arbtech

Arboricultural Survey to BS5837:2012

Mr A Grant

Nately Scures House,
Scures Hill,
Hook,
Hampshire,
RG27 9JR

14 February 2022

Jim Green

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If this report has been released electronically the appendices referred to herein can be found in the annexed zip folder/s as .pdf files. If this report has been released in hard copy the appendices will be bound into the back of this report. Plans are annexed separately as A0, A1, A2 or A3 as appropriate.

1. Introduction

Arbtech Consulting Limited (Arbtech) received written instruction on 24th January 2022 from Dorian Grant to attend Nately Scures House, Scures Hill, Hook, Hampshire, RG27 9JR; grid reference, SU704530 (site) to undertake an arboricultural survey a to BS5837:2012 guidance to assess trees, hedges and major shrub groups growing on and within influencing distance of the site and to produce a Schedule of trees and a Tree Constraints Plan.

I am Jim Green, an arboricultural consultant at Arbtech Consulting Ltd. I undertook the tree survey on 9th February 2022 and subsequently have produced this summary of my findings.

I have over thirty years of industry experience and am a Professional Member of the Arboricultural Association.

The advice below and appended is underwritten by our Professional Indemnity insurance for the business practice of Arboricultural Consultancy in the sum of one million Pounds Sterling in each and every claim.

Table 1: Documents referred to.

Document	Reference No.
Survey base drawing	20-400/01
LPA pre-app comments	N/A
British Standard 5837:2012	"BS5837"
Tree Survey Schedule	Arbtech TS 01
Tree Constraints Plan	Arbtech TCP 01

2. Survey

Survey: An arboricultural survey to BS5837 of all trees within impacting distance of the site was undertaken by Jim Green on 9th February 2022.

During the survey I categorised the trees using "Table 1 – Cascade chart for tree quality assessment" of the BS5837:2012 (see Appendix 1).

A total of 38 (thirty-eight) individual trees, 8 (eight) groups of trees and 1 (one) collection of trees were surveyed. Details for each of the trees surveyed are provided in the Schedule of Trees (see Appendix 2).

Multiple other small trees and shrubs occupy the site, none of which meet the minimum diameter requirements to be considered for this survey.

Table 2: Documents upon which this tree survey has been based.

Document	Originator	Reference Number	Title
Topo	Trigon Survey & Investigation Ltd	20-400/01	Topographical Survey

Limitations: The survey was made at ground level using visual observation only. Detailed examinations, such as climbing inspections and advanced decay detection equipment were not employed, though may form part of the survey's management recommendations. Measurements were taken using specialist tapes, laser, and GPS devices. Where this was not possible, measurements are estimated.

Scope: Pre-development tree surveys make arboricultural management recommendations based exclusively upon the individual tree or group of trees condition relative to their present context (*i.e. not in relation to the proposed development*).

Legal Status: No statutory protection check has been performed. BS5837 does not draw any distinction between trees subject to statutory protection, such as a Tree Preservation Order ("TPO"), and those trees without. This is principally because a detailed planning consent overrides any TPO protection. Consequently, we do not seek to offer any comparison between or infer any difference in the quality or importance of TPO trees and other trees.

* For more information on the surveyed trees please see Arbtech Consulting Ltd, Tree Survey Schedule (Appendix 1), Tree Survey Report and Tree Constraints Plan.

Site description

The site is a plot of land to the east of Nately Scures House and is bordered to the north by the A30 London Road; to the east by an adjacent property boundary; to the south by open fields and to the west by the proposed boundary with Nately Scures House itself.

The site is a mainly wooded area and generally slopes from north to south by an incline of approximately 1:5. There is a clear track running south from the northern boundary fence (site of proposed driveway) to a 1.5m bank which descends to a level and clear tableau of land (site of proposed house and garage) approximately two thirds of the way down the plot. At the southern end there is another 1.5m bank which descends to the final third of the plot.

