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Orchard Lane / East Molesey

Arboricultural Site Survey - North

November 2022 I A3711

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Arboricultural Survey to BS5837:2012

Lifestyle Residences

Sundial House,
Orchard Ln,
Molesey,
East Molesey,
KT8 0BN

27 January 2022

Chris Wren

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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 19th January 2022 from Lifestyle Residences to attend Sundial House, Orchard Ln, Molesey, East Molesey, KT8 0BN; grid reference, TQ 14601 67353 (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 Tree Constraints Plan.

I am Chris Wren, an arboricultural consultant at Arbtech Consulting Ltd. I undertook the tree survey on 24th January 2022 and subsequently have produced this summary of my findings.

I have ten years of arboricultural industry experience and hold a BSc (Hons) in arboriculture and urban forestry. I also hold a LANTRA award in professional tree inspection. I am a professional member of the Arboricultural Association as well as an associate member of the Institute of Chartered Foresters.

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	3340 - 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 Chris Wren on 24th January 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 28No individual trees, 11No groups of trees, 1No woodlands were surveyed. Details for each of the trees surveyed are provided in the Schedule of Trees (see Appendix 2).

Multiple other small trees 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	Mobile CAD surveying solutions	3340 - 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 care home with buildings on the southern half of the site and the northern half being semi managed greenspace. The site is uniformly level although the land on the western boundary drops down onto a tributary steam of the River Ember. The Site sits between the London Borough of Serbiton and the Island Barn Reservoir.

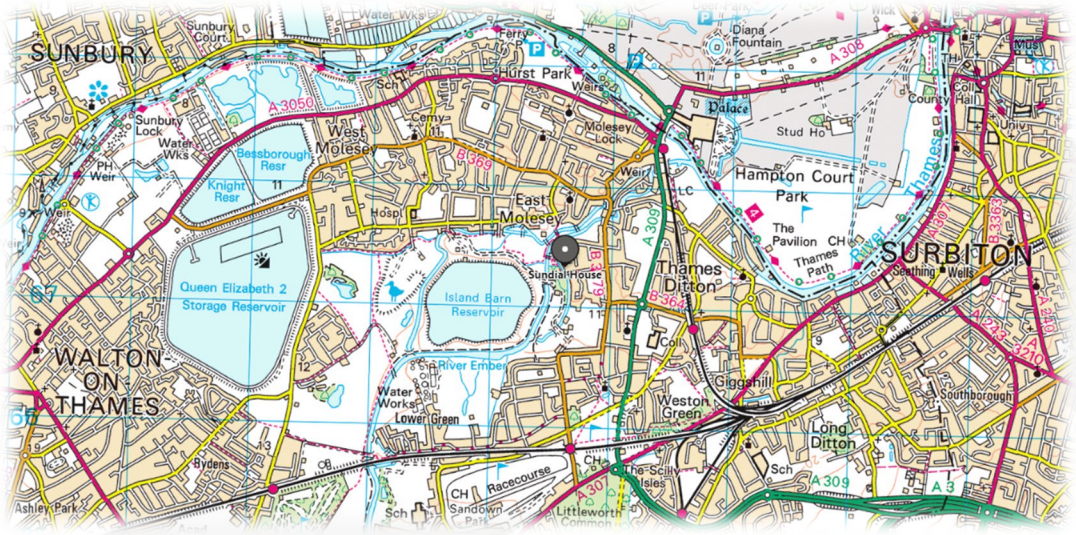


Figure 1: OS Map (Bing Maps)

Figure 2: Aerial Image of site with approximate red line boundary and blue line denoting approximate area surveyed (Google Earth)

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

Currently there is no proposed scheme, however, should one be formulated 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,

Chris Wren BSc (Hons) MArborA

Graduate Arboriculturist

07842313167

Christopherwren@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: 01244 661170

Client: Lifestyle Residences
Project: Sundial House, Orchard Ln, Molesey, East Molesey, KT8 0BN
Survey Date: 24/01/2022
Surveyor: Chris Wren

