



Oxford University Development Ltd

Begbroke Science Park

Addendum to Arboricultural Assessment

August 2021

FPCR Environment and Design Ltd

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Rev	Issue Status	Prepared / Date	Approved/Date
-	Final	EC / 25.08.21	HCK / 26.08.21
A	Final	EC / 27.08.21	HCK / 27.08.21

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1.0 INTRODUCTION

- 1.1 This addendum has been prepared by FPCR Environment and Design Limited on behalf of Oxford University Development Ltd, the applicant, and should be read in conjunction with the Arboricultural Assessment dated May 2018, also produced by FPCR Environment and Design Limited.
- 1.2 The purpose of this addendum is to provide further assessment of impacts upon existing tree cover, following detailed design work, to facilitate the further development at Begbroke Science Park (BSP) providing up to 12,500m² of B1a / b / c and ancillary D1 floor space, and associated car parking including re-disposition of existing car parking, granted outline consent by Cherwell District Council (Planning Reference 18/00803/OUT) on 17th September 2018.
- 1.3 As part of this addendum an updated tree survey, in accordance with the guidelines contained within British Standard 5837:2012 '*Trees in Relation to Design, Demolition and Construction - Recommendations*' (hereafter referred to as BS5837), was undertaken in August 2021.
- 1.4 The survey was undertaken by a suitably qualified and experienced arboriculturalist and has recorded information relating to all those trees within the site and those adjacent to the site which may be of influence to any proposals.
- 1.5 The purpose of the report is therefore to firstly, present the results of this updated tree survey and to secondly, provide an assessment of impact arising from the proposed development of the site following detailed design work and based on the latest development proposals.

2.0 RESULTS

- 2.1 A total of 51 individual trees, 22 groups of trees and six hedgerows were surveyed as part of the updated assessment, some of which were outside of the Outline Planning Development Boundary, identified on the updated Tree Survey Plan (8296-T-02_A).
- 2.2 Appendix A presents details of all individual trees, groups and hedgerows recorded during the assessment including heights, diameters at breast height, crown spread (given as a radial measurement from the stem), age class, comments as to the overall condition at the time of inspection, BS5837 category of quality and suitability for retention and root protection area (RPA), calculated in accordance with Annex C, D and Section 4.6 of BS5837:2012.
- 2.3 The individual positions of the trees, groups and hedgerows have been shown on the Tree Survey Plan. The positions of trees are based on a topographical / land survey, as far as possible, supplied by the client. Where topographical information has not identified the position of trees these have been plotted using a global positioning system and aerial photography to provide approximate locations. The crown spread, root protection area and shade pattern (where appropriate) are also indicated on this plan.

3.0 ARBORICULTURAL IMPACT ASSESSMENT

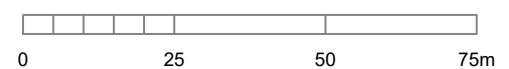
- 3.1 The AIA has been based upon the Landscape Masterplan (LP2264_FIR_00_ZZ_DR_L_0003) and seeks to outline the relationship between the latest development proposals and the existing trees.
- 3.2 The latest development proposals will result in few additional arboricultural impacts, from those shown and discussed with the previous Arboricultural Assessment dated May 2018 and granted outline consent by Cherwell District Council (Planning Reference 18/00803/OUT).
- 3.3 Following detailed design work, however it has become apparent that an additional individual tree T7, and single tree group G7, would also require removal, to allow for the installation of an access road along the western boundary, necessary to provide accessible parking spaces for the proposed Commercial Building and to retain a farm access track.
- 3.4 T7 a mature ash *Fraxinus excelsior* situated close to the site's western boundary, was considered of low quality due to its current condition and resulting reduced safe life expectancy. T7 displayed a sparse crown appearance which could be attributed to its over mature age or could be the result of ash die back *Hymenoscyphus fraxineus*, which although could not be confirmed, due to the time of year and the absence of leaf litter and fruiting bodies, was identified on young trees within buffer planted groups on the site boundary, identifiable by the characteristic diamond lesions and discoloration of twigs.
- 3.5 G7, a group comprising two mature Lombardy poplar *Populus nigra 'Italica'*, was again considered of low quality despite their mature size, due to a reduced safe life expectancy, by virtue of the short-lived nature of the species. The position of these trees close to the existing car park, would make their long-term retention, in the context of the current site use unsuitable, and both trees would likely require significant reduction, or be removed entirely, within the next 20 years, in the interest of safety.
- 3.6 Due to the limited space between the proposed Commercial Building and site boundary the proposed access road would need be positioned within the RPA of both T7 and G7 and the necessary excavation required to provide a sufficient subbase for this access road is likely to impact the rooting systems of both T7 and G7, potentially resulting in both trees being more susceptible to future failure and increase their rate of decline.
- 3.7 This subsequent increased risk of whole tree or branch failures as a result of these works, combined with the likely increased footfall beneath these trees and the proximity of the proposed Commercial Building would make the retention of both T7 and G7 unsuitable, in the interest of safety.
- 3.8 There should be no objection raised on arboricultural grounds to the removal of both T7 and G7, with both being considered of over mature proportions and in the context of the current site use, nearing the end of the useful safe life expectancy.
- 3.9 The removal of T7 and G7 could be mitigated for through new tree planting along the western boundary as part of the landscaping scheme, providing trees of higher quality which would be more suited to the future use of the site and would provide a new generation of tree cover to ensure succession to maintain and continue the tree'd landscape character of the site.