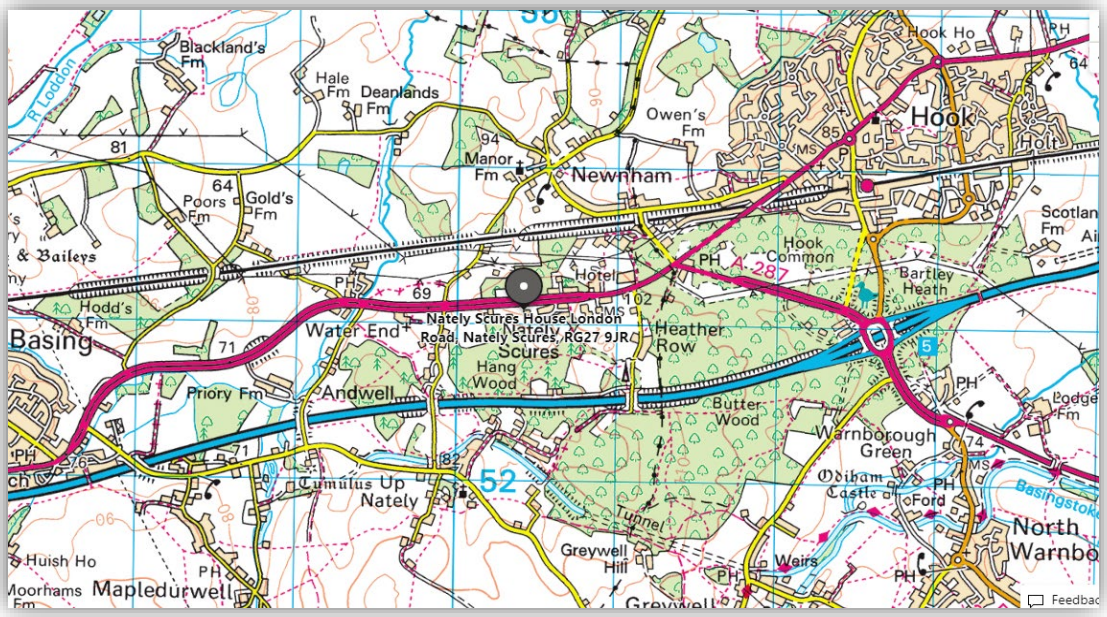

Figure 1: OS Map (Bing Maps)

Figure 2: Aerial Image of site with approximate red line boundary (Google Earth)

Proposed scheme

The proposed scheme for the site is to construct a single modern dwelling (~4500 sq ft living space) complete with separate garage.

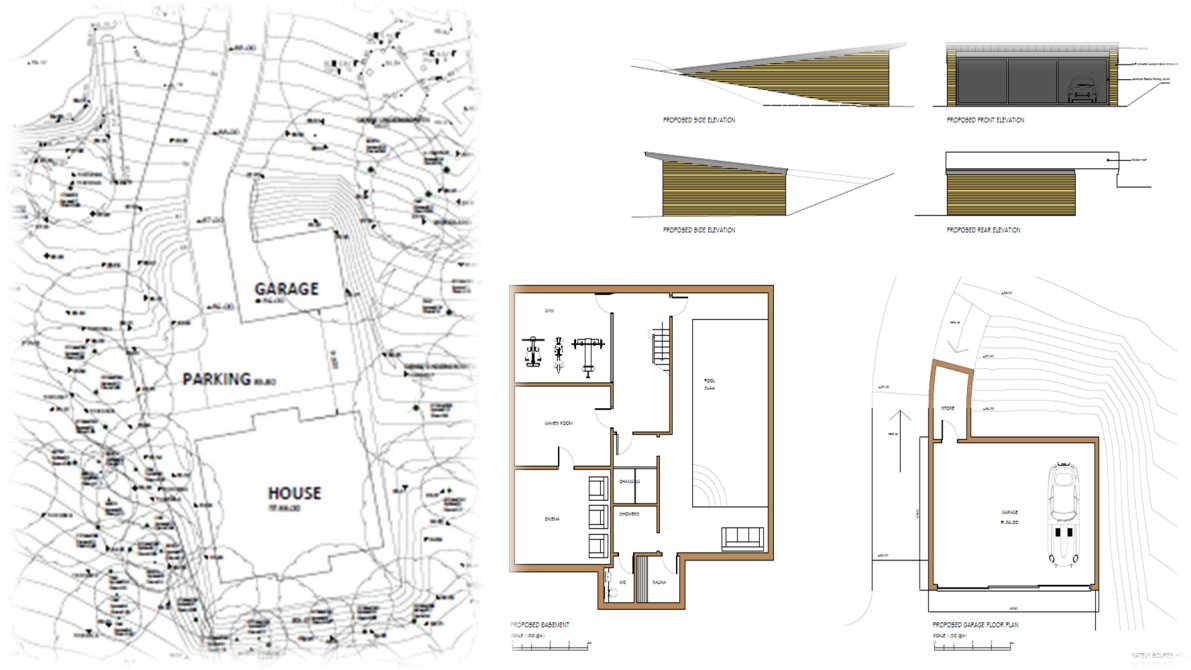

Figure 3: Proposed scheme, drawing numbers P.01 & P.03

It is likely that arboricultural impacts can be addressed with arboricultural methodology or minor amendments to the proposal.

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3. BS5837:2012 Scope

This standard recognises that there can be problems for development close to existing trees which are to be retained, and of planting trees close to existing structures. This standard sets out to assist those concerned with trees, in relation to construction, to form balanced judgements. It does not set out to put arguments for or against development, or for the removal or retention of trees. Where development, including demolition, is to occur, the standard provides guidance on how to decide which trees are appropriate for retention, on the means of protecting these trees during development, including demolition and construction work, and on the means of incorporating trees into the developed landscape.

4. Methodology

The methodology used to assess the trees was the British Standard 5837:2012 'Trees in Relation to Construction' tree survey method. The aim of the survey is to establish which trees are moderate and good quality; suitable for retention and justifying protection. And which trees are low or poor quality; either undesirable or unsuitable to retain and protect.

The tree survey includes all trees included in the land survey red line boundary plan, as well as any that may have been missed, and it should categorize trees or groups of trees, including woodlands for their quality and value within the existing context, in a transparent, understandable, and systematic way. Where the arboriculturist has deemed it appropriate, the trees have been tagged with small metal or plastic tags, placed as high as is convenient on the stem of each tree.

Whilst master plan proposals for the development of the site might be available, the trees have been surveyed without taking these into consideration. All detailed design work on site layout should take into consideration the results of the tree survey (and the TCP).

