ST MICHAELS CONVENT
HAM COMMON
HAM

TREE REPORT

(Tree Survey and
Constraint Advice)

Prepared by
ACD
ENVIRONMENTAL

for

Beechcroft Developments

ACD
ENVIRONMENTAL

Ecology
Archaeology
Arboriculture
Landscape Architecture

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1. EXECUTIVE SUMMARY

1.1. This report provides survey information about the trees on the site at St Michaels Convent, 56 Ham Common, Ham, in accordance with the recommendations of BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. This is to identify the quality and value of existing trees on site, allowing decisions to be made as to the retention or removal of trees in the case of any development.

1.2. **This report has been revised in August 2016 following a site visit to update the tree survey. It is confirmed that the survey data in this report is valid and current.**

1.3. The subject trees have been categorised as follows:

BS Category	Number of individual trees	Tree Groups
U	14	0
A	6	0
B	36	0
C	55	6

1.4. A total of 110 individual trees with stem diameters of 75mm and above at 1.5m were surveyed and recorded. In addition six groups were surveyed and recorded.

1.5. Trees of A and B category should be considered as constraints to development and every attempt should be made to incorporate them into any proposed development design. Trees of a C and U category will not usually be retained where they would impose a significant constraint to development. U category trees are often in such a condition that they will be lost within 10 years, and may be removed as good arboricultural practice.

1.6. It is recommended that any development layouts are drafted in close collaboration with ACD to ensure that any trees which are highlighted for retention can be realistically integrated into the design.

2. INTRODUCTION

2.1. ACD were instructed by Beechcroft Developments, in August 2013, to survey and categorize the trees at St Michaels Convent, 56 Ham Common, Ham, TW10 7JH in accordance with BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. **ACD were further instructed in August 2016 by Beechcroft Developments to visit the site to update the tree survey. It is confirmed that the survey data in this report is valid and current.**

2.2. The survey includes all trees with a stem diameter greater than 75mm stem diameter at a height of 1.5m that are on site or close enough to pose a potential constraint to development.

2.3. The trees on site have been assessed for their quality and benefits within the context of proposed development. The quality of each tree, or group of trees has been recorded by allocating it to one of four categories. A Tree Reference Plan is provided in order to assist with scheme design.

2.4. The survey was carried out to assess the trees on site for their quality and benefits within the context of proposed development. The quality of each tree, or group of trees has been recorded by allocating it to one of four categories, where:

- Trees of A and B category should be considered as constraints to development and every attempt should be made to incorporate them into any proposed development design.
- C category trees will not usually be retained where they would impose a significant constraint to development, but should be retained where there is no reason for their removal.
- U category trees are in such a condition that they are unlikely to contribute beyond 10 years, and may be removed as good arboricultural practice.

2.5. This report provides the data and advice outlined in BS5837:2012 only. It must not be substituted for a tree risk assessment. Detailed tree inspection including decay mapping, aerial inspection, soil analysis, etc. was not undertaken. If further detailed inspection is deemed necessary then it will be made clear within this report.

2.6. The Tree Reference Plan was based on the supplied topographical ground survey by Callidus Surveys Job Number 13057 dated 19.09.2013.

2.7. According to a search of the London Borough of Richmond upon Thames website the site is within a Conservation Area and T1 is protected by TPO reference T0166 T1.

2.8. The controlling authority is London Borough of Richmond upon Thames, who can be contacted at: 44 York Street, Twickenham, TW1 3BZ.

2.9. Any questions relating to the content of this report should be directed in the first instance to: ACD Environmental, Courtyard House, Mill Lane, Godalming, Surrey GU7 1EY, 01483 425 714/07796 832 490, quoting the site address and report reference number.

3. SCOPE AND METHOD OF SURVEY

3.1. The survey has been carried out in accordance with BS5837:2012 Trees in Relation to design, demolition and construction - Recommendations and the trees are assessed objectively and without reference to any site layout proposals. Categories are based on each tree's health and condition, together with an assessment of its life expectancy if its surroundings were to be unchanged. An explanation of the categories can be found at appendix 1.

3.2. No discussions took place between the surveyor and any other party.

3.3. The reference numbers of surveyed trees and groups of trees are shown on the Tree Reference Plan, which is based on the supplied survey drawing and appended to this report. The prefix G has been used to indicate a group of trees, and H for hedges. Stem locations within groups may be estimated, and indicative of canopy only.

3.4. The tree survey was carried out from ground level only.

3.5. Where trees are located on neighbouring land an estimated appraisal has been made of their quality and dimensions.

3.6. Where stems or branches are obscured by ivy or other materials a full assessment of those parts will not be possible.

3.7. Tree heights were measured with a clinometer, or estimated in relation to those measured with the clinometer. If individual tree heights are of particular concern, for example in shading calculations, then they are measured using a clinometer.