KEY

-  Category A - Trees / Groups of High Quality (BS 5837:2012)
-  Category B - Trees / Groups of Moderate Quality (BS 5837:2012)
-  Category C - Trees / Groups of Low Quality (BS 5837:2012)
-  Hedgerow (Colour indicates BS5837:2012 Category)
-  Root Protection Area (The RPA has been altered where appropriate to reflect underground constraints)
-  Individual / Group Number and BS5837:2012 Category
-  Indicative Shade Pattern (in accordance with BS5837:2012 where appropriate)
-  Outline Planning Development Boundary

Scale 1:1250 @ A3



NOTES

All dimensions to be verified on site. Do not scale this drawing, use figured dimensions only. All discrepancies to be clarified with project Arboriculturalist. Drawing to be read in conjunction with Arboricultural Assessment and Appendix A - Tree Schedule.

Drawing has been produced in colour and is based on digital information in .dwg format, aerial images and/or GPS location where appropriate. A monochrome copy should not be relied upon. The exact position of individual trees or species included as part of a tree group, woodland or hedgerow should be checked and verified on site prior to any decisions for foundation design, tree operations or construction activity being undertaken. Further survey work would be required for calculating foundation depths.


Trees are living organisms that change over time, the condition of all trees illustrated herein, are to be checked by the project Arboriculturalist should works commence 12 months after the date of this survey.

SOME TREES MAY BE SUBJECT TO STATUTORY CONSTRAINTS. IT IS THEREFORE ADVISED THAT NO WORKS SHOULD BE UNDERTAKEN TO ANY TREES ILLUSTRATED HEREIN WITHOUT FIRST OBTAINING THE RELEVANT AUTHORISATION TO DO SO UNLESS AGREED AS PER THE APPROVED PLANS THROUGH PLANNING CONSENT.

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rev	date	description	by
-	13.03.2018	First Issue	CTT
A	25.08.2021	Update	EC



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project
Begbroke Science Park
Begbroke

drawing title
TREE SURVEY PLAN

scale
1:1250 @ A3

drawn
EC

date
August 2021

drawing number
8296-T-02

rev
A








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Def



KEY

-  Tree/Group to be Retained
-  Tree/Group Proposed to be Removed to Facilitate the Outline Development
-  Hedgerow Proposed to be Retained
-  Tree/Group Proposed to be Removed to Facilitate Separate Full Planning Application for Car Park and Service Building
-  Hedgerow Proposed to be Removed to Facilitate Separate Full Planning Application for Car Park and Service Building
-  Root Protection Area (Shown for retained trees only)
-  Outline Planning Development Boundary

Scale 1:1250 @ A3



NOTES

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-	13.03.2018	First Issue	CTT
A	24.08.2021	Update	EC
B	25.08.2021	Revision	EC
C	26.08.2021	Revision	EC

rev	date	description	by
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- masterplanning
- environmental assessment
- landscape design
- urban design
- ecology
- architecture
- arboriculture