Trees forming groups and areas of woodland (including orchards, wood pasture and historic parkland) are identified and considered as groups where the arboriculturist has determined that this is appropriate, particularly where they contain a variety of species and age classes that could aid long-term management. It is often expedient to assess the quality and value of such groups of trees as a whole, rather than as individuals. However, an assessment of individuals within any group has been undertaken if they are open-grown or if there is a need to differentiate between them.

The quality and value of each tree or group of trees has been recorded by allocating it to one of the four categories: A, B, C, or U (highest to lowest quality respectively). The categories are differentiated on the tree survey plan by colour, or by suffixing the category adjacent to the tree identification number on the TCP.

The survey schedule lists all the trees or groups of trees. The following information is also provided:

a) reference number (to be recorded on the tree survey plan);
b) species (common or scientific names);
c) height in meters (m);
d) stem diameter in millimetres (mm) at 1.5m above adjacent ground level or immediately above the root flare for multi-stemmed trees;
e) branch spread in meters taken at the four cardinal compass points;
f) height of crown clearance above adjacent ground level in meters (m);
g) age class (newly planted, young, semi-mature, early mature, mature, over mature);
h) physiological condition (e.g. good, fair, poor, decline and dead);
i) structural condition (e.g. good, fair, poor or not visible);
j) comment about the tree, its location and preliminary management recommendations, including further investigation of suspected defects that require more detailed assessment and potential for wildlife habitat;
k) The retention category referring to the quality and useful contribution in years; **U** = <10yrs; **A** = >40yrs; **B** = >20yrs; **C** = >10yrs. The retention subcategory referring to the type of amenity; 1 = Arboricultural; 2 = Landscape; 3 = Cultural including conservation (see Appendix 1 Cascade chart for tree quality assessment).

5. Definitions

Arboriculturist

An arboriculturist (or arboricultural consultant) is a person who has, through relevant education, training, and experience, gained recognized qualifications and expertise in the field of trees in relation to construction.

Tree Survey

A tree survey should be undertaken by an arboriculturist and should record information about the trees on a site independently of and prior to any specific design for development. As a subsequent task, and with reference to a design or potential design, the results of the survey should be included in the preparation of a tree constraints plan, which should be used to assist with site layout design.

Tree Constraints Plan

A TCP is plan, typically delivered as an AutoCAD drawing (.DWG file format), prepared by an arboriculturist for the purposes of layout design showing the root protection area and representing the effect that the mature height and spread of retained trees will have on layouts through shade, dominance, etc.

Root Protection Area

An RPA is a layout design tool indicating the area surrounding a tree that contains sufficient rooting volume to ensure the survival of the tree, shown in plan form in m^2.

Construction Exclusion Zone (also termed Tree Protection Zone)

A construction exclusion or tree protection zone is an area based on the RPA (in m^2), identified by an arboriculturist, to be protected during development, including demolition and construction work, by the use of barriers and/or ground protection fit for purpose to ensure the successful long-term retention of a tree.

Arboricultural Impact Assessment (AIA)

This is a study, undertaken by an arboriculturist, to identify, evaluate and possibly mitigate the extent of direct and indirect impacts on existing trees that may arise as a result of the implementation of any site layout proposal.

Tree Protection Plan (TPP)

A TPP is plan, typically delivered as an AutoCAD drawing (.DWG file format), prepared by an arboriculturist showing the finalized layout proposals, tree retention and tree and landscape protection measures detailed within the arboricultural method statement, which can be shown graphically.

Arboricultural Method Statement (AMS)

This is a methodology for the implementation of any aspect of development that has the potential to result in loss of or damage to a tree. The AMS is likely to include details of an on-site tree protection monitoring regime.

6. Recommendations

With the benefit of making an assessment of your planning proposals, we make the following recommendation to ensure that there are no irrevocable issues to the proposed retained trees and so that no conditions relating to arboriculture are attached to any planning consent secured; obtain an arboricultural report to include:

a) An arboricultural impact assessment (AIA).
b) An arboricultural method statement (AMS).
c) A tree protection plan drawing (TPP).

7. Limitations

Trees were inspected from using visual observation from ground level only. Trees were not climbed or inspected below ground level. Inaccessible trees will have best estimates made about the location, physical dimensions, and characteristics. Trees have been grouped where BS5837 guides us that it is expedient to do so. Trees have been excluded from the survey if they are found by us to be sufficiently far away from the proposed developable area or if they are outside of the red line boundary plan showing the expectations of our client for the extent of the survey. BS5837 does not draw any distinction between trees subject to statutory protection, such as a Tree Preservation Order ("TPO"), and those trees without. This is principally because a detailed planning consent overrides any TPO protection. Consequently, we do not seek to offer any comparison between or infer any difference in the quality or importance of TPO trees and other trees.

8. Appendices

The following documents were released to the Client as appendices to this report:

- Survey Schedule (.PDF)
- Tree Constraints Plan drawing (.DWG & .PDF)

If you require clarification of information contained herein, please do not hesitate to contact us via 01244 661170.

