline, poor	Fell	7.2	163
T27	Norway maple	12	20	Maturing	-	C	Small trees	Fell	2.4	18
T28	Monterey cypress	16	70*	Mature	-	B	Ivy clad	Fell	8.4	222
G29	Laurel, cypress	6	20	Maturing	-	C	Clump	Fell	2.4	18
G30	Leyland cypress	12	45	Mature	-	C	Overgrown and dense, poor	Fell	5.4	92
G31	Leyland cypress	6	30	Maturing	-	C	Small trees	Fell	3.6	41
T32	Goat willow	4	30	Maturing	-	C	Clump, multi-stemmed	Fell	3.6	41
G33	Birch	8	35	Maturing	-	C	Small, poor, previously pruned	Fell	4.2	55
G34	Bay, thorn	4	20	Maturing	-	C	Small overgrown shrub	Fell	2.4	18
T35	Cypress	6	40	Mature	-	C	Small	Fell	4.8	72
G36	Thorn, ash, goat willow	8	35	Mature	-	C	Small trees, dense and overgrown	Fell	4.2	55
T37	Ash	15	60	Mature	-	B	Unable to access due to density of undergrowth	-	7.2	163
G38	Goat willow	5	30	Maturing	-	C	Small trees in dense undergrowth	Fell	3.6	41

Appendix 2: Tree schedule and explanatory notes

Explanatory Notes

- **Abbreviations:**

G : Group
H : Hedge
RPA : Root protection area

- **Botanical tree names:**

Arizona cypress	: <i>Cupressus arizonica</i>
Ash	: <i>Fraxinus excelsior</i>
Atlantic cedar	: <i>Cedrus libani atlantica</i>
Bay	: <i>Laurus nobilis</i>
Beech	: <i>Fagus sylvatica</i>
Birch	: <i>Betula pendula</i>
Cedar of Lebanon	: <i>Cedrus libani</i>
Cherry	: <i>Prunus</i> sp
Cherry laurel	: <i>Prunus laurocerasus</i>
Cypress	: <i>Cupressus</i> sp
Goat willow	: <i>Salix caprea</i>
Gum	: <i>Eucalyptus gunnii</i>
Hawthorn	: <i>Crataegus monogyna</i>
Laurel	: <i>Prunus laurocerasus</i>
Monkey puzzle	: <i>Araucaria araucana</i>
Norway maple	: <i>Acer platanoides</i>
Purple plum	: <i>Prunus cerasifera</i> 'Nigra'/'Pissardii'
Thorn	: <i>Crataegus monogyna</i> and <i>prunus spinosa</i> mix
Weeping willow	: <i>Salixx chrysocoma</i>

- **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 annotated with a '*'.
- **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 poor quality. The point of measurement and the adjustments for stem variations are as advised in Figure C1 of BS 5837.

Appendix 2: Tree schedule and explanatory notes

- **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.
- **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.
- **Tree works:** The recommended tree works are based on the quick visual check level of inspection and only intended to address significant hazards identified during that inspection.
- **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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