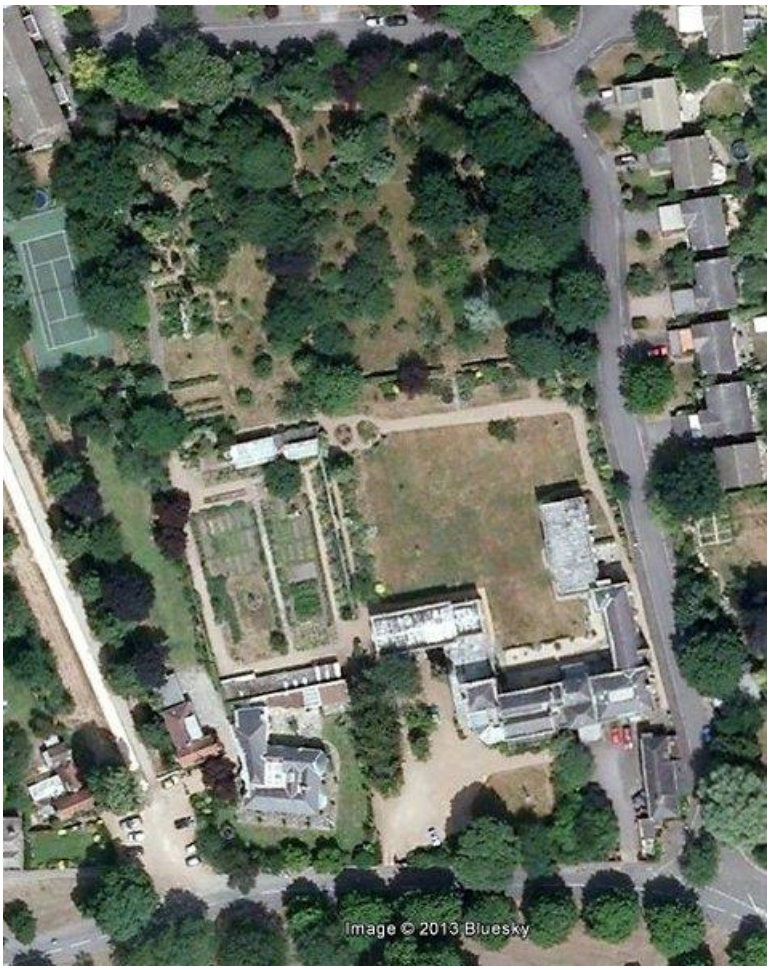
3.8. Trunk diameters were measured or, where inaccessible, estimated. Single stemmed trees are measured at 1.5m from ground level. Multiple stemmed trees are measured according to section 4.6 of BS5837:2012. For groups of trees the diameter may be an estimated average or a maximum.

3.9. Tree canopies, where markedly asymmetrical, were measured (or estimated by pacing) in four directions using a laser measure. Symmetrical canopies are measured in one direction only, with dimensions in the remaining directions assumed to be similar. The canopy of tree groups will be indicated by measuring the maximum canopy radius for each compass point (more complicated groups will have further notes taken and an accurate representation will be shown on the plan).

4. DISCUSSION

4.1. For individual details of the subject trees see the survey at appendix 2.

4.2. The site is a Convent, with large gardens, and gravel driveway parking area at the site frontage to the south. Access is from Ham Common. The rear garden is formally landscaped and well maintained. An overview of the site is given in the aerial image below.



Overview of site included in survey

4.3. No soil assessment was carried out at the time of survey. According to the National Soil Resources Institute online mapping service at http://www.landis.org.uk/soilscapes the soil on site is expected to be:

4.4. A total of 110 individual trees with stem diameters of 75mm and above at 1.5m were surveyed and recorded. In addition six groups were surveyed and recorded.

4.5. Six of the trees included in the survey are A category. These are all trees with high individual quality and landscape value.

4.6. 36 individual trees on the site are B category. B category trees are those that might be included in the high category, but are downgraded because of impaired condition (e.g.

presence of significant though remediable defects, including unsympathetic past management and minor storm damage). Or these are trees present in groups which have value as landscape features.

4.7. There are 55 individual trees and 5 groups of trees on the site which are C category. These are C category either due to their low inherent value due to low overall physiological vigour, or structural faults, or their diameter is less than 150mm at 1.5m above ground level. Many of the C category trees on the site are small ornamental deciduous or coniferous specimens, together with assorted fruit trees, which are commonly found in gardens. Whilst these may have cultural and historical value in terms of their current garden context, they are low value in terms of their wider landscape significance. As such they should not be considered any constraint to development. They are not of any particular arboricultural or visual merit and have therefore been allocated category C.

4.8. There are fourteen U category trees on the site which could be removed as good arboricultural practice as part of any development.

4.9. The below ground constraints posed by the trees are represented by Root Protection Areas (RPAs) and shown on the Tree Reference Plan. The RPA of a tree is calculated as advised by BS5837:2012. For a tree growing in an apparently unconstrained rooting environment a circular RPA is shown. When constraints to root growth appear to be present the RPA is adjusted to reflect the likely root growth pattern. In the case of the trees on the southern boundary it is unlikely that there is root growth under the main highway beyond the retaining wall. The RPA of T1 has been adjusted in shape, but not reduced in total area to reflect this.

Site as viewed from Ham Common

Group of Yew Trees T11 - T18

View of northwest of rear garden north

View of north east of rear garden. T66 in foreground to right

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. Trees of A and B category should be considered as constraints to development and every attempt should be made to incorporate them into any proposed development design. Trees of a C category will not usually be retained where they would impose a significant constraint to development. U category trees are in such a condition that they will be lost within 10 years, and may be removed as good arboricultural practice.

5.2. It is recommended that any development layouts are drafted in close collaboration with ACD to ensure that any trees which are highlighted for retention can be realistically integrated into the design.

5.3. BS5837:2012 Section 5.1.1 states that the constraints imposed by trees, both above and below ground should inform the site layout design, although it is recognized that the competing needs of development mean that trees are only one factor requiring consideration. Certain trees are of such importance and sensitivity as to be major constraints on development or to justify its substantial modification. However, care should be taken to avoid misplaced tree retention; attempts to retain too many or unsuitable trees on a site can result in excessive pressure on the trees during demolition or construction work, or post-completion demands for their removal.

5.4. Trees can be a development constraint both below and above the ground. In terms of below ground constraints, BS5837:2012 RPAs indicate an area that contains sufficient rooting volume to ensure survival of the tree. This area of ground should be taken into account with the site layout, such that it can left undisturbed during demolition and construction by prohibiting activity from the area using protective fencing or ground protection.

5.5. In terms of the above ground factors, tree constraints presented by the canopy and the psychological effects of tree proximity to dwellings (such as shading, perceived threat of tree failure, etc.) must also be considered during scheme design. This will involve optimising site layout and building room use to avoid the end-user becoming resentful of the trees, and seeking excessive pruning or even tree removal. This is especially a consideration with trees located on southern boundaries.

5.6. Preferably, conflicts between proposed structures and RPAs and tree canopies should be ‘designed out’ through the careful positioning of any built form. It is therefore advisable that any development layouts are drafted in close collaboration with ACD to ensure that any trees which are highlighted for retention can be realistically integrated into the design.