Yours Sincerely,

Jim Green
Arboricultural Consultant

07706 323238
jimgreen@arbtech.co.uk

Appendix 1: Table 1 Cascade chart for tree quality assessment

BS5837:2012 Trees in relation to design, demolition and construction – Recommendations

Table 1 **Cascade chart for tree quality assessment**

Category and definition	Criteria (including subcategories when appropriate			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.	•Trees that have serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning). •Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline. •Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality. *NOTE Category U trees can have existing or potential conservation value which might be desirable to preserve; see 4.5.7.*			Dark red
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
Trees to be considered for retention				
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years.	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominate and/or principal trees within an avenue).	Trees, groups, or woodlands of particular visual importance as arboricultural and/or landscape features.	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture).	Light green
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years.	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remedial defects, including unsympathetic management and storm damage), such that they are unlikely to be suitable for retention of beyond 40 years; or trees lacking the special quality necessary to merit the category 'A' designation.	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.	Trees with material conservation or other cultural value.	Mid blue
Category C **Trees of low quality** with an estimated remaining expectancy of at least 10 years, or young trees with a stem diameter below 150mm.	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape value.	Trees with no material conservation or other cultural value.	Grey

Appendix 2: Schedule of Trees

BS5837:2012 Tree Survey

Arbtech Consulting Ltd

Unit 3, Well House Barns
Chester Road
Chester
Cheshire
CH4 0DH
Phone: 01244661170

Client: Mr A Grant
Project: Nately Scures House
Survey Date: 09/02/2022
Surveyor: Jim Green

Tree and Tag No / Species	Hght (m)	Stems No	Stems Ø (mm)	Crown Spread (m)	Crown Clear (m)	Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations / Survey Comment	Cat ERC
C01											
A Collection *See comments for details*	11	1	400	N 2 E 2 S 2 W 2	3 3 3 3	SM	A: 72.4 R: 4.8	Good	C: Good S: Good B: Good	Collection of oak, Corsican Pine and sycamore. Dimensions recorded for largest member of group.	**B.1.2** 20+ yrs
G01											
A Group *See comments for details*	18	1	440	N 6 E 4 S 4 W 4	14 15 13 13	SM	A: 87.6 R: 5.28	Good	C: Good S: Good B: Good	Mixed species group of Douglas Fir, Scots pine and Norway maple. Diameter and height recorded to plot RPA's.	**B.1.2** 20+ yrs
G01A										Estimated Measurements	
Scots Pine *Pinus sylvestris*	13	1	320	N 0 E 0 S 0 W 0	3 3 3 3	SM	A: 46.3 R: 3.83	Dead	C: Poor S: Poor B: Poor	Fell :: Fell to ground level Dead tree leaning into adjacent tree to north.	**U** n/a
G02											
A Group *See comments for details*	15	1	520	N 5 E 5 S 5 W 5	8 4 5 4	SM	A: 122.3 R: 6.23	Good	C: Good S: Good B: Good	Mixed species group of Scots pine, Yew, Horse chestnut, Beech and Norway maple. Diameters and heights recorded to plot RPA's.	**B.1.2** 20+ yrs

Age Classifications: N Newly planted; Y Young; SM Semi-mature; EM Early Mature; M Mature; OM Over Mature

Condition: C Crown; S Stem; B Basal area

Stems: Ø Diameter; (Eq) Equivalent stem diameter using BS5837:2012 definition

ERC: Estimated Remaining Contribution

Tree and Tag No Species	Hght (m)	Stems No	Stems Ø (mm)	Crown Spread (m)	Crown Clear (m)	Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
G03											
A Group *See comments for details*	22	1	700	N 4 E 4 S 4 W 4	14 14 14 12	EM	A: 221.7 R: 8.4	Good	C: Good S: Good B: Good	Mixed species group of Scots pine, Corsican pine, Horse chestnut, Beech and maple sp. Diameter and height recorded to plot RPA's.	**B.1.2** 20+ yrs
G04											
A Group *See comments for details*	24	1	760	N 4 E 4 S 6 W 5	11 11 10 10	EM	A: 261.3 R: 9.11	Good	C: Good S: Good B: Good	Mixed species group of ash, Scots pine, Corsican pine and beech. Diameter and height recorded to plot RPA's.	**B.1.2** 20+ yrs
G05											
Corsican Pine *Pinus nigra var.maritima*	17	1	690	N 3 E 4 S 5 W 3	11 12 10 10	SM	A: 215.4 R: 8.28	Good	C: Good S: Good B: Good	Group of three Corsican pine. Dimensions recorded for largest member of group. Stem lean to southeast of 20 degrees from upright. Smaller two members are etiolated with top-heavy crowns due to removal of adjacent companion trees.	**B.1.2** 20+ yrs
G06											
A Group *See comments for details*	13	1	580	N 4 E 6 S 4 W 5	4 3 4 3	SM	A: 152.2 R: 6.96	Good	C: Good S: Good B: Good	Group of common lime, maple sp. and sycamore. Dimensions recorded for largest member of group.	**B.1.2** 20+ yrs
G07											
A Group *See comments for details*	11	1	540	N 5 E 3 S 3 W 4	2 3 4 3	SM	A: 131.9 R: 6.47	Good	C: Good S: Good B: Good	Linear group of three trees consisting of sycamore and Norway maple. Dimensions recorded for largest member of group.	**B.1.2** 20+ yrs
G08											
A Group *See comments for details*	14	1	640	N 4 E 3 S 4 W 3	1 1 1 1	SM	A: 185.3 R: 7.68	Good	C: Good S: Good B: Good	Group of two Lawson cypress. No significant features.	**B.1.2** 20+ yrs