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client
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project
**Begbroke Science Park
 Begbroke**

drawing title
TREE RETENTION PLAN

scale
 1:1250 @ A3

drawn
 EC

date
 August 2021

drawing number
8296-T-03

rev
C

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Appendix A - Tree Schedule

Measurements	Age Class	Overall Condition	Root Protection Area (RPA)
Height - Measured using a digital laser clinometer (m)	YNG: Young trees up to ten years of age	G - Good: Trees with only a few minor defects and in good overall health needing little, if any attention	<ul style="list-style-type: none"> The RPA Radius column provides the extent of an equivalent circle from the centre of the stem (m). The RPA is calculated using the formulae described in paragraph 4.6.1 of British Standard 5837: 2012 and is indicative of the rooting area required for a tree to be successfully retained. Tree roots extend beyond the calculated RPA in many cases and where possible a greater distance should be protected. Where veteran trees have been identified the RPA has been calculated in accordance with Natural England guidance i.e. 15x the stem diameter, uncapped.
Stem Dia. - Diameter measured (mm) in accordance with Annex C of the BS5837	SM: Semi-mature trees less than 1/3 life expectancy	F - Fair: Trees with minor rectifiable defects or in the early stages of stress from which it may recover	
Crown Radius - Measured using a digital laser clinometer radially from the main stem (m)	EM: Early mature trees 1/3 – 2/3 life expectancy	P - Poor: Trees with major structural and/or physiological defects such that it is unlikely the tree will recover in the long term	
Abbreviations est - Estimated stem diameter avg - Average stem diameter for multiple stems upto - Maximum stem diameter of a group	M: Mature trees over 2/3 life expectancy	D - Dead: This could also apply to trees in an advanced state of decline and unlikely to recover	
	OM: Over mature declining or moribund trees of low vigour	The BS category particular consideration has been given to the following <ul style="list-style-type: none"> The health, vigour and condition of each tree The presence of any structural defects in each tree/group and its future life expectancy The size and form of each tree/group and its suitability within the context of a proposed development The location of each tree relative to existing site features e.g. its screening value or landscape features Age class and life expectancy 	
	V: Veteran tree possessing certain attributes relating to veteran trees		

Structural Condition
The following is an example of considerations when inspecting structural condition: <ul style="list-style-type: none"> The presence of fungal fruiting bodies around the base of the tree or on the stem, as they could possibly indicate the presence of possible internal decay Soil cracks and any heaving of the soil around the base Any abrupt bends in branches and limbs resulting from past pruning Tight or weak 'V' shaped forks and co-dominant stems Hazard beam formations and other such biomechanical related defects (as described by Claus Mattheck, Body Language of Trees HMSO Research for Amenity Trees No. 4 1994) Cavities as a result of limb losses or past pruning Broken branches or storm damage Damage to roots Basal, stem or branch / limb cavities Crown die-back or abnormal foliage size and colour

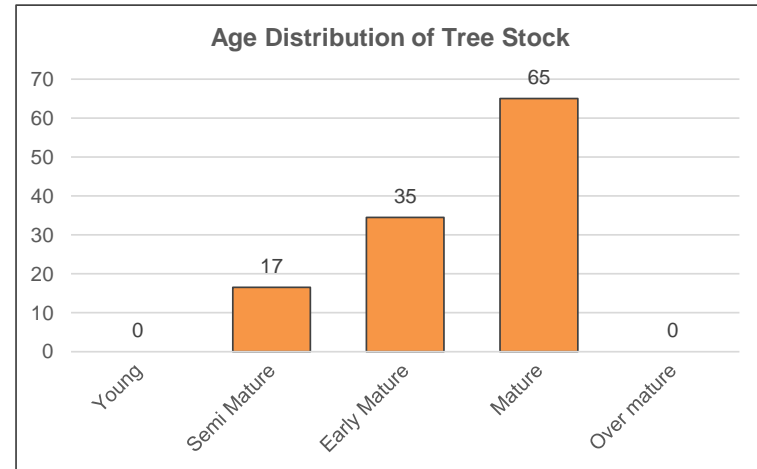
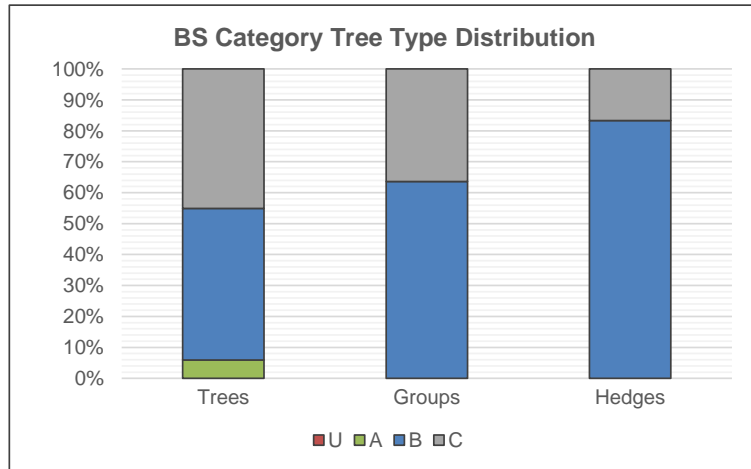
Quality Assessment of BS Category
Category U - Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.
Category A - Trees of high quality with an estimated remaining life expectancy of at least 40 years.
Category 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.
Sub-categories: (i) - Mainly arboricultural value (ii) - Mainly landscape value (iii) - Mainly cultural or conservation value