5.7. When a final layout is agreed, an Arboricultural Impact Assessment (AIA) should be completed to discuss arboricultural issues within the scheme, and demonstrate to the Planning Authority the viability of the layout.

5.8. Surgery may be required in order to allow trees to be retained close to structures, to allow access for construction or future site traffic, or in the interests of the future health and safety of the trees and users of the site. Detailed recommendations for surgery can be provided once a final site layout is agreed and it is determined which trees are to be

retained. All surgery should comply with BS3998:2010 Tree Work or more recently accepted arboricultural good practice.

5.9. Before any works start on site, including demolition, an Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP) should be submitted, approved and implemented. There must be no changes in levels, service routing, machine activity, storage of materials or site hut positioning within the Root Protection Areas (RPAs) and the protective fencing must remain in position for the duration of the construction process.

5.10. Attention is drawn to the provisions of the Occupiers Liability Act (1957 and 1984). A land owner has a duty of care to ensure that reasonable steps are taken to ensure the safety of others entering their land. There is a special responsibility to ensure the safety of children, who may be unaware of danger. Reasonably frequent inspections of trees with potential to cause harm, by a competent person, together with implementation of any recommendations, should ensure compliance with the legislation regarding tree safety.

5.11. Notice must also be taken that it is an offence under the Wildlife and Countryside Act and Countryside and Rights of Way Act to disturb a nesting bird or roosting/breeding bat. Further advice, particularly if bats are discovered during tree work, may be obtained from ACD's Ecologist, if required.

Tom Grayshaw BA (Hons) Tech Cert (ArborA)
Arboriculturist
26 September 2013

Revised 31st August 2016

APPENDIX 1: SUMMARY OF CATEGORIES BS5837:2012

BS5837:2012 Table 1 -**Cascade chart for tree quality assessment**

Category and definition	**Criteria (including subcategories where appropriate)**		
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 a 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 it might be desirable to preserve; see **4.5.7.***		
	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 dominant 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)
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 remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for 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
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	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 benefits	Trees with no material conservation or other cultural value

APPENDIX 2: TREE SURVEY SCHEDULE

No.	Name	Ht (crown)	Dia (stems)	Canopy spread N | E | S | W				Life stage	ERC	Comments & preliminary recommendations	BS Cat
T1	Holm Oak (Quercus ilex)	18 (4)	910	7	7.5	7.5	6	M	40+	High individual quality and landscape value as part of boundary frontage.	A2
T2	Wild Cherry (Prunus avium)	9 (2)	300 (1)	4	3.5	3.5	3.5	EM	10+	Some value as part of boundary screening but not a development constraint.	C2
T3	Judas Tree (Cercis siliquastrum)	8 (4)	250,180,180,150 (4)	5	5.5	5	5	EM	10+	Multi stem from ground level. Ornamental value but sparse crown and low landscape significance on interior of site.	C2
T4	Holly (Ilex aquifolium)	8 (2)	280 (1)	3	2	2	2	EM	20+	Limited rooting area. Growing very close to wall. Variegated.	C2
T5	Wild Cherry (Prunus avium)	6 (3)	200 (1)	3	3	3	3	SM	20+	Stem position estimated as not indicated on topographical survey.	C2
T6	Hazel (Corylus avellana)	6 (3)	200 (0)	4	4	4	4	SM	20+	Stem position estimated as not indicated on topographical survey.	C2
T7	Lawson Cypress (Chamaecyparis lawsoniana)	13 (2)	650 (2)	3	2.5	2.5	2.5	M	10+	Two fused stems. Fast growing conifer planted as ornamental. Growing in close proximity to building	C2
T8	Magnolia (Magnolia)	5 (0.5)	150 (1)	3	2.5	3.5	2.5	Y	10+	Small ornamental tree.	C2
T9	Magnolia (Magnolia)	5 (0.5)	100 (1)	2	2	2	2	Y	10+	Small ornamental tree.	C2
T10	Judas Tree (Cercis siliquastrum)	8 (2)	140,140 (2)	3	3	3	3	SM	20+	Small ornamental tree. Spass crown	C2
T11	Yew (Taxus baccata)	8 (4)	300 (1)	3	3	3	3	EM	20+	Sparse upper crown. Lower 3m trimmed to allow for driveway. Untidy.	C2
T11A	Yew (Taxus baccata)	8 (4)	300 (1)	3	3	3	3	EM	<10	Dieback and decay in upper crown. Lower 3m trimmed to allow for driveway.	U
T13	Yew (Taxus baccata)	8 (4)	300 (1)	3	3	3	3	EM	10+	Lower 3m trimmed to allow for driveway.	C2

Notes: Dia (stems): trunk diameter in mm at 1.5m above ground level (number of stems) | **HT (crown):** Tree height (crown clearance) | **Life stage: Y:** Young (obviously planted within the last three years (unless as a heavy or extra-heavy standard)). **SM:** Semi mature (recently planted and yet to attain mature stature; up to 25% of attainable age.). **EM:** Early mature (almost full height, crown still developing and seed bearing; up to 50% of attainable age.). **M:** Mature (full height, crown spread, seed bearing; over 50% of attainable age.). **OM:** Over mature (full size, die-back, small leaf size, poor growth extension.).| **FSB:** First significant branch (& compass bearing) | **ERC:** Expected remaining contribution in years- <10, 10+, 20+, 40+ (assuming that there will be no physical changes to its immediate environment.| **BS Category:** Refer to appendix 1 of this report or BS5837:2012 Table 1 for detailed descriptions.