Age Classifications: N Newly planted; Y Young; SM Semi-mature; EM Early Mature; M Mature; OM Over Mature

Condition: C Crown; S Stem; B Basal area

Stems: Ø Diameter; (Eq) Equivalent stem diameter using BS5837:2012 definition

ERC: Estimated Remaining Contribution

Tree and Tag No Species	Hght (m)	Stems No	Stems Ø (mm)	Crown Spread (m)	Crown Clear (m)	Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
T01											
Common Hornbeam *Carpinus betulus*	7	2	438 (Eq)	N 6 E 4 S 2 W 6	3 3 2.5 2.5	SM	A: 86.9 R: 5.25	Fair	C: Good S: Poor B: Good	Fell :: Fell to ground level Boundary tree with asymmetric crown due to adjacent dominant trees. Open cavity to larger stem to north from base to 1.5m occupying approximately 75% of lower stem, extensive decay. Stem lean to north towards road of 30 degrees from upright.	**U** <10 yrs
T02											
Common Horse Chestnut *Aesculus hippocastanum*	19	1	940	N 9 E 7 S 8 W 7	3 6 7 6	EM	A: 399.8 R: 11.28	Good	C: Good S: Good B: Good	Secondary girdling root to base to north. Minor necrosis to base of first secondary union to north at 4m. Occluded helical crack from primary union at 3m to ground.	**B.1.2** 20+ yrs
T03											
Common Beech *Fagus sylvatica*	16	1	540	N 6 E 3 S 4 W 4	8 8 10 7	SM	A: 131.9 R: 6.47	Good	C: Fair S: Good B: Good	Asymmetric crown due to adjacent companion trees. Minor apical dieback with historic tear-out wounds to top of crown with partial occlusion.	**B.1.2** 20+ yrs
T04											
Holm Oak *Quercus ilex*	21	1	1460	N 5 E 4 S 8 W 8	3 8 2.5 3	M	A: 707 R: 15	Good	C: Good S: Good B: Good	Pronounced buttress roots. Stem splits into five codominant stems at 1.6m. Asymmetric crown due to adjacent companion trees to east. Minor dead wood throughout.	**A.1.2** 40+ yrs
T05											
Prunus *Prunus sp.*	10	2	376 (Eq)	N 3 E 2.5 S 3 W 4	1 1 1 1	SM	A: 64.1 R: 4.51	Good	C: Good S: Good B: Good	Prunus lusitanica twin-stemmed from base. Historic mechanical damage to secondary stem to north at 2m, partial occlusion.	**C.1** 10+ yrs

Age Classifications: N Newly planted; Y Young; SM Semi-mature; EM Early Mature; M Mature; OM Over Mature

Condition: C Crown; S Stem; B Basal area

Stems: Ø Diameter; (Eq) Equivalent stem diameter using BS5837:2012 definition

ERC: Estimated Remaining Contribution

Tree and Tag No Species	Hght (m)	Stems No	Stems Ø (mm)	Crown Spread (m)	Crown Clear (m)	Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
T06											
Cappadocian Maple *Acer cappadocicum*	16	1	850	N 7 E 8 S 6 W 6	5 6 4 3	M	A: 326.9 R: 10.2	Good	C: Good S: Good B: Good	Second primary union at 4m bifurcates into codominant stems. Included union has fused to form natural brace. Dead secondary limb at 5m to north and 8m to east, 50mm diameter and 3m in length. Minor deadwood throughout.	A.1.2 40+ yrs
T07											
Common Oak *Quercus robur*	13	1	380	N 3 E 2.5 S 5 W 4	2 6 2 3	SM	A: 65.3 R: 4.55	Good	C: Good S: Good B: Good	No significant features.	B.1 20+ yrs
T08											
Common Beech *Fagus sylvatica*	20	1	500	N 7 E 7 S 4 W 10	9 10 10 9	SM	A: 113.1 R: 6	Fair	C: Fair S: Poor B: Poor	Fell :: Fell to ground level Multiple fungal fruiting bodies of Ganoderma pfefferei to base, between buttresses to south. Two large open cavities to stem to north: one at 2m, 1m long, 150mm at widest point and 300mm deep; second at 4m with similar dimensions. First primary union at 6m is tight and V-shaped, with bark inclusion and pronounced ribs of reactive growth. Dead wood to northeast at 8m, 75mm diameter and 8m in length. Crown sparse.	U <10 yrs
T09											
Common Beech *Fagus sylvatica*	16	1	490	N 3 E 3 S 2 W 4	6 6 5 4	SM	A: 108.6 R: 5.87	Poor	C: Poor S: Fair B: Good	Apical leader standing dead from 8m, 200mm diameter and 5m in length. Lesser codominant stem remains to west. Crown sparse.	U <10 yrs
T10										Estimated Measurements	
Common Beech *Fagus sylvatica*	7	1	680	N 0 E 0 S 0 W 0	4 7 7 7	SM	A: 209.2 R: 8.16	Dead	C: S: Poor B:	Standing dead stump. Backets of Ganoderma sp. and woodpecker holes.	U n/a