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
G01											
Willow *Salix sp.*	7	1	290	N 3 E 3 S 3 W 3	1.5 1.5 1.5 1.5	M	A: 38.1 R: 3.48	Good	C: Good S: Fair B: Not visible	Formally planted group of willow spp.. Group uniformly topped at 2m, regrowth up to 6m long and 80mm diameter. Basal area obscured by undergrowth. Dimensions recorded represent approximated average for the group.	C.2 20+ yrs
G02											
Various *See comments for details*	6.5	1	200	N 3 E 3 S 3 W 3	1 2 4 2	EM	A: 18.1 R: 2.4	Good	C: Good S: Good B: Not visible	Group primarily comprising of willow spp.. Basal area obscured by undergrowth. Dimensions recorded represent approximated average for the group.	C.2 40+ yrs
G03										Estimated Measurements	
A Group - -	10	1	350	N 5 E 5 S 5 W 5	1 1 1 1	EM	A: 55.4 R: 4.19	Good	C: Good S: Good B: Not visible	Group primarily comprising of C category willow, wild cherry, oak, hazel and sweet chestnut. Basal area obscured by undergrowth. Dimensions recorded represent approximated average for the group.	B.2 40+ yrs
G04											
Common Oak *Quercus robur*	6	1	150	N 3 E 3 S 3 W 3	1 1 1 1	EM	A: 10.2 R: 1.8	Good	C: Good S: Good B: Good	Group of three trees. Dimensions recorded represent approximated average for the group.	C.2 40+ 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 Contributio

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
G05											
Various *See comments for details*	12	1	510	N 5 E 4 S 6 W 5	2 2 2 2	M	A: 117.7 R: 6.12	Good	C: Good S: Good B: Not visible	Group primarily comprising of silver birch, oak and goat willow. Basal area obscured by undergrowth. Dimensions recorded represent the largest measurement in each category.	**B.2** 40+ yrs
G06										Estimated Measurements	
Various *See comments for details*	12	1	510	N 5 E 5 S 5 W 5	2 2 2 2	M	A: 117.7 R: 6.12	Good	C: Good S: Not visible B: Not visible	Boundary/off site group. Locations and dimensions estimated due to lack of physical access. Group primarily comprising of ash. Stems and basal area obscured by undergrowth and canopy. Dimensions recorded represent approximated average for the group.	**B.2** 40+ yrs
G07											
Sycamore *Acer pseudoplatanus*	11	1	320	N 5 E 5 S 5 W 4	2 2 2 2	M	A: 46.3 R: 3.83	Good	C: Good S: Good B: Not visible	Basal area obscured by undergrowth. Dimensions recorded represent the largest measurement in each category.	**B.2** 40+ yrs
G08										Estimated Measurements	
Various *See comments for details*	8	1	280	N 5 E 5 S 5 W 5	2 2 2 2	M	A: 35.5 R: 3.36	Good	C: Good S: Good B: Good	Off site group primarily comprising of oak. Dimensions recorded represent approximated average for the group.	**B.2** 40+ yrs
G09											
Various *See comments for details*	7	1	100	N 3 E 3 S 3 W 3	2 2 2 2	EM	A: 4.5 R: 1.19	Good	C: Good S: Not visible B: Not visible	Group primarily comprising of oak, ash and hawthorn. Stems and basal area obscured by canopy and undergrowth. Locations estimated due to lack of physical access. Dimensions recorded represent approximated average for the group.	**C.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 Contributio