No.	Name	Ht (crown)	Dia (stems)	Canopy spread N | E | S | W				Life stage	ERC	Comments & preliminary recommendations	BS Cat
T14	Yew (Taxus baccata)	13 (4)	450 (1)	5	5	5	5	M	20+	Lower 3m trimmed to allow for driveway. Stem diameter estimated due to basal growth. Fair condition.	B2
T15	Yew (Taxus baccata)	13 (4)	370 (1)	5	4.5	4.5	4.5	M	<10	Tree is dead	U
T16	Yew (Taxus baccata)	7 (3)	230 (1)	2	2	2	2	EM	10+	Poor crown shape due to competition with adjacent trees.	C2
T17	Yew (Taxus baccata)	14 (3)	300,300,400 (3)	4	4	4	4	M	20+	Triple stem from ground level. Shared canopy with adjacent tree.	B2
T18	Yew (Taxus baccata)	14 (3)	400 (1)	5	4	4	4	M	20+	Triple stem from ground level. Shared canopy with adjacent tree.	B2
T19	Pear (Pyrus)	4 (1)	250 (1)	2	2	2	2	EM	10+	Fruit tree pruned hard.	C2
T20	Apple (Malus)	4.5 (1.5)	530 (MS)	5	5	5	5	M	20+	Fruit tree pruned to keep crown low. Fair tree but limited landscape value on site interior.	B1
T21	Wild Cherry (Prunus avium)	3.5 (2)	330 (1)	3	3	3	3	M	<10	dieback throughout crown with ivy	U
T22	Lawson Cypress (Chamaecyparis lawsoniana)	11 (1)	200,250 (2)	3	3	3	3	EM	20+	Fast growing non native conifer planted as ornamental. Value in current context but limited landscape significance on site interior.	C1
T23	Locust Tree (Robinia pseudoacacia)	15 (2)	510(1)	6	8.5	6	5	M	20+	Landscape value as boundary screening. Uneven crown shape due to competition with off site tree.	B2
T24	Snowy Mespil (Amelanchier lamarckii)	5 (2)	250 (MS)	4	3.5	3.5	3.5	M	20+	Multi stem from ground level. Stem position estimated as not indicated on topographical survey. Landscape value as part of boundary screening.	C2

Notes: Dia (stems): trunk diameter in mm at 1.5m above ground level (number of stems) | **HT (crown):** Tree height (crown clearance) | **Life stage: Y:** Young (obviously planted within the last three years (unless as a heavy or extra-heavy standard)). **SM:** Semi mature (recently planted and yet to attain mature stature; up to 25% of attainable age.). **EM:** Early mature (almost full height, crown still developing and seed bearing; up to 50% of attainable age.). **M:** Mature (full height, crown spread, seed bearing; over 50% of attainable age.). **OM:** Over mature (full size, die-back, small leaf size, poor growth extension.).| **FSB:** First significant branch (& compass bearing) | **ERC:** Expected remaining contribution in years- <10, 10+, 20+, 40+ (assuming that there will be no physical changes to its immediate environment.| **BS Category:** Refer to appendix 1 of this report or BS5837:2012 Table 1 for detailed descriptions.

No.	Name	Ht (crown)	Dia (stems)	Canopy spread N | E | S | W				Life stage	ERC	Comments & preliminary recommendations	BS Cat
T25	Pissardii (Prunus cerasifera)	3 (2)	100 (1)	2	3.5	2	2	Y	40+	Multi stem from ground level. Stem position estimated as not indicated on topographical survey. Young tree. Landscape value as part of boundary screening.	C2
T26	Cherry Laurel (Prunus laurocerasus)	3 (0)	200 (2)	3	2	3	2	M	20+	Canopy extents as per topographical survey. Formally maintained square bush.	C2
T27	Beech (Fagus sylvatica)	11 (2)	410(1)	5	5	5	5	EM	40+	High individual quality in terms of future potential. Landscape value as part of boundary screening. Twin stem from 2m.	B2
T28	Common Oak (Quercus robur)	15 (3)	1200 (1)	9	8	9	8	M	40+	High individual quality and landscape value on boundary. Scattered dead wood in crown consistent with age and species.	A2
T29	Holly (Ilex aquifolium)	10 (2)	290 (1)	4	3.5	3.5	3.5	EM	<10	Damage to base of stem. Poor vigor sparse crown.	U
T30	Holly (Ilex aquifolium)	10 (2)	290 (1)	4	3.5	3.5	3.5	EM	20+	Low vigor sparse crown for age and species.	C2
T31	Holly (Ilex aquifolium)	10 (2)	290 (1)	4	3.5	3.5	3.5	EM	<10	Damage to base of stem. Poor vigor sparse crown. Leaning main stem.	U
T32	Holly (Ilex aquifolium)	9 (2)	200 (1)	1	1	3.5	3.5	EM	<10	Damage to base of stem. Poor vigor sparse crown. Leaning main stem.	U
T33	Holly (Ilex aquifolium)	9 (2)	200,180 (2)	3	3	3	3	EM	20+	Low individual quality but landscape value as boundary screening.	C2
T34	Grey Poplar (Populus canescens)	15 (2)	470(1)	5	3.5	3	4	M	20+	Main stem leans to north. Otherwise landscape value on boundary.	B2
T35	Box Elder (Acer negundo)	14 (5)	530(1)	7	7	7	7	M	20+	Fair tree with landscape value as part of boundary group.	B2
T36	Beech (Fagus sylvatica)	16 (2)	410(1)	4	4	4	4	M	40+	High individual quality and landscape value. Fastigiate variety.	A2

Notes: Dia (stems): trunk diameter in mm at 1.5m above ground level (number of stems) | **HT (crown):** Tree height (crown clearance) | **Life stage: Y:** Young (obviously planted within the last three years (unless as a heavy or extra-heavy standard)). **SM:** Semi mature (recently planted and yet to attain mature stature; up to 25% of attainable age.). **EM:** Early mature (almost full height, crown still developing and seed bearing; up to 50% of attainable age.). **M:** Mature (full height, crown spread, seed bearing; over 50% of attainable age.). **OM:** Over mature (full size, die-back, small leaf size, poor growth extension.).| **FSB:** First significant branch (& compass bearing) | **ERC:** Expected remaining contribution in years- <10, 10+, 20+, 40+ (assuming that there will be no physical changes to its immediate environment.| **BS Category:** Refer to appendix 1 of this report or BS5837:2012 Table 1 for detailed descriptions.