Age Classifications: N Newly planted; Y Young; SM Semi-mature; EM Early Mature; M Mature; OM Over Mature

Condition: C Crown; S Stem; B Basal area

Stems: Ø Diameter; (Eq) Equivalent stem diameter using BS5837:2012 definition

ERC: Estimated Remaining Contribution

Tree and Tag No Species	Hght (m)	Stems No	Stems Ø (mm)	Crown Spread (m)	Crown Clear (m)	Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
T11											
Common Beech *Fagus sylvatica*	14	1	840	N 4 E 6 S 5 W 4	6 4 6 8	SM	A: 319.2 R: 10.07	Good	C: Good S: Fair B: Good	Twin-stemmed from 0.5m. Union too tight to measure individual stems, diameter measured below union flare, ribs of adaptive growth to union. Minor deadwood throughout. Asymmetric crown due to adjacent companion trees.	**B.1.2** 20+ yrs
T12										Estimated Measurements	
Common Beech *Fagus sylvatica*	11	1	500	N 5 E 5 S 4 W 4	5 5 4 5	SM	A: 113.1 R: 6	Good	C: Good S: Ivy B: Not visible	Off site boundary tree, ivy-clad from base to 9m.	**B.1.2** 20+ yrs
T13										Estimated Measurements	
Corsican Pine *Pinus nigra var.maritima*	10	1	700	N 1 E 4 S 5 W 3	10 9 8 9	SM	A: 221.7 R: 8.4	Fair	C: Fair S: Good B: Good	Asymmetric crown due to lost top at 10m and adjacent companion trees.	**C.1.2** 10+ yrs
T14											
Corsican Pine *Pinus nigra var.maritima*	11	1	400	N 0.5 E 3 S 4 W 2	10 9 8 10	SM	A: 72.4 R: 4.8	Good	C: Good S: Good B: Good	Asymmetric crown due to adjacent companion trees.	**C.1.2** 10+ yrs
T15											
Common Beech *Fagus sylvatica*	11	1	600	N 1.5 E 3 S 4 W 10	9 10 8 5	SM	A: 162.9 R: 7.2	Good	C: Good S: Good B: Good	Asymmetric crown due to adjacent companion trees. Historic pruning wounds to stem to south at 2m and to northwest at 3m, almost fully occluded.	**B.1.2** 20+ yrs
T16											
Common Beech *Fagus sylvatica*	11	1	590	N 4 E 1.5 S 3 W 6	9 10 8 5	SM	A: 157.5 R: 7.08	Good	C: Good S: Good B: Good	Asymmetric crown due to adjacent companion trees. Girdling root to buttress root to west..	**B.1.2** 20+ yrs

Age Classifications: N Newly planted; Y Young; SM Semi-mature; EM Early Mature; M Mature; OM Over Mature

Condition: C Crown; S Stem; B Basal area

Stems: Ø Diameter; (Eq) Equivalent stem diameter using BS5837:2012 definition

ERC: Estimated Remaining Contribution

Tree and Tag No Species	Hght (m)	Stems No	Stems Ø (mm)	Crown Spread (m)	Crown Clear (m)	Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
T17										Estimated Measurements	
Corsican Pine *Pinus nigra var.maritima*	12	1	400	N 1 E 1 S 4 W 3	10 9 9 10	SM	A: 72.4 R: 4.8	Good	C: Good S: Good B: Good	Asymmetric crown due to adjacent companion trees.	C.1.2 10+ yrs
T18											
Common Horse Chestnut *Aesculus hippocastanum*	11	1	730	N 3 E 6 S 6 W 2	3 2 3 4	SM	A: 241.1 R: 8.76	Poor	C: Fair S: Poor B: Poor	Fell :: Fell to ground level Open cavity from base to west to 2.5m with helical crack extending to 8m on western codominant stem, fungal fruiting bodies of Kretzschmaria deusta.	U <10 yrs
T19										Estimated Measurements	
Common Hornbeam *Carpinus betulus*	10	1	520	N 7 E 4 S 3 W 3	2 2 5 5	SM	A: 122.3 R: 6.23	Good	C: Good S: Good B: Good	Off site tree, ivy in crown. Stem lean to east of 15 degrees from upright.	B.1.2 20+ yrs
T20											
Maple *Acer sp.*	12	1	420	N 2 E 3 S 3 W 3	8 9 7 6	SM	A: 79.8 R: 5.03	Good	C: Good S: Good B: Good	No significant features.	B.1.2 20+ yrs
T21											
Corsican Pine *Pinus nigra var.maritima*	20	1	740	N 4 E 4 S 5 W 4	10 9 8 9	EM	A: 247.8 R: 8.88	Good	C: Good S: Good B: Good	Stem lean to south of 10 degrees from upright. Asymmetric crown due to companion tree since removed.	B.1.2 20+ yrs
T22											
Common Horse Chestnut *Aesculus hippocastanum*	12	1	640	N 6 E 5 S 5 W 5	6 3 3 7	SM	A: 185.3 R: 7.68	Good	C: Good S: Good B: Good	Pronounced buttress roots.	B.1.2 20+ yrs