Appendix Summary

	Individual Trees	Totals	Tree Groups and Hedgerows	Totals
Category U		0		0
Category A	T11, T14, T26	3		0
Category B	T1, T3, T4, T12, T15, T16, T17, T18, T19, T20, T21, T22, T23, T25, T28, T29, T30, T31, T32, T33, T34, T45, T46, T49, T50	25	G1, G3, G4, G5, G6, G8, G9, G12, G13, G14, G16, G17, G20, G22, H1, H2, H3, H4, H6	19
Category C	T2, T5, T6, T7, T8, T9, T10, T13, T24, T27, T35, T36, T37, T38, T39, T40, T41, T42, T43, T44, T47, T48, T51	23	G2, G7, G10, G11, G15, G18, G19, G21, H5	9
	Total	51	Total	28

BS Category Tree Type Distribution displays the proportion of trees assessed in each type to enable a better understanding of the category distribution.

Age Distribution of Tree Stock shows the number of trees in each age category across the tree stock allowing assessment of their longevity to be made.



Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
INDIVIDUAL TREES										
T1	Leyland Cypress Cupressocyparis leylandii	14	680 580 360 340	6	M	F	Characteristic for species Low crown form Multi leadered form Multi stemmed from base No major defects were noted Possible bundle planting	472	12.3	B (i)
T2	Weeping Ash Fraxinus excelsior Pendula	7	320	3	EM	F	Bark wounds noted Limited future potential Minor dead wood evident in the crown (<75mm) Pruning wounds noted Suppressed crown form	46	3.8	C (i)
T3	English Oak Quercus robur	10	315	4.5	EM	F	Branch stubs evident Characteristic for species Compacted ground at the base Minor dead wood evident in the crown (<75mm) No major defects were noted Pruning wounds noted Small and squat tree Hard standing to east	45	3.8	B (i)
T4	English Oak Quercus robur	6	200	3	EM	G	Characteristic for species Low crown form Multi leadered form No major defects were noted Memorial tree	18	2.4	B (i)
T5	Lombardy Poplar Populus nigra 'Italica'	22	582	N - 5 S - 1 E - 4 W - 4	M	F	Bark wounds noted Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Asymmetrical crown form	153	7.0	C (i)
T6	Scots Pine Pinus sylvestris	13.5	720	4	EM / M	F	Branch stubs evident Compacted ground at the base Limited future potential Low crown form Minor dead wood evident in the crown (<75mm) Multi leadered form Stem bifurcated at 2m	235	8.6	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T7	Ash Fraxinus excelsior	18	660 510	8	M	F	Situated within grassed area west of footpath hardstanding within 1.5m of base to east exposed roots to east with mower damage twin stemmed from 0.5m past pruning to raise crown nesting box attached to stem at 5m Eastern aspect sparse crown likely Ash die back class 2	315	10.0	C (i)
T8	Rowan Sorbus aucuparia	6.5	240 120 80	3	M	G	Planted specimen within grassed area between car park and footpath twin stemmed from 0.5m low crown to 1m above ground level underground services within 2.5m of base to North east	35	3.4	C (i)
T9	Turkey Oak Quercus cerris	10	270	4	EM	F	Situated beyond wire fence lower branches growing through fence low crown to near ground level hard standing within 3m of base to east twin stemmed from 3m with included bark union noted between stems	33	3.2	C (i)
T10	Norway Maple Acer platanoides	10.5	485 450 510 240	6	M	F	Bark wounds noted Compacted ground at the base Delaminating bark on main stem Epicormic growth evident within the crown Low crown form Minor dead wood evident in the crown (<75mm) Multi stemmed from base Pruning wounds noted Poor past pruning Single stem cut at 2m Wetwood and exudates on main stem of northern most stem	342	10.4	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T11	English Oak Quercus robur	14	675	6.5	EM / M	G	Characteristic for species Compacted ground at the base Epicormic growth evident within the crown No major defects were noted Pruning wounds noted Car park and road within 3m of stem	206	8.1	A (i)
T12	Scots Pine Pinus sylvestris	11.5	508	5	EM / M	F / G	Bark wounds noted Characteristic for species Compacted ground at the base Minor dead wood evident in the crown (<75mm) No major defects were noted Garden tree	117	6.1	B (i)