No.	Name	Ht (crown)	Dia (stems)	Canopy spread N | E | S | W				Life stage	ERC	Comments & preliminary recommendations	BS Cat
T37	Locust Tree (Robinia pseudoacacia)	14 (7)	460(1)	5	4.5	4.5	4.5	M	20+	(Check species.) Smaller foliage than Robinia.	B2
T38	Sweet Chestnut (Castanea sativa)	13 (2)	490 (1)	7	6.5	6.5	6.5	EM	40+	Landscape value as part of boundary screening. High future potential in terms of contribution.	A2
T39	Lawson Cypress (Chamaecyparis lawsoniana)	12 (0)	300 (1)	2	2	2	2	M	20+	Fast growing non native conifer planted as ornamental. Some landscape value as part of boundary group.	C2
T40	Lawson Cypress (Chamaecyparis lawsoniana)	12 (0)	300 (1)	2	2	2	2	M	20+	Fast growing non native conifer planted as ornamental. Some landscape value as part of boundary group.	C2
T41	Copper Beech (Fagus sylvatica 'Purpurea')	6 (0.5)	140 (1)	3	3	3	3	Y	40+	Low category due to stem diameter but high individual quality in terms of future potential.	C2
T42	Scots Pine (Pinus sylvestris)	10 (1)	190 (1)	2	2	2.5	2.5	Y	20+		C2
T43	Yew (Taxus baccata Fastigiata)	6 (0)	150 (1)	1	1	1	1	Y	20+		C2
T44	Cedar of Lebanon (Cedrus libani)	14 (2)	470 (1)	5	5	5	5	EM	40+	Fair tree with landscape value as part of boundary screening and good future potential.	B2
T45	Field Maple (Acer campestre)	13 (1)	510 (MS)	4	4	4	4	M	40+	Triple stem from ground level. Landscape value as part of boundary screening.	B2
T46	Pissardii (Prunus cerasifera)	7 (2)	150,200 (2)	3	3	5	3	EM	10+		C2
T47	Beech (Fagus sylvatica)	14 (2)	320 (1)	4	3.5	3.5	3.5	SM	40+	High value in terms of future potential. Current landscape value as part of boundary screening.	B2

Notes: Dia (stems): trunk diameter in mm at 1.5m above ground level (number of stems) | **HT (crown):** Tree height (crown clearance) | **Life stage: Y:** Young (obviously planted within the last three years (unless as a heavy or extra-heavy standard)). **SM:** Semi mature (recently planted and yet to attain mature stature; up to 25% of attainable age.). **EM:** Early mature (almost full height, crown still developing and seed bearing; up to 50% of attainable age.). **M:** Mature (full height, crown spread, seed bearing; over 50% of attainable age.). **OM:** Over mature (full size, die-back, small leaf size, poor growth extension.).| **FSB:** First significant branch (& compass bearing) | **ERC:** Expected remaining contribution in years- <10, 10+, 20+, 40+ (assuming that there will be no physical changes to its immediate environment.| **BS Category:** Refer to appendix 1 of this report or BS5837:2012 Table 1 for detailed descriptions.

No.	Name	Ht (crown)	Dia (stems)	Canopy spread N | E | S | W				Life stage	ERC	Comments & preliminary recommendations	BS Cat
T48	Lawson Cypress (Chamaecyparis lawsoniana)	8 (2)	250 (MS)	2	2	2	2	SM	20+	Elwoodii variety. Low individual quality but landscape value as boundary screening.	C2
T49	Wild Cherry (Prunus avium)	11 (2)	410 (1)	5	5	5	7.5	M	20+	Landscape value as part of boundary group. One long branch accounts for west of canopy.	B2
T50	Cockspurthorn (Crataegus crus galli)	8 (4)	290 (1)	5	4.5	4.5	3	EM	10+	Poor crown architecture. Twin stem from 2m with rubbing main stems at 5m. Uneven crown shape.	C2
T51	Cockspurthorn (Crataegus crus galli)	8 (4)	290 (1)	5	3	4.5	4.5	EM	10+	Uneven crown shape.	C2
T52	Lawson Cypress (Chamaecyparis lawsoniana)	8 (0.5)	190 (1)	2	2	2	2	SM	20+	Low individual quality but landscape value as part of boundary screening.	C2
T53	Lawson Cypress (Chamaecyparis lawsoniana)	6 (0.5)	150 (1)	2	2	2	2	Y	20+	Low individual quality but landscape value as part of boundary screening.	C2
T54	Wild Cherry (Prunus avium)	8 (2)	200,300 (2)	5	2	0.5	2	OM	<10	One sided crown shape. Ivy infested. Poor condition.	U
T55	Lawson Cypress (Chamaecyparis lawsoniana)	5 (0.5)	140 (1)	1	1	1	1	Y	20+		C1
T56	Unidentified species (Unidentified)	8 (2)	200 (3)	3	3	3	3	EM	20+	Unidentified ornamental tree.	C2
T57	Horse Chestnut (Aesculus hippocastanum)	14 (1)	220,280,370 (3)	6	6	6	6	M	10+	Evidence of bleeding canker at base of main stem. Heavily infested with leaf minor moth.	C2
T58	Common Oak (Quercus robur)	20 (2)	610 (1)	6	6	6	6	M	40+	High individual quality and landscape value as boundary screening.	A2

Notes: Dia (stems): trunk diameter in mm at 1.5m above ground level (number of stems) | **HT (crown):** Tree height (crown clearance) | **Life stage: Y:** Young (obviously planted within the last three years (unless as a heavy or extra-heavy standard)). **SM:** Semi mature (recently planted and yet to attain mature stature; up to 25% of attainable age.). **EM:** Early mature (almost full height, crown still developing and seed bearing; up to 50% of attainable age.). **M:** Mature (full height, crown spread, seed bearing; over 50% of attainable age.). **OM:** Over mature (full size, die-back, small leaf size, poor growth extension.).| **FSB:** First significant branch (& compass bearing) | **ERC:** Expected remaining contribution in years- <10, 10+, 20+, 40+ (assuming that there will be no physical changes to its immediate environment.| **BS Category:** Refer to appendix 1 of this report or BS5837:2012 Table 1 for detailed descriptions.