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
G10											
A Group - -	4	1	150	N 2 E 2 S 2 W 2	1 1 1 1	EM	A: 10.2 R: 1.8	Good	C: Good S: Good B: Good	Group primarily comprising of oak. Dimensions recorded represent approximated average for the group.	C.2 40+ yrs
G11											
Various *See comments for details*	5	1	250	N 3 E 3 S 3 W 3	2 2 2 2	M	A: 28.3 R: 3	Good	C: Good S: Good B: Good	Group primarily comprising of apple and plum. Dimensions recorded represent approximated average for the group.	C.2 20+ yrs
T01										Estimated Measurements	
Common Ash *Fraxinus excelsior*	9	1	310	N 3 E 2 S 2 W 2	3 3 4 4	EM	A: 43.5 R: 3.72	Good	C: Good S: Not visible B: Not visible	Boundary tree. Lower 3m of stem and basal area obscured by ivy.	C.1 10+ yrs
T02										Estimated Measurements	
Goat Willow *Salix caprea*	6	3	258 (Eq)	N 4 E 3 S 3 W 5	2 2 4 1	M	A: 30.1 R: 3.09	Good	C: Good S: Not visible B: Not visible	Off site tree. Lower 2m of stem and basal area obscured by 2m boundary fence.	B.1 20+ yrs
T03										Estimated Measurements	
Common Holly *Ilex aquifolium*	5	1	180	N 1 E 1.5 S 1.5 W 1.5	2 2 2 1	M	A: 14.7 R: 2.16	Good	C: Good S: Not visible B: Not visible	Off site tree. Stem and basal area obscured by crown and 2m boundary fence.	C.1 20+ yrs
T04										Estimated Measurements	
Lawson Cypress *Chamaecyparis lawsoniana*	10	2	382 (Eq)	N 3 E 3 S 2 W 2	3 3 3 2	M	A: 66.1 R: 4.58	Good	C: Good S: Not visible B: Good	Off site tree. Stem obscured by crown. Stem bifurcates at ground level, union included.	B.1 20+ yrs

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

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
T05										Estimated Measurements	
Sycamore *Acer pseudoplatanus*	11	2	502 (Eq)	N 6 E 4 S 4 W 5	4 4 4 4	M	A: 114.1 R: 6.02	Good	C: Good S: Good B: Not visible	Off site tree. Lower 2m of stem, stem union and basal area obscured by 2m boundary fence.	**B.1** 20+ yrs
T06										Estimated Measurements	
Common Ash *Fraxinus excelsior*	11	1	550	N 6 E 6 S 6 W 6	5 5 5 5	M	A: 136.9 R: 6.6	Good	C: Good S: Fair B: Not visible	Off site tree. Crown historically topped and lopped to 1.5m within current dimensions. Regrowth up to 5m long and 70mm diameter. Wounds up to 90mm diameter with no callus wood visible. Major deadwood (>75mm diameter and/or longer than 2m) throughout crown. Lower 2m of stem and basal area obscured by undergrowth.	**B.1** 20+ yrs
T07										Estimated Measurements	
Common Oak *Quercus robur*	10	3	708 (Eq)	N 3 E 6 S 6 W 6	4 2 3 5	M	A: 226.7 R: 8.49	Good	C: Good S: Good B: Not visible	Off site tree. Stem diverges at 1.5m, unions included. Lower 1.4m of stem and basal area obscured by undergrowth.	**B.1** 40+ yrs
T08											
Common Oak *Quercus robur*	11	1	550	N 6 E 6 S 6 W 6	2 0 0 0	M	A: 136.9 R: 6.6	Good	C: Good S: Good B: Good	No significant features noted at time of survey.	**B.1** 40+ yrs
T09											
Turkey Oak *Quercus cerris*	10	1	240	N 5 E 5 S 5 W 5	1 0 0 0	M	A: 26.1 R: 2.88	Good	C: Good S: Good B: Good	No significant features noted at time of survey.	**B.1** 40+ 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 Contributio