Age Classifications: N Newly planted; Y Young; SM Semi-mature; EM Early Mature; M Mature; OM Over Mature

Condition: C Crown; S Stem; B Basal area

Stems: Ø Diameter; (Eq) Equivalent stem diameter using BS5837:2012 definition

ERC: Estimated Remaining Contribution

Tree and Tag No Species	Hght (m)	Stems No	Stems Ø (mm)	Crown Spread (m)	Crown Clear (m)	Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
T23											
Red Oak *Quercus rubra*	20	1	640	N 7 E 3 S 5 W 10	9 7 8 8	SM	A: 185.3 R: 7.68	Fair	C: Good S: Fair B: Fair	Open cavity to base to west, 1m long and 100mm at widest point. Occlusion has taken place but then died leaving hollow-sounding timber behind. Deadwood at 6m to west 75mm diameter and 6m long. Asymmetric crown due to companion tree since removed.	**C.1.2** 10+ yrs
T24										Estimated Measurements	
Common Hornbeam *Carpinus betulus*	12	2	258 (Eq)	N 3 E 2 S 4 W 3	4 5 4 4	SM	A: 30.1 R: 3.09	Good	C: Good S: Not visible B: Not visible	Off site boundary tree. Closer inspection not accessible.	**C.1.2** 10+ yrs
T25											
Common Lime *Tilia europaea*	20	1	610	N 6 E 4 S 5 W 5	10 13 14 10	SM	A: 168.4 R: 7.32	Good	C: Good S: Good B: Good	No significant features.	**B.1.2** 20+ yrs
T26											
Sycamore *Acer pseudoplatanus*	18	1	330	N 4 E 2 S 3 W 5	6 8 5 4	SM	A: 49.3 R: 3.96	Good	C: Good S: Good B: Good	Asymmetric crown due to adjacent dominant trees.	**B.1.2** 20+ yrs
T27											
Corsican Pine *Pinus nigra var.maritima*	16	1	490	N 1 E 1 S 5 W 2	15 15 13 15	SM	A: 108.6 R: 5.87	Good	C: Fair S: Good B: Good	Asymmetric crown due to adjacent companion trees. Stem lean to northeast of 10 degrees from upright. Stem bulge to south at base. Decayed fruiting bodies of Phaeolus schweinitzii on ground around base.	**C.1.2** 10+ yrs
T28										Estimated Measurements	
Sycamore *Acer pseudoplatanus*	11	2	290 (Eq)	N 1 E 1 S 3 W 2	8 5 4 4	Y	A: 38.1 R: 3.48	Fair	C: Fair S: Fair B: Fair	Twin-stemmed from base with inclusion to union which descends to ground. Suppressed understorey tree.	**C.1** 10+ yrs

Age Classifications: N Newly planted; Y Young; SM Semi-mature; EM Early Mature; M Mature; OM Over Mature

Condition: C Crown; S Stem; B Basal area

Stems: Ø Diameter; (Eq) Equivalent stem diameter using BS5837:2012 definition

ERC: Estimated Remaining Contribution

Tree and Tag No Species	Hght (m)	Stems No	Stems Ø (mm)	Crown Spread (m)	Crown Clear (m)	Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
T29											
Sycamore *Acer pseudoplatanus*	19	1	530	N 5 E 4 S 5 W 4	9 8 9 9	SM	A: 127.1 R: 6.36	Good	C: Good S: Good B: Good	Wounds from barbed wire to lower stem to south.	**B.1** 20+ yrs
T30											
Sycamore *Acer pseudoplatanus*	18	1	440	N 5 E 3 S 4 W 4	7 9 9 6	SM	A: 87.6 R: 5.28	Good	C: Good S: Good B: Good	Wounds from barbed wire and stock fence to lower stem to south.	**B.1** 20+ yrs
T31											
Sycamore *Acer pseudoplatanus*	13	1	200	N 4 E 2 S 3 W 2	4 8 9 10	Y	A: 18.1 R: 2.4	Good	C: Good S: Good B: Good	No significant features.	**C.1** 10+ yrs
T32											
Norway Maple *Acer platanoides*	12	1	300	N 3 E 2 S 3 W 3	2 7 8 4	Y	A: 40.7 R: 3.59	Good	C: Good S: Good B: Good	No significant features.	**C.1** 10+ yrs
T33											
Scots Pine *Pinus sylvestris*	19	1	620	N 4 E 4 S 3 W 2	11 12 11 13	EM	A: 173.9 R: 7.44	Good	C: Good S: Good B: Good	Dead primary limb to north at 10m 75mm diameter and 6m in length. Minor deadwood throughout. Asymmetric crown due to adjacent companion trees.	**B.1.2** 20+ yrs
T34											
Corsican Pine *Pinus nigra var.maritima*	19	1	640	N 2 E 0.5 S 3 W 7	16 17 14 6	SM	A: 185.3 R: 7.68	Good	C: Fair S: Good B: Good	Minor deadwood and stubs throughout. Asymmetric crown due to removal of adjacent companion trees, now exposed to prevailing weather. Pile of stumps and logs 1m from base to south.	**C.1.2** 10+ yrs