No.	Name	Ht (crown)	Dia (stems)	Canopy spread N | E | S | W				Life stage	ERC	Comments & preliminary recommendations	BS Cat
T59	Common Oak (Quercus robur)	14 (2)	470 (1)	6	6	6	3	EM	40+	Uneven crown shape. Landscape value as part of boundary screening.	B2
T60	Common Oak (Quercus robur)	20 (2)	550 (1)	5	4	5	5	M	40+	Uneven crown shape. Landscape value as part of boundary screening.	B2
T61	Sycamore (Acer pseudoplatanus)	10 (3)	270 (1)	4	3.5	3.5	3.5	SM	40+	Self seeded tree.	C2
T62	Field Maple (Acer campestre)	10 (2)	300 (1)	2	4.5	4.5	4.5	EM	20+	Uneven crown shape but landscape value as part of boundary screening.	B2
T63	Field Maple (Acer campestre)	10 (2)	300 (1)	3	3	3	3	EM	20+	Stem position estimated as not indicated on topographical survey .	B2
T64	Unknown (Unknown)	4 (0.5)	150 (1)	2	2.5	3	3	SM	10+	Mimosa. Ornamental value. Stem position estimated as not indicated on topographical survey.	C1
T65	Lawson Cypress (Chamaecyparis lawsoniana)	5 (0.5)	150 (1)	2	1.5	1.5	1.5	Y	<10	Dieback throughout crown.	U
T66	Black Mulberry (Morus nigra)	2.5 (0.5)	400 (1)	3	3	3	3	OM	20+	Stem diameter estimated. Fallen over and growing as recumbent tree. No external significance but high cultural\historical value.	B3
T67	Common Oak (Quercus robur)	6 (2)	230 (1)	3	3	5	3	SM	20+	Poor crown architecture.	C1
T68	Sycamore (Acer pseudoplatanus)	14 (2)	350,380 (2)	6	6	6	6	M	40+	Fair tree. Twin stem from ground level. Consistent with self seeding.	B2
T69	Common Oak (Quercus robur)	18 (2)	560 (1)	6	7	5.5	5.5	M	40+		B2
T70	Atlas cedar (Cedrus atlantica)	13 (2)	370 (1)	5	4.5	4.5	4.5	EM	10+	Very sparse crown for age and species.	C1
T71	Leyland Cypress (X Cupressocyparis	7 (0.5)	220 (1)	2	1.5	1.5	1.5	SM	20+		C1

Notes: Dia (stems): trunk diameter in mm at 1.5m above ground level (number of stems) | **HT (crown):** Tree height (crown clearance) | **Life stage: Y:** Young (obviously planted within the last three years (unless as a heavy or extra-heavy standard)). **SM:** Semi mature (recently planted and yet to attain mature stature; up to 25% of attainable age.). **EM:** Early mature (almost full height, crown still developing and seed bearing; up to 50% of attainable age.). **M:** Mature (full height, crown spread, seed bearing; over 50% of attainable age.). **OM:** Over mature (full size, die-back, small leaf size, poor growth extension.).| **FSB:** First significant branch (& compass bearing) | **ERC:** Expected remaining contribution in years- <10, 10+, 20+, 40+ (assuming that there will be no physical changes to its immediate environment.| **BS Category:** Refer to appendix 1 of this report or BS5837:2012 Table 1 for detailed descriptions.

No.	Name	Ht (crown)	Dia (stems)	Canopy spread N | E | S | W				Life stage	ERC	Comments & preliminary recommendations	BS Cat
	leylandii)										
T72	Ash (Fraxinus excelsior)	20 (3)	360 (1)	5	5	5	5	M	40+		B2
T73	Common Oak (Quercus robur)	18 (2)	470 (1)	5	4.5	4.5	6	EM	40+		B2
T74	Common Oak (Quercus robur)	18 (2)	330 (1)	4	4	4	4	EM	20+	crown distorted by group pressure, black staining marks on trunk	B2
T75	Common Oak (Quercus robur)	18 (2)	260 (1)	4	4	4	4	EM	40+		B2
T76	Common Oak (Quercus robur)	18 (2)	360 (1)	4	4	4	4	EM	40+		B2
T77	Cider Gum (Eucalyptus gunnii)	18 (4)	340 (1)	3	0	4	4	SM	40+	Non native planted as ornamental.	C1
T78	Douglas Fir (Pseudotsuga menziesii)	7 (0)	150 (1)	3	3	3	3	Y	40+	Low category due to stem size but good future potential.	C1
T79	Common Oak (Quercus robur)	18 (2)	820 (1)	6	8	10	7	M	40+	Twin stem from 2m. High individual quality and landscape value.	A2
T80	Wild Cherry (Prunus avium)	14 (3)	400 (1)	4	3.5	3.5	5	M	10+	Former twin stem from ground level with one stem removed. Decay in base. Limited life expectancy as a result.	C1
T81	Swedish Whitebeam (Sorbus intermedia)	6 (2)	270 (1)	4	3.5	3.5	3.5	EM	20+	Ornamental tree.	C1
T82	Rowan (Sorbus aucuparia)	7 (2)	170 (1)	4	4	4	4	SM	10+	Sparse crown for age and species. Dieback throughout crown.	C1
T83	Scots Pine (Pinus sylvestris)	8 (0.5)	180 (1)	2	2	2	2	Y	20+	Fair tree in terms of future potential but not currently a development constraint.	C1

Notes: Dia (stems): trunk diameter in mm at 1.5m above ground level (number of stems) | **HT (crown):** Tree height (crown clearance) | **Life stage: Y:** Young (obviously planted within the last three years (unless as a heavy or extra-heavy standard)). **SM:** Semi mature (recently planted and yet to attain mature stature; up to 25% of attainable age.). **EM:** Early mature (almost full height, crown still developing and seed bearing; up to 50% of attainable age.). **M:** Mature (full height, crown spread, seed bearing; over 50% of attainable age.). **OM:** Over mature (full size, die-back, small leaf size, poor growth extension.).| **FSB:** First significant branch (& compass bearing) | **ERC:** Expected remaining contribution in years- <10, 10+, 20+, 40+ (assuming that there will be no physical changes to its immediate environment.| **BS Category:** Refer to appendix 1 of this report or BS5837:2012 Table 1 for detailed descriptions.