T13	Laburnum Laburnum anagyroides	6	170	3	EM	F / G	Bark wounds noted Branch stubs evident Epicormic growth evident within the crown Limited future potential Low crown form Minor dead wood evident in the crown (<75mm)	13	2.0	C (i)
T14	Beech Fagus sylvatica	14	580	8	M	G	Characteristic for species Epicormic growth evident within the crown Low crown form No major defects were noted	152	7.0	A (i)
T15	Lawson Cypress Chamaecyparis lawsoniana	8.5	est 400	2	EM	G	Characteristic for species	72	4.8	B (i)
T16	Garrya elliptica	6	11x 100	3	M	G	Characteristic for species Multi stemmed from base No major defects were noted Pruning wounds noted	50	4.0	B (i)
T17	Apple Malus domestica	6	210	N - 4 S - 2 E - 2 W - 2	SM / EM	G	Characteristic for species	20	2.5	B (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T18	Lawson Cypress Chamaecyparis lawsoniana	14	est 205 200 180 210	3	EM	G	Characteristic for species No major defects were noted	90	5.3	B (i)
T19	Austrian Pine Pinus nigra ssp. Nigra	16.5	640	5	M	F	Branch stubs evident Characteristic for species Minor dead wood evident in the crown (<75mm) No major defects were noted Pruning wounds noted Storm damage present	185	7.7	B (i)
T20	Austrian Pine Pinus nigra ssp. Nigra	22	820	N - 4 S - 9 E - 6 W - 4	M	F	Bark wounds noted Branch stubs evident Characteristic for species Minor dead wood evident in the crown (<75mm) No major defects were noted Pruning wounds noted Storm damage present	304	9.8	B (i)
T21	Austrian Pine Pinus nigra ssp. Nigra	22	910	N - 6 S - 6 E - 3 W - 5	M	F	Bark wounds noted Branch stubs evident Characteristic for species Minor dead wood evident in the crown (<75mm) No major defects were noted Pruning wounds noted Storm damage present Sparse crown due to loss of primary laterals Bird box on stem	375	10.9	B (i)
T22	Yew Taxus baccata	9	485	4	M	F / G	Characteristic for species Multi leadered form No major defects were noted Pruning wounds noted	106	5.8	B (i)
T23	Scots Pine Pinus sylvestris	12	375	3	EM	G	Bark wounds noted Branch stubs evident Characteristic for species Minor dead wood evident in the crown (<75mm) No major defects were noted	64	4.5	B (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T24	Scots Pine Pinus sylvestris	8	390	N - 5 S - 2 E - 3 W - 3	EM	G	Bark wounds noted Branch stubs evident Characteristic for species Compacted ground at the base Minor dead wood evident in the crown (<75mm) No major defects were noted Suppressed crown form	69	4.7	C (i)
T25	Common Walnut Juglans regia	9	est 350	5	EM / M	G	Characteristic for species Low crown form No major defects were noted Pruning wounds noted	55	4.2	B (i)
T26	Silver Birch Betula pendula	13	560	7	M	G	Bark wounds noted Epicormic growth evident within the crown Minor dead wood evident in the crown (<75mm) Multi leadered form No major defects were noted Retained around hard landscaping	142	6.7	A (i)
T27	Wild Cherry Prunus avium	10	310 240	4	EM	F	Epicormic growth evident within the crown Included bark union Low crown form Pruning wounds noted	70	4.7	C (i)
T28	Sweet Gum Liquidambar styraciflua	8	180	3	SM / EM	G	Bark wounds noted Low crown form Multi leadered form No major defects were noted	15	2.2	B (i)
T29	Italian Alder Alnus cordata	13	430	N - 4 S - 3 E - 6 W - 2	M	G	Planted specimen within grassed area between car park and footpath twin stemmed from 0.5m uneven crown due to suppression from adjacent trees lateral branch develops to east over car parking space hardstanding within 5m to east	84	5.2	B (i)
T30	Apple Malus domestica	8.5	320 280 210 200 170	N - 6 S - 2 E - 6 W - 6	M	G	Planted specimen within grassed area between car park and footpath twin stemmed from 0.5m low crown to 1.5m above ground level uneven crown due to suppression from adjacent tree	133	6.5	B (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T31	Field Maple <i>Acer campestre</i>	10	10x 180	4.5	M	G	Planted specimen within grassed area between car park and footpath low crown to 1.5m above ground level past pruning to raise crown multi stemmed from base	147	6.8	B (i)
