



BS 5837:2012 Tree Survey Report

SITE: Plot 2 Dunsbury Hill Farm, Leigh Park

Site Surveyed by Gary Scammell

**Report prepared by
Gary Scammell MSc Arb. M.Arb.A**

Date 15 September 2015

Quality Assurance		
Checked by	Stuart Campbell	Date 15/9/15

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APPENDICES:

No.	Heading
1	Tree Constraints Plan

1. INTRODUCTION

1.1 Assignment

Mr Nick Butler Project Manager Bam Construction Ltd instructs me.

My brief is:

- a) To carry out a **survey of the trees** around the perimeter of a field identified as plot 2 on Dunsbury Hill Farm, Leigh Park. Only trees likely to be affected by the development of the site have been inspected and assessed in accordance with the British Standard 5837:2012, *Trees in relation to design, demolition and construction – Recommendations*.
- b) To carry out an **Arboricultural Implications Assessment**
- c) To produce a **Tree Constraints Plan**

1.2 Documents and Information Provided

I was provided with the following information:

- Auto Cad Drawing of the site

1.3 Relevant Background information

- a) I am advised by Mr Butler that construction will concentrate within the central field area of the site with the majority of the surrounding trees remaining in situ.
- b) In accordance with the planning process trees on or adjacent to development sites are a material consideration that may have a significant impact on the future development and use of the site.
- c) It is necessary to identify at an early stage in the planning process those specimens that would be suitable for retention and would enhance any

development, while at the same time highlighting any trees of limited value that potentially would be an unnecessary or unreasonable constraint to development.

- d) As part of this process consideration has to be given to (1) the above ground physical size and location of existing trees and (2) the root systems. It is important to recognise that tree roots are particularly vulnerable during any adjacent construction operations. Tree roots flourish where conditions are most favourable, these tend to be near the soil surface, for this reason the majority of tree roots grow in the upper 600mm of the soil. This means that disturbance such as shallow excavations, soil compaction by heavy plant or machinery or contamination by substances such as cement, diesel or chemicals can be damaging to the root system.
- e) The British Standard 5837:2012 provides guidance and specifies measures to be adopted in order to avoid or minimise damage to trees retained on or in proximity to construction sites. One of the key recommendations is that a Root Protection Area (RPA) should be established around individual or groups of trees identified as being worthy of retention.

1.4 Scope of this report

- a) This report includes:
 - Tree Survey
 - Arboricultural Implications Assessment
 - Tree Constraints Plan
- b) The trees were inspected using the visual tree assessment method described by Mattheck and Breloer (The Body Language of Trees, DOE booklet Research for Amenity Trees No. 4. 1994). No detailed tree examinations were undertaken as none were warranted in this case.
- c) I did not establish whether the site lies within a conservation area or if any of the trees are the subject of a Tree Preservation Order.

2 SITE VISIT AND DATA COLLECTION

2.1 Site Visit

I carried out six site visits on 6,10,11,18 and 19 August and the 8 September 2015.

2.2 Brief Site description

The site is one of a network of fallow fields belonging to Dunsbury Hill Farm. It is surrounded by trees on the west, east and southern boundaries, while to the north there is a hedgerow with a number of mature trees and shrubs. The site slopes north to south by approximately 7 metres. There are no existing structures within the curtilage of the site.

2.3 Soil Type

No Specific soil information had been provided to me at the time of writing however; my visual inspection of the soil indicates that it is clay content. Accordingly it would appear that there is the potential for moisture induced volumetric changes to occur to the soil, this should be borne in mind both during any site development where structures are to be located in proximity to existing trees and when considering replacement tree planting.

3. TREE SURVEY

3.1 Tree Survey method

- a) All of my observations were from ground level without detailed investigations and I measured all dimensions unless otherwise indicated.
- b) I surveyed all trees objectively without reference to any design proposals supplied or suggested by the client.
- c) All trees were measured as per BS 5837:2012 recommendations. Those trees with a stem diameter of less than 75 mm at 1.5 m above ground level were excluded from the survey. As there was no detailed topographical survey provided for the survey I used a Trimble Juno T41 hand held computer that has an integrated real-time GPS system to locate and capture the individual tree data.