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
T10											
Common Oak *Quercus robur*	5	1	100	N 2 E 3 S 2 W 3	1 1 1 1	M	A: 4.5 R: 1.19	Good	C: Good S: Good B: Good	No significant features noted at time of survey.	C.1 40+ yrs
T11											
Turkey Oak *Quercus cerris*	12	2	448 (Eq)	N 6 E 6 S 6 W 6	2 0 0 0	M	A: 90.7 R: 5.37	Good	C: Good S: Good B: Good	Stem bifurcates at 1m, union included.	B.1 40+ yrs
T12										Estimated Measurements	
Common Oak *Quercus robur*	8	1	160	N 3 E 3 S 3 W 3	2 2 2 2	EM	A: 11.6 R: 1.92	Good	C: Good S: Good B: Not visible	Basal area obscured by undergrowth.	B.1 40+ yrs
T13										Estimated Measurements	
Common Oak *Quercus robur*	8	1	220	N 5 E 5 S 5 W 5	3 3 2 3	M	A: 21.9 R: 2.64	Good	C: Good S: Good B: Not visible	Off site tree. Lower 2m of stem and basal area obscured by undergrowth.	B.1 40+ yrs
T14											
Common Oak *Quercus robur*	13	2	375 (Eq)	N 5 E 5 S 5 W 5	2 2 2 2	M	A: 63.6 R: 4.49	Good	C: Good S: Good B: Not visible	Lower 1m of stem, stem union and basal area obscured by undergrowth.	B.1 40+ yrs
T15											
Sycamore *Acer pseudoplatanus*	16	5	988 (Eq)	N 6 E 6 S 6 W 6	2 2 2 2	M	A: 441.8 R: 11.85	Good	C: Good S: Fair B: Fair	Major deadwood (>75mm diameter and/or longer than 2m) throughout crown. Stems diverge at ground level, unions frequently compressed with no natural braces visible. Ivy on largest stem, to apex, obscuring visual inspection.	B.1 20+ yrs

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

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
T16											
Sweet Chestnut *Castanea sativa*	7	1	160	N 3 E 3 S 3 W 3	2 2 2 2	EM	A: 11.6 R: 1.92	Good	C: Good S: Good B: Good	No significant features noted at time of survey.	**B.1** 40+ yrs
T17											
Sycamore *Acer pseudoplatanus*	9	1	280	N 3 E 3 S 3 W 3	2 2 2 2	EM	A: 35.5 R: 3.36	Decline	C: Fair S: Poor B: Not visible	Extensive squirrel damage between 3m and apex. Major deadwood (>75mm diameter and/or longer than 2m) throughout crown. Lower 2m of stem and basal area obscured by undergrowth.	**U** <10 yrs
T18											
Sycamore *Acer pseudoplatanus*	7	1	180	N 3 E 3 S 2 W 3	2 2 2 2	EM	A: 14.7 R: 2.16	Good	C: Good S: Not visible B: Not visible	Lower 2m of stem and basal area obscured by undergrowth. Location estimated due to lack of physical access.	**C.1** 20+ yrs
T19											
Cherry *Prunus sp.*	8	1	460	N 4 E 4 S 4 W 4	2 2 2 2	M	A: 95.7 R: 5.51	Good	C: Good S: Poor B: Good	Multiple physical wounds and woodpecker hole on stem between 1.5m and 4m. Wounds up to 330mm wide and 700mm tall with callus wood to 70mm. Wounds contain entryways to internal cavity. Cavity extent not visible at time of survey but substantial enough to be suitable woodpecker habitat.	**U** <10 yrs
T20											
Gum *Eucalyptus sp.*	10	1	500	N 5.5 E 5 S 1 W 3	5 4 6 5	SM	A: 113.1 R: 6	Good	C: Fair S: Good B: Good	Historically topped at 8m, epicormic regrowth 30mm diameter and 2m in length. Stem lean of 30 degrees from upright to north East.	**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 Contributio