T32	Field Maple <i>Acer campestre</i>	10	6x 180	N - 4 S - 4 E - 4 W - 2	M	G	Planted specimen within grassed area between car park and footpath low crown to 1.5m above ground level multi stemmed from base tree appears to have been previously topped at 3m single dead stem	88	5.3	B (i)
T33	Field Maple <i>Acer campestre</i>	13	430	N - 4 S - 2 E - 2 W - 4	M	G	Planted specimen within grassed area between car park and footpath low crown to 1.5m above ground level appears to have been previously topped at 3m	84	5.2	B (i)
T34	Lombardy Poplar <i>Populus nigra 'Italica'</i>	25	480	3	M	G	Planted specimen within grassed area between car park and footpath end tree within a group closest to site characteristic of species	104	5.8	B (i)
T35	Crab Apple <i>Malus sylvestris</i>	6.5	260	3	M	F	Situated within grassed area west of footpath hardstanding within 3m of base to east recent excavation for services within 2m of base to South East suppressed by larger adjacent tree	31	3.1	C (i)
T36	Laburnum <i>Laburnum anagyroides</i>	5	est 200 150	N - 2 S - 2 E - 3 W - 1	M	F	Situated within 1m of hedgerow unable to access base due to dense undergrowth twin stemmed from 1m with included bark union noted between stems multi leaded crown develops at 2m crown is suppressed by adjacent hedgerow	28	3.0	C (i)
T37	Manna Ash <i>Fraxinus ornus</i>	8	165	2	SM	G	Recently planted specimen within area of naturalised green space forms part of a group of two trees crown to 1m above ground level	12	2.0	C (i)
T38	Manna Ash <i>Fraxinus ornus</i>	8	195	2	SM	G	Recently planted specimen within area of naturalised green space forms part of a group of two trees crown to 1m above ground level	17	2.3	C (i)
T39	Manna Ash <i>Fraxinus ornus</i>	6	165	2	SM	G	Recently planted specimen within area of naturalised green space forms part of a group of three trees crown to 1m above ground level strimmer damage to main stem at base	12	2.0	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T40	Manna Ash Fraxinus ornus	7	175	2	SM	G	Recently planted specimen within area of naturalised green space forms part of a group of three trees crown to 1m above ground level strimmer damage to main stem at base	14	2.1	C (i)
T41	Manna Ash Fraxinus ornus	6	155	2	SM	G	Recently planted specimen within area of naturalised green space forms part of a group of three trees crown to 1m above ground level	11	1.9	C (i)
T42	Himalayan Birch Betula utilis	7	150	2	SM	G	Recently planted specimen within area of naturalised green space forms part of a group of three trees crown to 1m above ground level strimmer damage to main stem at base	10	1.8	C (i)
T43	Himalayan Birch Betula utilis	7	135	2	SM	G	Recently planted specimen within area of naturalised green space forms part of a group of three trees crown to 1m above ground level strimmer damage to main stem at base	8	1.6	C (i)
T44	Himalayan Birch Betula utilis	7	155	2	SM	G	Recently planted specimen within area of naturalised green space forms part of a group of three trees crown to 1m above ground level strimmer damage to main stem at base	11	1.9	C (i)
T45	English Oak Quercus robur	7.5	220	3	SM	G	Recently planted specimen within area of naturalised green space forms part of a group of three trees crown to 1.5m above ground level	22	2.6	B (i)
T46	English Oak Quercus robur	7.5	230	3	SM	G	Recently planted specimen within area of naturalised green space forms part of a group of three trees crown to 1.5m above ground level	24	2.8	B (i)
T47	English Oak Quercus robur	6	200	3	SM	F	Recently planted specimen within area of naturalised green space forms part of a group of three trees crown to 1.5m above ground level appears to have previous lost main leader at 3m forming a multi leadered crown	18	2.4	C (i)
T48	Silver Birch Betula pendula	13	280	3	SM	F	Situated within naturalised green space low crown to 1m above ground level main stem leans to east at circa 10 degrees from vertical no obvious lifting of root plate	35	3.4	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T49	English Oak Quercus robur	6.5	240	3	SM	G	Recently planted specimen within area of naturalised green space forms part of a group of three trees crown to 1m above ground level	26	2.9	B (i)