3.2 Appraisal/discussion of trees surveyed

- a) For the purposes of the survey and report each boundary of the field has been identified as a cardinal point i.e. north boundary, south boundary etc. The trees collectively formed prominent and distinct landscape features around the field and were surveyed and graded as woodland groups. While I have graded the groups based on landscape qualities and visual importance, the same level of grading would be applicable in the conservation category of the British Standard due to the significant nature conservation value of the woodlands.
- b) In addition conspicuous individual specimens within the woodland groups were assessed and graded individually to gauge age class, condition and historic management.
- c) The details of the individual trees I plotted and assessed are detailed in the schedule, below, together with an explanation of the BS 5837 tree grading criteria.

- d) **Group 1 West Boundary woodland group Grade B2:** Tree species include Oak (*Querus robur*) Ash (*Fraxinus excelsior*), Goat willow (*Salix caprea*) Hawthorn (*Crataegus monogyna*) and Silver birch (*Betula pendula*).

If possible the group should be retained intact with the root protection area extending eastwards for a distance of 15 metres from the trees. This is to allow for future tree growth to prevent compaction of the soil within the root protection area and to enable the retention of the shrub and grass layer, which forms an integral part of the habitat of this landscape feature.

The maximum height of this group is **17.5** metres measured from the centre of the site using a Nikon Forestry Pro Laser Clinometer.

- e) **Group 2 East Boundary woodland group Grade B2:** Tree species include Oak (*Querus robur*) Ash (*Fraxinus excelsior*), Goat willow (*Salix caprea*) Hawthorn (*Crataegus monogyna*) and Common beech (*Fagus sylvatica*).

Except where the site drainage is to be routed through the tree line at the southern end of this group, the remaining section should have a root protection area extending westwards for a distance of 15 metres from the trees. This is to allow for future tree growth to prevent compaction of the soil within the root protection area and to enable the retention of the shrub and grass layer, which forms an integral part of the habitat of this landscape feature.

The maximum height of this group is **17** metres measured from the centre of the site using a Nikon Forestry Pro Laser Clinometer.

- f) **Group 3 South Boundary woodland group Grade B2:** Tree species include Oak (*Querus robur*) Ash (*Fraxinus excelsior*) Goat willow (*Salix caprea*) Hawthorn (*Crataegus monogyna*) Silver birch (*Betula pendula*).

The root protection area is to extend north for a distance of 15 metres from the trees. This is to allow for future tree growth to prevent compaction of the soil within the root protection area and to enable the retention of the shrub and grass layer, which forms an integral part of the habitat of this landscape feature.

The maximum height of this group is **18** metres measured from the centre of the site using a Nikon Forestry Pro Laser Clinometer.

- g) **North Boundary Hedge 1:** Tree species include Oak (*Quercus robur*) Goat willow (*Salix caprea*) Hawthorn (*Crataegus monogyna*).

The protection area is to extend south based on the advice of the Site Ecologist, this is to allow for the retention of the shrub and grass layer, future tree growth and the protection of the hedgerow habitat.

- h) I assessed 123 individual trees around the site and have included the information within the survey schedule. There was 1 **A class high quality** specimen, 57 **B class trees of moderate quality**, while 47 were in the C class or low quality category the remaining 18 specimens were categorised as being in the U category. I plotted a number of shrub groups identified with a prefix S1, S2 etc. these are shown for illustrative purposes they have no arboricultural value although it should be borne in mind that the shrub layer forms an important part of the site habitat. During my assessment of the specimens included in the survey schedule I found very little evidence of historic management and at the present time I could see no reason for prescribing maintenance works unless trees are directly affected by the proposed development. This situation may change as the site is developed and future use impinges upon the tree cover.

4. ARBORICULTURAL IMPLICATIONS ASSESSMENT

4.1 Proposed site use and existing trees

Tree 102: Common Oak, this is a fine specimen and an important landscape feature. I recommend that no encroachment into the root protection area is permitted during any phase of the development.

Group 2 East Boundary woodland group

Installation of Site Drainage: It is proposed that the route of gravity fall drainage system will track through the eastern boundary at the southern end of the woodland where it will follow a course south parallel with and then beyond the woodland before heading west and terminating at a point beneath the overhead power lines.

The routing of the drain through the woodland will require a number of low quality trees to be cut down along with a swathe of the understory. In my opinion provided the operation is properly planned and adequate provision is made to protect trees adjacent to the installation then the impact will be minimal. However, if this to be achieved then the following measures should be adopted:

- On site: agree the precise route of the draining installation through the woodland (Arboriculturalist, Ecologist and Engineer to be present)
- Determine what trees must be removed to facilitate the installation.
- Establish the extent of the work area in particular the width of the corridor required to install the drain.
- Discuss with the Ecologist whether soft felling techniques should be employed for the removal of mature trees.
- Identify the small trees and shrubs that need to be removed preferably these should be coppiced rather than be removed entirely.
- Decide how the timber and arisings should be dealt with.
- Agree timescales for tree works.
- Install protective fencing either side of the agreed work area to prevent damage to adjacent trees and minimise soil compaction as this will inhibit natural regeneration.

