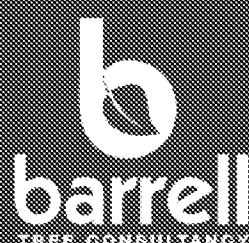




Arboricultural opportunities and constraints assessment

Dappers Lane, Angmering, West Sussex



Alex Needs BA(Hons) MICFor MArborA

10th July 2018 18167-ConstraintsReport-AN

Site location, report purpose, and notes on using the advice

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 opportunities and constraints assessment is to provide sufficient tree information for the architect to prepare a preliminary layout, taking proper account of the tree constraints. This advice relates to significant trees at Dappers Lane, Angmering, West Sussex.

This report includes:

- A **Tree constraints plan** showing the significant trees and the constraints they impose.
- Advice describing the **Arboricultural opportunities and constraints assessment** (section 1 of the report).
- **Appendices** (**Appendix 1** – Background administrative information and data collection; and, **Appendix 2** – Tree schedule and explanatory notes.)



Site location, report purpose, and notes on using the advice

Notes on using this advice

Architects must read and heed the following notes on using this advice:

1. **It is only draft:** This information is strictly draft in nature to provide preliminary guidance. The report is based on a brief site inspection and it may be necessary to adjust any initial designs before they are suitable for final submission.
2. **Plans:** All plans are based on provided information and are illustrative for planning purposes. They should only be used relating to tree issues and are not suitable for any other purpose.
3. **Other constraints:** This plan only shows the tree constraints and does not consider any other constraints, e.g. ecological, archaeological, etc.
4. **Confidentiality:** This report is confidential to the Client and should not be released to any Third Party without prior consultation with us and consent from the Client.
5. **Proposed disturbance within RPAs:** We must be clearly notified of any disturbance proposed in RPAs so that we can advise on the implications before plans are finalised.
6. **Further consultation on tree issues:** Any design based on this report must be reviewed by us before submission to the local planning authority (LPA).

1: Arboricultural opportunities and constraints assessment

1.1 Place making opportunities

Place making is becoming an increasingly important aspect of modern planning, and trees can significantly contribute to making new developments interesting and pleasant places to live. However, this site lacks any useful internal tree features, which increases the importance of new structural tree planting as a means of creating a new landscape that is attractive and engaging for prospective purchasers. When starting with a blank canvas, careful tree planting along the primary entrance route can create a positive first impression and is often a cost effective way of creating a memorable impact from a weak starting point. In this context it would be worth considering a significant tree feature around the show homes and marketing suite, and along the main access. This could include an avenue of trees leading into the site or a road layout that aligns to a landmark tree, or open space area. Given the lack of substantial trees within the site, there may be opportunity to emphasise the importance of **T2, T3, G4, T5, T6, T7, T17, T36, and T43** within the local landscape by locating them at the end of avenues or next to dedicated green spaces.

Our experience is that LPAs are increasingly favouring designs that provide such information at the application stage, rather than leaving it to a condition. These are aspects that we could work up in a structural tree planting strategy as part of our overall submission, if you think it might be useful.

1.2 Guidance on how to use the tree constraints information

The notes on the tree constraints plan explain how the information is presented and how it should be used. Those notes must be read and understood to properly interpret the constraints advice.

1.3 Trees not shown on the topographical survey

T15, G18, G24, G27 (part), G29, T30, T31, T32, G33, G44, T46, and G47 were not shown on the topographical survey, which is contrary to the BS advice. I have illustrated their approximate locations and canopies on the tree constraints plan, but these positions have not been accurately surveyed. I do not consider that this has affected the conclusions of this report, but if their locations are considered important, they should be accurately surveyed. It is likely that the LPA will require this information and I advise that they are accurately plotted before the final submission.

1.4 Modified RPA of T43 due to the road.

This is an important A category tree and the LPA is likely to want it retained without any adverse impact. However, there are some substantial obstructions to root growth from the adjacent road that are likely to have affected the extent of its RPA. I have adjusted the annotated extent of the RPA to take account of what I believe is a reasonable interpretation of where its roots are. This has effectively offset the tree's RPA further into the site. Although I am confident that we can robustly support that judgment, the LPA may disagree and demand a greater RPA. As we will not know the precise LPA stance until the application is submitted, I advise that you observe the constraints I have shown.

1.5 Low branches overhanging the site

T17, T19, and T23 are located within the adjacent woodland to the north of the site. They are prominent trees within the local landscape and the LPA is likely to want them retained without any adverse impact. Due to their woodland edge location they have grown substantially over the site and there is evidence of large branch failure.



1: Arboricultural opportunities and constraints assessment

In my opinion it is advisable not to locate domestic amenity space under the canopy of these trees, or to locate new dwellings in close proximity to them as the LPA may consider that this will place the trees under pressure for pruning or removal in the longer term. The tree constraints plan BT1 shows a Zone 2 constraints area around the crowns of these trees which should be avoided, however I may be able to make a case to locate access roads and/or light non-habitable structures, such as sheds and bike/bin stores in these areas.