T50	English Oak Quercus robur	6.5	190	2.5	SM	G	Recently planted specimen within area of naturalised green space forms part of a group of three trees crown to 1m above ground level	16	2.3	B (i)
T51	English Oak Quercus robur	5	160	3	SM	F	Recently planted specimen within area of naturalised green space forms part of a group of three trees crown to 1m above ground level appears to have previously lost main leader at 2.5m with twin leaders developing at this point	12	1.9	C (i)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
GROUPS OF TREES										
G1	Hornbeam Carpinus betulus	13	upto 590	5	EM / M	G	Branch stubs evident Characteristic for species Low crown form Multi leaded form No major defects were noted Pruning wounds noted Trees have been tagged	157	7.1	B (ii)
G2	Silver Birch Betula pendula Lawson Cypress Chamaecyparis lawsoniana	13.5	upto 740	3	EM / M	F	Bark wounds noted Branch stubs evident Characteristic for species Crossing and rubbing branches Minor dead wood evident in the crown (<75mm) Multi leaded form Multi stemmed from base Pruning wounds noted Several heavily crossing and rubbing branches in upper crown	248	8.9	C (ii)
G3	Silver Birch Betula pendula	12	avg 328	4	EM / M	F / G	Bark wounds noted Characteristic for species Low crown form No major defects were noted	49	3.9	B (ii)
G4	Ash Fraxinus excelsior Crack Willow Salix fragilis Alder Alnus glutinosa	10	avg 150	2	SM / EM	F / G	Characteristic for species Epicormic growth evident within the crown Minor dead wood evident in the crown (<75mm) Multi leaded form Multi stemmed from base No major defects were noted	10	1.8	B (ii)
G5	Hybrid Black Poplar Populus x canadensis	23	upto 760	4	M	F	Bark wounds noted Branch stubs evident Characteristic for species Epicormic growth evident within the crown Minor dead wood evident in the crown (<75mm) No major defects were noted Row of evenly spaced trees	261	9.1	B (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G6	Common Lime <i>Tilia x europaea</i>	7	upto 320	3.5	EM	G	Low crown form Multi leadered form No major defects were noted Pruning wounds noted	46	3.8	B (ii)
G7	Lombardy Poplar <i>Populus nigra 'Italica'</i>	20	upto 745	4	M	F	Bark wounds noted Characteristic for species Compacted ground at the base Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Multi leadered form No major defects were noted	251	8.9	C (ii)
G8	English Oak <i>Quercus robur</i> Alder <i>Alnus glutinosa</i> Crab Apple <i>Malus sylvestris</i> Scots Pine <i>Pinus sylvestris</i>	14	upto 430	5	EM / M	F	Bark wounds noted Branch socket cavities observed Branch stubs evident Epicormic growth evident within the crown Low crown form Minor dead wood evident in the crown (<75mm) Multi stemmed from base No major defects were noted Mixed specimen tree cover along boundary	84	5.2	B (ii)
G9	Common Lime <i>Tilia x europaea</i> Field Maple <i>Acer campestre</i> Lombardy Poplar <i>Populus nigra 'Italica'</i>	22	avg 380	5	EM / M	F	Bark wounds noted Branch stubs evident Characteristic for species Dieback of the crown observed Epicormic growth evident within the crown Low crown form Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Multi leadered form Multi stemmed from base Pruning wounds noted Mixed specimen tree cover Lombardy poplar larger of the trees in group Benefit from remedial management	65	4.6	B (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G10	Alder Alnus glutinosa Apple Malus domestica	10	upto 500	6	M	F	Bark wounds noted Branch socket cavities observed Branch stubs evident Crossing and rubbing branches Epicormic growth evident within the crown Low crown form Minor dead wood evident in the crown (<75mm) Multi leaedered form Multi stemmed from base Woodpecker holes observed Linear tree group on edge of car parking	113	6.0	C (ii)
G11	Lilac Syringa vulgaris	6	7x 80	3	EM / M	P	Limited future potential Low crown form Multi stemmed from base	20	2.5	C (ii)