4.2 Damage Prevention Pruning

Following my site visit on 10 September I noted that Heras fencing had been erected around the edge of the field this provides adequate protection for the majority of the trees on site, however, along the southern boundary the northern side of the crown of Oak 91 extends to a point where it is in very close proximity to the fencing. I recommend that this part of the crown be shortened back through judicious pruning rather than risk it being damaged by machinery such as a 360 excavator manoeuvring in the locality.

4.3 Mitigation Planting

If there is a requirement for additional planting then indigenous species and including but not limited to Oak *Quercus robur*, Field maple *Acer campestre*, and Hawthorn *Crataegus monogyna* should be considered.

5. CONCLUSION

5.1 Based on the information supplied, my site visits and discussion with Mr Butler conclusions are as follows:

If adequate provision is made to protect the woodland trees and hedgerow throughout the construction process then there is no reason why these prominent landscape features and valuable wildlife habitats cannot be retained intact. The impact of the installation of the drain will affect a small section of the south eastern group of trees.

Gary Scammell MSc.Arb. M.Arb.A
Arboricultural Consultant

Dated 15/9/2015

6. TREE CONSTRAINTS INFORMATION

Table 1: Tree Constraints Schedule

Site: Site Name: Plot B2 North of Ramsdale Avenue

TREE SURVEY SCHEDULE

Date survey carried out: 14 August 2015

Weather: Fine and Dry

Arboricultural surveyor: G. Scammell

Tree Reference Number	Species	Height m	Single Stem Diameter mm	Multi Stem Diameter mm	Branch Spread m	Height of Crown Clearance m	Age Class	Physiological Condition	Structural Condition / Preliminary Management Recommendations	Estimated Remaining Contribution years	Category Grading	Root Protection Area (RPA) m ²	RPA Multi Stemmed m ²	Radius of Nominal Circle m
1	Quercus robur	4	150		N	1	2	Early Mature	Reasonable	Located beneath overhead powerlines will not be allowed to develop into a specimen tree	20	C.2	10.180	1.80
					E	1								
					S	1								
					W	1								
2	Quercus robur	3	150		N	4	1	Early Mature	Reasonable	Located beneath overhead powerlines will not be allowed to develop into a specimen tree	20	C.2	10.180	1.80
					E	5								
					S	5								
					W	5								
3	Acer campestre	7		200	N	4	2	Mature	Reasonable		20	C.2	282.843	9.49
				200	E	4								
					S	4								
					W	4								
4	Acer campestre	7	200		N	4	2	Mature	Reasonable		20	C.2	18.098	2.40
					E	4								
					S	4								
					W	4								
5	Crataegus monogyna	4	175		N	2	1	Over Mature	Poor	In decline	10	U.2	13.856	2.10
					E	2								
					S	2								
					W	2								

6	Crataegus monogyna	4	170			N	2	1	Over Mature	Poor	In decline	10	U.2	13.076		2.04
						E	2									
						S	2									
						W	2									
7	Crataegus monogyna	4	200			N	2	1	Over Mature	Poor	In decline	10	U.2	18.098		2.40
						E	2									
						S	2									
						W	2									
8	Crataegus monogyna	4	179			N	2	1	Over Mature	Poor	In decline	10	U.2	14.497		2.15
						E	2									
						S	2									
						W	2									
9	Acer campestre	6	230			N	2	2	Mature	Reasonable		20	C.2	23.934		2.76
						E	2									
						S	2									
						W	2									
10	Quercus robur	11	650			N	9	2	Mature	Reasonable		40	B.2	191.159		7.80
						E	9									
						S	9									
						W	9									
11	Crataegus monogyna	4				N	1	1	Over Mature	Poor	In decline	10	U.2			
						E	1									
						S	1									
						W	1									
12	Crataegus monogyna	5	150			N	2	2	Over Mature	Reasonable		20	C.2	10.180		1.80
						E	2									
						S	2									
						W	2									