Age Classifications: N Newly planted; Y Young; SM Semi-mature; EM Early Mature; M Mature; OM Over Mature

Condition: C Crown; S Stem; B Basal area

Stems: Ø Diameter; (Eq) Equivalent stem diameter using BS5837:2012 definition

ERC: Estimated Remaining Contribution

Tree and Tag No Species	Hght (m)	Stems No	Stems Ø (mm)	Crown Spread (m)	Crown Clear (m)	Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
T35											
Norway Maple *Acer platanoides*	16	1	600	N 3 E 3 S 5 W 9	8 7 3 2	SM	A: 162.9 R: 7.2	Good	C: Good S: Good B: Good	Two northern stems fused at 4m forming natural brace.	**B.1.2** 20+ yrs
T36											
Common Lime *Tilia europaea*	12	1	580	N 6 E 5 S 4 W 5	6 9 8 7	SM	A: 152.2 R: 6.96	Good	C: Good S: Fair B: Good	Stem sway and lean to northeast of 30 degrees from upright. Pronounced tension root to southwest. Dead and loose bark to underside of stem to northeast from base to 3m and 300mm at widest point, with dead timber below. Callus wood has partially occluded edges of dead area.	**C.1.2** 10+ yrs
T37											
Norway Maple *Acer platanoides*	11	1	460	N 8 E 2 S 2 W 5	8 8 7 4	SM	A: 95.7 R: 5.51	Good	C: Good S: Poor B: Good	Historic mechanical damage to base to west with dead timber below to a height of 1.7m, poor occlusion.	**U** <10 yrs
T38											
Myrobalan Plum *Prunus cerasifera*	6	1	400	N 2 E 0 S 3 W 10	1 1 1 1	EM	A: 72.4 R: 4.8	Good	C: Good S: Fair B: Poor	Root plate has shifted and resettled, stem now leans to west at 45 degrees from upright.	**U** <10 yrs

Age Classifications: N Newly planted; Y Young; SM Semi-mature; EM Early Mature; M Mature; OM Over Mature

Condition: C Crown; S Stem; B Basal area

Stems: Ø Diameter; (Eq) Equivalent stem diameter using BS5837:2012 definition

ERC: Estimated Remaining Contribution

Appendix 3: Tree Constraints Plan

Indicative only

LONDON ROAD

Tree Categories

Trees are categorised in accordance with the cascade chart in Table 1 of the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'

Category 'U' - Trees in such condition that they cannot realistically be retained as living trees in context of the current land use for longer than 10 years.
Category 'A' - Trees of high quality with an estimated remaining life expectancy of at least 40 years.
Category 'B' - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.
Category 'C' - Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.

Root Protection Area

In order to avoid damage to the roots or rooting environment of retained trees, the Root Protection Areas (RPAs) should be plotted around each of the category A, B and C trees. This is a minimum area in m² which should be left undisturbed around each retained tree.

The RPA is calculated using the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations.

The calculated RPA is capped to 707m², which is the equivalent to a circle with a radius of 15m. Where there appears to be restrictions to root growth the root protection area is reshaped to more accurately reflect the likely distribution of the roots.

Tree Survey Report

Please refer to Arbtech Consulting Ltd. Tree Survey Report and Tree Schedule for full details on all surveyed trees, hedgerows and major shrub groups.
All trees were surveyed and categorised in accordance with the guidance as set out in the British Standard BS5837:2012 Tree in relation to design, demolition and construction - Recommendations.

We make the following recommendation to ensure that no conditions relating to arboriculture are attached to any planning consent secured: obtain and arboricultural report to include:
a) An arboricultural impact assessment (AIA);
b) An arboricultural method statement (AMS); and
c) A tree protection plan (TPP).

Rev:	Date:	Notes:
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https://arbtech.co.uk, 01244 661170

Project:
Nately Scures House,
Scures Hill,
Hook,
Hants,
RG27 9JR

Client:
Mr A Grant

Drawing:
Tree Constraints Plan

Based on:
20-400/01

Drawing No:	Rev:
Arbtech TCP 01	--

Date:	Scale:	Drawn:
Feb 2022	1:200 @ A0	JAG

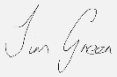
Key:

Tree Nos.:	T01	Tree Canopies:		Trunks:	
RPAs:		Category 'U' trees:		Category 'A' trees:	
Category 'B' trees:		Category 'B' groups:		Category 'C' trees:	

0m 1m 3m 5m 10m 15m 20m

All dimensions should be checked on site. No dimensions are to be scaled from this drawing.
Please notify us of any discrepancies on site. Arbtech Consulting Ltd. cannot be held responsible for inaccuracies in the base drawing in which this plan is based.
This drawing is designed to reflect the principles of the layout or design only, and relates only to the protection of retained trees.
This drawing is not to be read as a definitive part of the engineering or construction designs or method statement. An architect or structural engineer should be contacted over any matters of construction, detailing or specification and for any standards or regulatory requirements relating to proposed structures, hard surfacing or underground services.
This drawing was produced in colour - a monochrome copy should not be relied upon.

9. Document Production Record

Document number	Editor	Signature	Position	Issue number	Date
Arbtech TSR 01	Jim Green		Arboricultural Consultant	01	14/02/22

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