No.	Name	Ht (crown)	Dia (stems)	Canopy spread N | E | S | W				Life stage	ERC	Comments & preliminary recommendations	BS Cat
T84	Cedar of Lebanon (Cedrus libani)	15 (0.5)	540 (1)	4	4	4	4	M	40+	Fair tree with future potential.	B2
T85	Silver Birch (Betula pendula)	10 (1)	190 (1)	4	4	4	4	SM	20+		C1
T86	Wild Cherry (Prunus avium)	6 (0.5)	300 (1)	4	5	4	2	M	10+	Leaning at 45 degrees on decaying prop.	C1
T87	Wild Cherry (Prunus avium)	6 (2)	350 (1)	3	3	3	3	OM	<10	Dieback throughout crown poor vigor.	U
T88	Wild Cherry (Prunus avium)	6 (0.5)	180 (1)	3	3	3	3	SM	20+		C1
T89	Wild Cherry (Prunus avium)	6 (1.5)	350 (1)	4	4	4	4	OM	<10	Very sparse crown for age and species with dieback throughout crown.	U
T90	Wild Cherry (Prunus avium)	6 (1.5)	250 (1)	3	3	3	3	EM	20+		C1
T91	Wild Cherry (Prunus avium)	7 (1.5)	280 (1)	3	6	3	0	M	10+	Uneven crown shape due to competition with adjacent tree.	C1
T92	Pissardii (Prunus cerasifera)	8 (3)	300 (1)	3	3	3	3	M	<10	Decay over main stem.	U
T93	Ash (Fraxinus excelsior)	12 (2)	400 (1)	6	6	6	6	M	20+	Fair quality tree.	B2
T94	Wild Cherry (Prunus avium)	6 (2)	330 (1)	4	4	4	4	M	10+		C1
T95	Apple (Malus)	4.5 (2)	480 (MS)	4	4	4	4	OM	<10	Ganoderma on main limb to south. Decay visible on major limbs. Limited life expectancy.	U
T96	Lawson Cypress (Chamaecyparis lawsoniana)	10 (0)	400 (1)	3	2.5	2.5	2.5	M	20+	Stem diameter estimated due to basal growth. Fast growing conifer planted as ornamental. Some value in current context but not a development constraint.	C1
T97	Ash (Fraxinus excelsior)	11 (2)	380 (1)	4	4	4	4	M	20+		B2

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No.	Name	Ht (crown)	Dia (stems)	Canopy spread N | E | S | W				Life stage	ERC	Comments & preliminary recommendations	BS Cat
T98	Beech (Fagus sylvatica)	8 (1)	230 (1)	4	3.5	3.5	3.5	EM	20+	Part of linear group.	B2
T99	Beech (Fagus sylvatica)	8 (1)	280 (1)	4	3.5	3.5	3.5	EM	20+	Part of linear group.	B2
T100	Beech (Fagus sylvatica)	9 (1)	380 (1)	4	4	4	4	M	20+	Part of linear group. Topped and regrown from 2m.	B2
T101	Beech (Fagus sylvatica)	9 (1)	140,200,240 (3)	5	5	5	5	M	20+	Part of linear group. Topped and regrown from 2m.	B2
T102	Common Oak (Quercus robur)	13 (2)	430 (1)	7	7	7	2	EM	20+	One sided crown shape. Shared canopy with adjacent tree.	B2
T103	Ash (Fraxinus excelsior)	13 (2)	420 (1)	7	2	7	7.5	EM	20+	One sided crown shape. Shared canopy with adjacent tree.	B2
T104	Norway Maple (Acer platanoides)	14 (1)	630 (1)	7	7	7	7	M	20+		B2
T105	Hornbeam (Carpinus betulus)	14 (1.5)	420 (1)	5	5	5	5	M	10+	Cavity in main stem. Limited life expectancy as a result.	C1
T106	Pissardii (Prunus cerasifera)	10 (3)	240 (1)	3	3	3	3	OM	<10	Over mature. Sparse crown and dieback throughout crown. Limited life expectancy.	U
T107	Tree of Heaven (Ailanthus altissima)	12 (5)	400 (1)	4	3.5	3.5	3.5	M	<10	Moribund.	U
T108	Ash (Fraxinus excelsior)	14 (5)	370 (1)	5	5	5	5	EM	20+	Stem position estimated as not indicated on topographical survey.	B2
T109	Lawson Cypress (Chamaecyparis lawsoniana)	7 (0.5)	150 (1)	1	0.5	0.5	0.5	Y	10+	Pencil Cedars.	C1
T110	Monkey Puzzle (Araucaria araucana)	3 (0.5)	50 (1)	1	1	1	1	Y	40+	Good quality suitable for relocation.	C1

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No.	Name	Ht (crown)	Dia (stems)	Canopy spread N | E | S | W				Life stage	ERC	Comments & preliminary recommendations	BS Cat
G1	Portugal Laurel (Prunus lusitanica)	4 (0.5)	200 (1)	5	5	5	5	EM	20+	Dense boundary screening.	C2
G2	Holly (Ilex aquifolium)	6 (2)	150 (MS)	3	2.5	2.5	2.5	SM	10+		C2
G3	Apple, Cockspurthorn, Pear (Malus, Crataegus crus galli, Pyrus)	4 (1)	200 (1)	2	2	2	2	M	20+	Orchard of assorted fruit trees. Diameters range between 100 and 300. Crown spreads 2 - 4m. Value in current context but no landscape significance due to position within site interior. Canopy heights all low to enable picking.	C2
G4	Leyland Cypress (X Cupressocyparis leylandii)	10 (1)	300 (1)	3	2.5	2.5	2.5	EM	20+	Fast growing conifers planted in linear group.	C2
G5	Leyland Cypress (X Cupressocyparis leylandii)	10 (1)	200 (1)	3	2.5	2.5	2.5	EM	20+	Fast growing conifers planted in linear group. Average estimated dimensions given for group.	C2
G6	Apple, Crab Apple, Pear (Malus, Malus sylvestris, Pyrus)	4 (1)	150 (1)	2	2	2	2	SM	20+	Orchard group. Nixed fruit trees. Average estimated dimensions given for group.	C1