G12	Ash Fraxinus excelsior Blackthorn Prunus spinosa Crack Willow Salix fragilis English Oak Quercus robur Field Maple Acer campestre Goat Willow Salix caprea Hawthorn Crataegus monogyna Wild Cherry Prunus avium Damson Prunus insititia Hazel Corylus avellana Holly Ilex aquifolium Red Oak Quercus rubra Dogwood Cornus sanguinea	10	avg 150	2	SM / EM	F / G	Recently planted buffer group along site boundary no obvious management post planting close spacing between trees low crowns to near ground level restricts access within group forms an effective screen with moderate screening value ash die back evident within group class 2 predominantly shrub and small tree species along boundary with site small number of dead trees within group	10	1.8	B (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G13	Beech Fagus sylvatica Crack Willow Salix fragilis English Oak Quercus robur Field Maple Acer campestre Wild Cherry Prunus avium Alder Alnus glutinosa Hazel Corylus avellana Holly Ilex aquifolium Dogwood Cornus sanguinea	7	avg 160	2	SM / EM	G	Characteristic for species Etiolated form Interlocking crowns Low crown form Multi leadered form Multi stemmed from base No major defects were noted Landscape buffer planting	12	1.9	B (ii)
G14	Swedish Whitebeam Sorbus intermedia Sweet Gum Liquidambar styraciflua	7	upto 210	2	SM / EM	G	Characteristic for species Epicormic growth evident within the crown Low crown form No major defects were noted	20	2.5	B (ii)
G15	Wild Cherry Prunus avium Variegated holly Ilex aquifolium	4	210 180 100 150	3	EM	G	Multi stemmed from base No major defects were noted Pruning wounds noted Landscape planting	49	4.0	C (ii)
G16	Irish Yew Taxus baccata 'Fastigiata'	12	upto 6x 180	3	M	G	Characteristic for species Low crown form Minor dead wood evident in the crown (<75mm) Multi leadered form No major defects were noted	88	5.3	B (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G17	Irish Yew Taxus baccata 'Fastigiata' Lawson Cypress Chamaecyparis lawsoniana Leyland Cypress Cupressocyparis leylandii	11	avg 200	3	EM	G	Characteristic for species Low crown form Multi leadered form Multi stemmed from base Landscape planting in garden	18	2.4	B (ii)
G18	Hybrid Black Poplar Populus x canadensis	17.5	avg 650	5	M	F	Bark wounds noted Branch stubs evident Broken branches evident Compacted ground at the base Crown had been heavily reduced Epicormic growth evident within the crown Minor dead wood evident in the crown (<75mm) Multi leadered form Sparse crown Situating in road verge	191	7.8	C (ii)
G19	Leyland Cypress Cupressocyparis leylandii	9	avg 200	3	EM	F / G	Characteristic for species Low crown form Multi leadered form Multi stemmed from base Landscape planting	18	2.4	C (ii)
G20	Beech Fagus sylvatica Apple Malus domestica Whitebeam Sorbus aria	12	upto 495	5	EM / M	F / G	Branch stubs evident Characteristic for species Low crown form No major defects were noted Pruning wounds noted	111	5.9	B (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G21	Balsam Poplar Populus balsamifera	23	upto 650	6	M	P	Bark wounds noted Branch stubs evident Dead trees noted Dense undergrowth at the base Epicormic growth evident within the crown Limited future potential Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Mistletoe in crowns	191	7.8	C (ii)
G22	Scots Pine Pinus sylvestris	15	upto 465	4	EM	G	Group of three trees with circa 2m spacing between them planted within grassed area between car park and footpath low crowns to 1m to North small diameter dead branches and branch stubs noted in lower crowns typical of species	98	5.6	B (ii)

Hedge No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
HEDGEROWS										
H1	Beech Fagus sylvatica	2.5	avg 60	0.5	EM	G	Maintained hedgerow	2	0.7	B (ii)
H2	Beech Fagus sylvatica	2.5	avg 100	0.5	EM	G	Maintained hedgerow	5	1.2	B (ii)
H3	Beech Fagus sylvatica	2.5	avg 100	0.5	EM	G	Regularly maintained hedgerow Climbing plant had established along hedgerow suppressing sections	5	1.2	B (ii)
H4	Beech Fagus sylvatica	2.5	avg 100	0.5	EM	G	Maintained hedgerow	5	1.2	B (ii)
H5	Hawthorn Crataegus monogyna	0.5	avg 50	0.5	SM	G	Maintained hedgerow	1	0.6	C (ii)
H6	Beech Fagus sylvatica	2.5	avg 100	0.5	EM	G	Maintained hedgerow	5	1.2	B (ii)