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
T21										Estimated Measurements	
Gum *Eucalyptus sp.*	16	2	651 (Eq)	N 11 E 10 S 3.5 W 4	14 5 2.5 3	SM	A: 191.6 R: 7.8	Good	C: Good S: Good B: Good	Bifurcation at 0.5m into codominant stems. Historicaly topped at 7m, with regrowth of 150mm diameter and 6m in length. Stems have twisted from base in order to grow phototrophically.	**B.1.2** 20+ yrs
T22											
Gum *Eucalyptus sp.*	19.5	1	720	N 10.5 E 4 S 7 W 4.5	10 4 0.5 5	SM	A: 234.5 R: 8.63	Fair	C: Good S: Good B: Poor	Two Ganoderma brackets present on base, one to east another to south; sounding out with mallet highlights pockets of decay between buttresses. Asymmetrical crown due to neighbouring trees.	**U.1.2** <10 yrs
T23											
Gum *Eucalyptus sp.*	23	1	930	N 11 E 7 S 7 W 4	2 1.5 2 1	SM	A: 391.3 R: 11.16	Good	C: Good S: Ivy B: Good	Asymmetrical crown due to neighbouring trees. Small volume of dead wood on eastern side.	**B.1.2** 20+ yrs
T24											
Leyland Cypress *X Cupressocyparis leylandii*	18	1	950	N 4 E 4 S 6 W 5	2 0.5 1 1	EM	A: 408.3 R: 11.4	Good	C: Good S: Good B: Fair	See Comment :: See Comment Base not fully visible due to debris. Multi stemed (>10 stems) from 2m. Three failed and hung up stems on south west side, we recommend removing these asap.	**B.1.2** 20+ yrs
T25											
Sweet Chestnut *Castanea sativa*	13	1	530	N 5 E 6 S 5 W 2	7 2 3 3	SM	A: 127.1 R: 6.36	Good	C: Good S: Good B: Good	Asymmetrical canopy due to neighbouring trees. Compressed union at 7m. Multiple dead limbs, 40mm in diameter, 1m in length.	**B.1.2** 20+ yrs
T26											
Sweet Chestnut *Castanea sativa*	8	1	500	N 6 E 4.5 S 6 W 4	1.5 1.5 2 2	SM	A: 113.1 R: 6	Good	C: Good S: Good B: Good	Surface roots visible. Asymmetrical crown due to neighbouring trees.	**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 Contributio

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
T27													
Wild Cherry *Prunus avium*	9	1	570		N E S W	5.5 5 5 6	2 2 2 2.5	SM	A: 147 R: 6.84	Fair	C: Good S: Fair B: Good	Stem diverts into 3 codominant stems at 1.5m, a fourth limb is located in the stem union which has been removed leaving a stump 450mm in length and 100mm in diameter. A second limb has historically been torn out from base the south side leaving an open wound of 250mm diameter; wound has visible necrotic tissue extending down into main stem. Exudate visible at stem union extending down to base of tree. Fungal fruiting body present on base to south, surrounded out with mallet revealing probable decay pocket between buttresses approximately 500mm in length and 200mm wide. Second fruiting body emerging on base to west.	**U.1.2** <10 yrs
T28													
Sycamore *Acer pseudoplatanus*	13	6	563	(Eq)	N E S W	7 7 6 7	3 4 5.5 3	SM	A: 143.6 R: 6.76	Good	C: Good S: Not visible B: Good	Multi stems from base. Some unions compressed, some occluded. Ivy on stem to apex.	**B.1.2** 20+ yrs
W01												Estimated Measurements	
Various *See comments for details*	20	1	940		N E S W	7 7 7 7	2 2 2 2	M	A: 399.8 R: 11.28	Good	C: Good S: Ivy B: Not visible	Woodland primarily comprising of sycamore, wild cherry, and alder. Major deadwood throughout canopy. Ivy present throughout woodland, frequently to apex. Dimensions recorded represent approximated average for the woodland.	**A.2** 40+ yrs

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

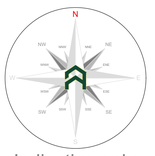
Condition: C Crown; S Stem; B Basal area