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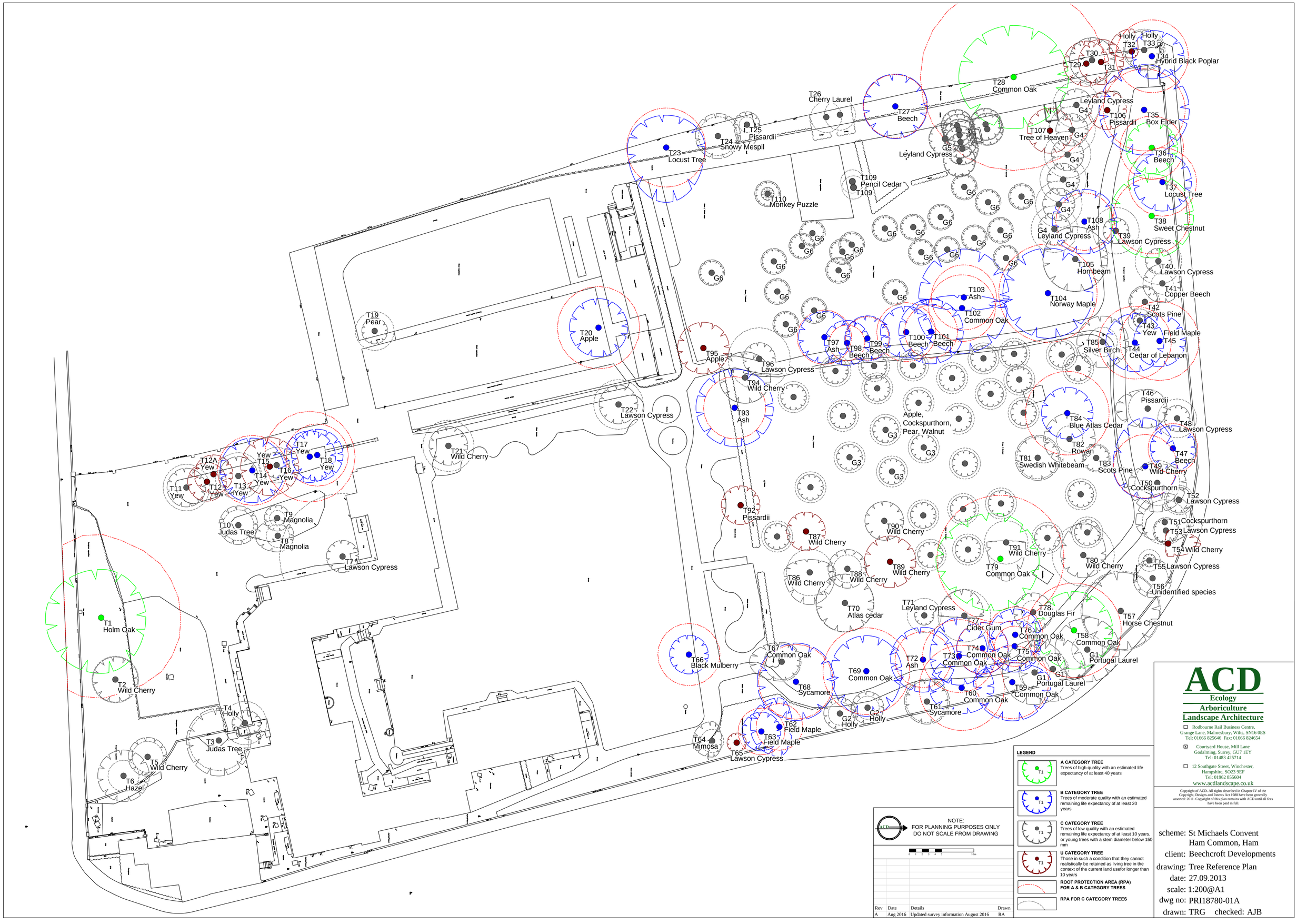
APPENDIX 3: TREE REFERENCE PLAN
(PRI18780-01A)



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NOTE:
FOR PLANNING PURPOSES ONLY
DO NOT SCALE FROM DRAWING

0 5 10 15 20 25 30m

Rev	Date	Details	Drawn
A	Aug 2016	Updated survey information August 2016	RA

LEGEND

A CATEGORY TREE
Trees of high quality with an estimated life expectancy of at least 40 years

B CATEGORY TREE
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years

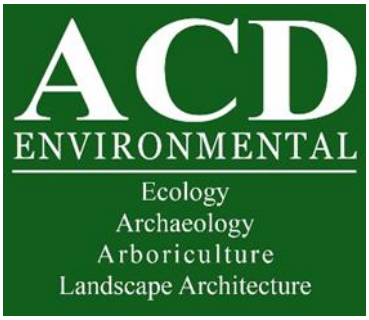
C CATEGORY TREE
Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm

U CATEGORY TREE
Those in such a condition that they cannot realistically be retained as living tree in the context of the current land usefor longer than 10 years

ROOT PROTECTION AREA (RPA) FOR A & B CATEGORY TREES

RPA FOR C CATEGORY TREES

scheme: St Michaels Convent
Ham Common, Ham
client: Beechcroft Developments
drawing: Tree Reference Plan
date: 27.09.2013
scale: 1:200@A1
dwg no: PRI18780-01A
drawn: TRG checked: AJB



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