1.6 New structures or surfacing within RPAs

If it is proposed to place any new structures or hard surfacing within RPAs, it is likely that the LPA will require detailed cross-sections as reassurance that what is proposed can be implemented without excavating into existing soil levels. These must be at a scale that allows the relationship between existing and proposed to be easily seen, i.e. it must clearly demonstrate that there will be no excessive disturbance of RPAs. There must be a separate cross-section for each significant tree that may be affected. Our experience is that providing this level of information at an early stage often saves delays in processing planning applications and can sometimes be the difference between a consent and a refusal.

1.7 Drainage and other services

Drainage runs, soakaways, and the installation of other services, can cause disruption to RPAs and result in important trees being damaged. It is preferable to keep all such services out of RPAs because the more encroachment there is, the less likely the LPA is to find proposals acceptable. We advise that these matters are considered at an early stage to avoid a justifiable reason for refusal further into the design process. Our experience is that demonstrating services will not encroach into RPAs often saves delays in processing planning applications and again, can sometimes be the difference between a consent and a refusal.

1.8 Essential checks before carrying out any tree works

We have not confirmed whether the trees on this site are covered by a tree preservation order or located in a conservation area. You must check this before carrying out any works. If there is any statutory protection, it will be necessary to consult with the LPA before any works other than certain exemptions can be carried out.

1.9 Ecological constraints

The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act 2000, provides statutory protection to birds, bats and other species that inhabit trees. These could impose significant constraints on the use and timing of access to the site in addition to any of the tree constraints set out in this report. These issues are beyond our area of expertise and we advise that you seek the advice from an ecologist on whether any such constraints apply to this site.

1.10 Further arboricultural consultation

This report is the first stage of arboricultural consultation to allow a draft layout to be produced. Invariably, all preliminary layouts need further review by an arboriculturist to confirm they have fully accounted for the tree constraints. Once this has happened and a final layout has been agreed, we will prepare an arboricultural impact appraisal report as supporting information for the final submission.



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If appropriate, this will include a detailed arboricultural method statement to set out the tree protection and implementation details, demonstrating that all the tree issues have been properly considered. Once the LPA has considered the submissions, its team may not agree with our assessment and it may be necessary to enter into further discussions to address any areas of concern. If this results in any design changes, we would normally update our final report to produce a formal agreed document suitable for reference in a planning condition.

1.11 Architect's summary checklist

In the context of our experience, we have drawn up the list of checks that we have found beneficial for the architect to consider. Early review of the following points may reduce delays in getting a final decision from the LPA:

1. Read the explanations on the tree constraints plan carefully to understand how the constraints zones are established and the implications they have on the layout
2. Do not design any disturbance in zone 1 without telling us and checking on the implications for trees
3. Carefully consider the specific points that apply to this site, as set out above
4. We must review any layout produced based on the information in this report before it is submitted
5. This report is confidential to the developer's team and must not be released to any other parties without proper authorisation
6. All future drawings that relate to tree issues must have all the trees shown and numbered as set out in this report

Appendix 1: Background administrative information and data collection

A1.1 Table 1: Background administrative information

	Background administrative information
Report date & reference	10 th July 2018; 18167-ConstraintsReport-AN
Tree protection plan reference	BT1
Instructing client	Persimmon Homes Thames Valley
Instructions	Visit the site, assess the relevant trees, prepare a schedule of their details, advise on the constraints and opportunities, and prepare a tree constraints plan.
Provided documents	Topographical survey, drawing number H1027/31777 – 1, received by email on 25 th June 2018
Report author and credentials	Alex Needs is a Chartered Forester (www.charteredforesters.org) and an AA Registered Consultant (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.

A1.2 Table 2: Data collection

	Data collection
Date of site visit	4 th July 2018
People present during site visit	Alex Needs
Weather & visibility	Clear 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.



Appendix 1: Background administrative information and data collection

	Data collection
	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 3 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 3.



Appendix 2: Tree schedule and explanatory notes

NOTE: Colour annotation is A & B trees with green background; C & U trees with blue background;