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

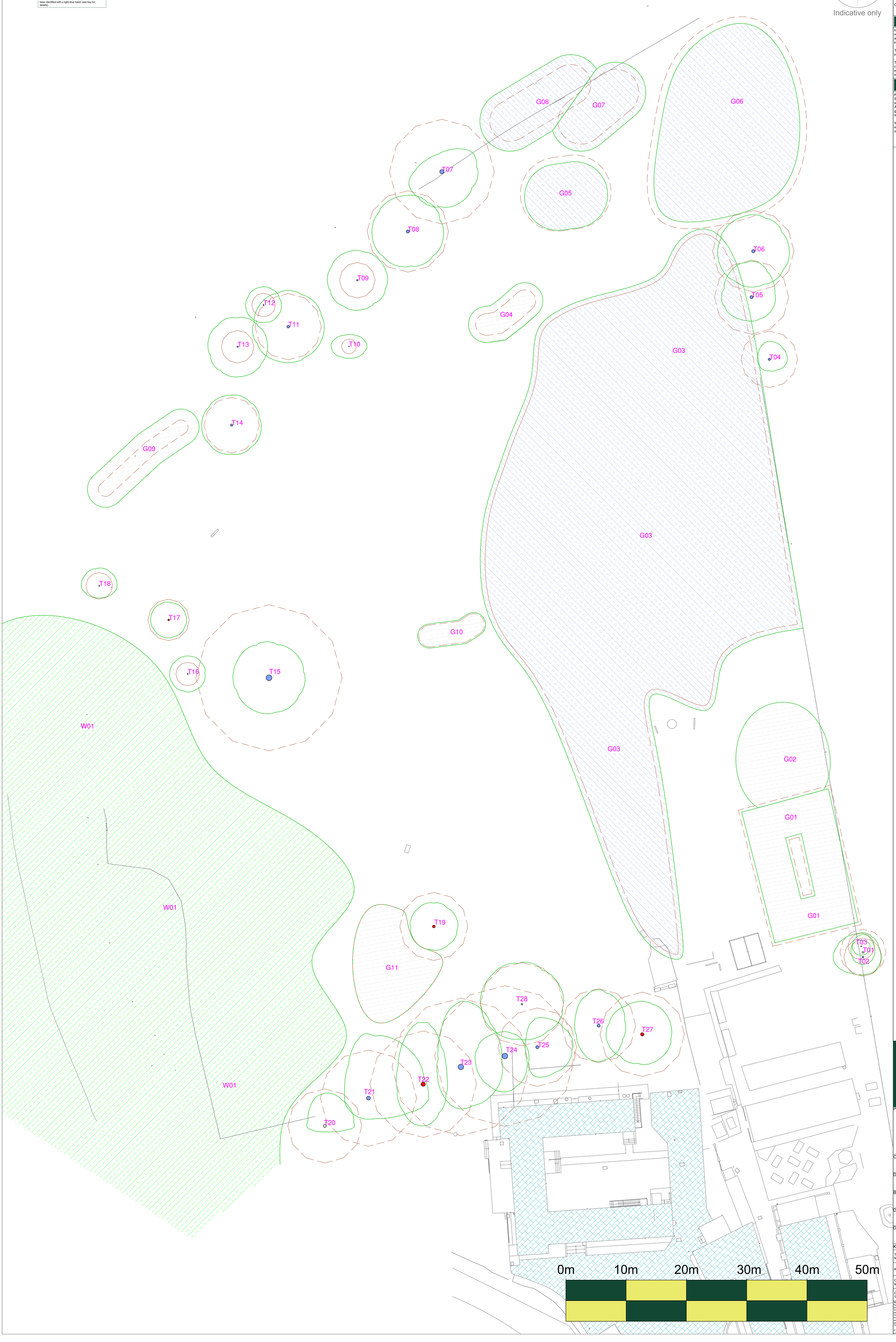
ERC: Estimated Remaining Contributio

Appendix 3: Tree Constraints Plan

Note: Existing dwelling(s), retaining wall(s), road(s) and structures are likely to be partial or complete root barriers. We currently do not have enough information with regards to the existing and surrounding properties and structures, foundations, soil types etc. to definitively determine the root barriers. Site features that are significant enough to be considered barriers to root development, irrespective of proximity to trees, have been identified with a light blue hatch (see key for details).



Indicative only



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).

arbtech
Unit 3, Well House Barns, Chester, CH4 0DH
https://arbtech.co.uk, 01244 661170

Project:
Sundial House,
Orchard Ln,
Molesey,
East Molesey,
KT8 0BN

Client:
Lifestyle Residences

Drawing:
Tree Constraints Plan

Based on:
3340-01

Drawing No:	Rev:
Arbtech TCP 01	

Date:	Scale:	Drawn:
Jan 2022	1:200 @ A0	CMW

Key:

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

All dimensions should be checked on site. No dimensions are to be scaled from this drawing.
Please notify us of any discrepancies found. 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	Chris Wren		Graduate Arboriculturist	01	27/01/22

Limitations

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