Tree No	Species	Height (m)	Diameter (cm) @ 1.5m	Maturity	Low Branches	Category	Notes	RPA radius (m)
H1	Cypress	7	20	Maturing	-	C	Offsite tree	2.4
T2	Poplar	18	35	Maturing	-	B	Offsite tree	4.2
T3	Poplar	18	42.5	Maturing	-	B	Offsite tree	5.1
G4	Poplar, willow, aspen	20	40	Maturing	-	B	Offsite tree	4.8
T5	Poplar	20	50	Maturing	-	B	Offsite tree	6.0
T6	Poplar	20	35	Maturing	-	B	Offsite tree	4.2
T7	Poplar	18	30	Maturing	-	B	Offsite tree	3.6
H8	Cypress	7	20	Maturing	-	C	Offsite tree	2.4
T9	Maple	11	35	Maturing	-	C	Offsite tree	4.2
T10	Spruce	11	25	Maturing	-	C	Offsite tree	3.0
G11	Birch	11	25	Maturing	-	C	Offsite tree	3.0
T12	Oak	16	75	Mature	-	B	Offsite tree, twin stemmed	9.0
T13	Ash	12	30	Maturing	-	C	Offsite tree, suppressed by neighbouring tree	3.6
T14	Hawthorn	4	25	Maturing	-	C	Offsite tree	3.0
T15	Ash	15	45	Maturing	-	B	Offsite tree	5.4
T16	Oak	3	20	Maturing	-	C	Offsite tree	2.4
T17	Oak	19	100	Mature	Yes	A	Offsite tree with low branches over site	12.0
G18	Holly, hawthorn, elder	6	20	Maturing	-	C	Offsite understory boundary group	2.4
T19	Oak	9	50	Maturing	Yes	C	Offsite tree with squat form and low branches over site	6.0
T20	Oak	7	50	Mature	-	C	Offsite tree with heavily one sided crown and historic limb failure over site	6.0
T21	Ash	19	60	Maturing	-	B	Offsite tree	7.2
T22	Oak	20	40	Maturing	-	B	Offsite tree	4.8



Appendix 2: Tree schedule and explanatory notes

Tree No	Species	Height (m)	Diameter (cm) @ 1.5m	Maturity	Low Branches	Category	Notes	RPA radius (m)
T23	Oak	17	50	Mature	Yes	B	Offsite tree with low branches over site	6.0
G24	Hazel, hawthorn	8	15	Maturing	-	C	Offsite understory boundary group	1.8
T25	Ash	19	50	Maturing	-	C	Offsite tree with multiple stems	6.0
T26	Ash	19	45	Maturing	-	B	Offsite tree	5.4
G27	Ash	18	40	Maturing	-	B	Offsite group	4.8
G28	Hawthorn, elm, ash, blackthorn	7	20	Maturing	-	C	Offsite boundary group	2.4
G29	Ash	15	30	Maturing	-	B	Offsite group	3.6
T30	Ash	15	30	Maturing	-	B	Offsite tree	3.6
T31	Ash	15	30	Maturing	-	B	Offsite tree	3.6
T32	Copper beech	7	27.5	Maturing	-	C	Offsite tree	3.3
G33	Hazel, birch	5	20	Maturing	-	C	Offsite group	2.4
T34	Hawthorn	7	30	Maturing	-	C	Heavily ivy clad trunk and crown	3.6
G35	Hawthorn, laurel, oak	6	20	Maturing	-	C	Offsite group	2.4
T36	Oak	16	60	Maturing	-	B	Offsite tree	7.2
T37	Birch	7	25	Maturing	-	C	Offsite tree	3.0
T38	Shrub	5	25	Maturing	-	C	Offsite tree	3.0
T39	Birch	6	20	Maturing	-	C	Offsite tree	2.4
T40	Birch	6	20	Maturing	-	C	Offsite tree	2.4
G41	Hawthorn	4	17.5	Maturing	-	C	Offsite group	2.1
G42	Hawthorn, hazel, sycamore, elm	6	20	Maturing	-	C	Offsite boundary group	2.4
T43	Oak	20	115	Maturing	Yes	A	Offsite tree with low branches over site	13.8
G44	Willow, hawthorn, field maple	6	17.5	Maturing	-	C	Offsite group	2.1
T45	Cypress	8	50	Maturing	-	C	Offsite tree topped at 6m	6.0



Appendix 2: Tree schedule and explanatory notes

Tree No	Species	Height (m)	Diameter (cm) @ 1.5m	Maturity	Low Branches	Category	Notes	RPA radius (m)
T46	Willow	5	25	Maturing	-	C	Offsite tree leaning over site	3.0
G47	Hawthorn, oak, dogwood	5	15	Maturing	Yes	C	Offsite group	1.8

Appendix 2: Tree schedule and explanatory notes

Explanatory Notes

- **Abbreviations:**

G : Group
H : Hedge
T : Tree

- **Botanical tree names:**

Ash	: <i>Fraxinus excelsior</i>
Aspen	: <i>Populus tremula</i>
Birch	: <i>Betula pendula</i>
Blackthorn	: <i>Prunus spinosa</i>
Copper beech	: <i>Fagus sylvatica</i> 'Purpurea'
Cypress	: <i>Cupressus</i> sp
Dogwood	: <i>Cornus</i> sp
Elder	: <i>Sambucus nigra</i>
Elm	: <i>Ulmus</i> sp
Field maple	: <i>Acer campestre</i>
Hawthorn	: <i>Crataegus monogyna</i>
Hazel	: <i>Corylus avellane</i>
Holly	: <i>Ilex aquifolium</i>
Laurel	: <i>Prunus laurocerasus</i>
Maple	: <i>Acer</i> sp
Oak	: <i>Quercus robur</i>
Poplar	: <i>Populus</i> sp
Spruce	: <i>Picea</i> sp
Sycamore	: <i>Acer pseudoplatanus</i>
Willow	: <i>Salix</i> sp

- **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 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.



Appendix 2: Tree schedule and explanatory notes

- **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.
- **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.