13	Salix caprea	5		120		N	5	2	Mature	Reasonable		20	C.2		169.706	7.35
				120		E	5									
						S	5									
						W	5									
14	Quercus robur	6	160			N	2	2	Mature	Poor	In decline	10	U.2	11.583		1.92
						E	2									
						S	2									
						W	2									
15	Acer campestre	5	150			N	1	2	Semi Mature	Poor		10	U.2	10.180		1.80
						E	1									
						S	1									
						W	1									
16	Salix caprea	4	240			N	4	1	Over Mature	Poor		10	U.2	26.061		2.88
						E	5									
						S	4									
						W	4									
17	Salix caprea	6	300			N	2	1	Mature	Reasonable		20	C.2	40.720		3.60
						E	2									
						S	2									
						W	2									
18	Quercus robur	16	750			N	11	3	Mature	Reasonable		40	B.2	254.502		9.00
						E	10									
						S	10									
						W	9									
19	Quercus robur	8	500			N	4	3	Mature	Poor	In decline	10	U.2	113.112		6.00
						E	4									
						S	4									
						W	4									

20	Quercus robur	17	300			N	1	14	Mature	Reasonable	Form typical of a tree in an unmanaged woodland	20	C.2	40.720		3.60
						E	1									
						S	1									
						W	1									
21	Quercus robur	17	300			N	1	14	Mature	Reasonable	Form typical of a tree in an unmanaged woodland	20	C.2	40.720		3.60
						E	1									
						S	1									
						W	1									
22	Quercus robur	17	310			N	1	15	Mature	Reasonable	Form typical of a tree in an unmanaged woodland	20	C.2	43.480		3.72
						E	1									
						S	1									
						W	1									
23	Quercus robur	17		400		N	5	6	Mature	Reasonable		40	B.2		692.820	14.85
				400		E	5									
				400		S	5									
						W	5									
24	Fraxinus excelsior	18	500			N	5	4	Mature	Reasonable	Form typical of a tree in an unmanaged woodland	20	C.2	113.112		6.00
						E	5									
						S	5									
						W	5									
25	Fraxinus excelsior	11		500		N	5	3	Mature	Reasonable		20	C.2		672.681	14.63
				450		E	4									
						S	4									
						W	6									
26	Quercus robur	17	600			N	8	4	Mature	Reasonable		40	B.2	162.881		7.20
						E	8									
						S	8									
						W	8									

27	Quercus robur	18		240		N	3	18	Mature	Poor		10	U.2		312.410	9.97
				200		E	3									
						S	3									
						W	3									
28	Quercus robur	18	280			N	5	2	Mature	Reasonable	Form typical of a tree in an unmanaged woodland	20	C.2	35.472		3.36
						E	4									
						S	5									
						W	5									
29	Quercus robur	18	300			N	1	14	Mature	Reasonable	Form typical of a woodland tree	20	C.2	40.720		3.60
						E	1									
						S	1									
						W	1									
30	Quercus robur	18	260			N	1	2	Mature	Reasonable	Form typical of a woodland tree	40	B.2	30.585		3.12
						E	1									
						S	1									
						W	1									
31	Quercus robur	18		200		N	1	14	Mature	Reasonable	Form typical of a woodland tree	40	B.2		282.843	9.49
				200		E	1									
						S	1									
						W	1									
32	Quercus robur	18	280			N	1	16	Mature	Reasonable	Form typical of a woodland tree	40	B.2	35.472		3.36
						E	1									
						S	1									
						W	1									
33	Quercus robur	18	400			N	2	15	Mature	Reasonable	Form typical of a woodland tree	40	B.2	72.392		4.80
						E	2									
						S	2									
						W	2									

34	Quercus robur	18	360			N	5	10	Mature	Reasonable		40	B.2	58.637		4.32
						E	3									
						S	3									
						W	3									
35	Quercus robur	18	450			N	9	4	Mature	Reasonable		40	B.2	91.621		5.40
						E	3									
						S	5									
						W	3									
36	Quercus robur	7	300			N	2	2	Mature	Reasonable	Form typical of a woodland tree	20	C.2	40.720		3.60
						E	2									
						S	2									
						W	2									
37	Quercus robur	19	300			N	10	5	Mature	Reasonable		40	B.2	40.720		3.60
						E	5									
						S	3									
						W	3									
38	Quercus robur	7		300		N	9	3	Mature	Poor	Form typical of a woodland tree	20	C.2		360.555	10.71
				200		E	2									
						S	5									
						W	3									
39	Fraxinus excelsior	15	400			N	5	2	Mature	Reasonable		20	C.2	72.392		4.80
						E	3									
						S	5									
						W	4									
40	Alnus glutinosa	15	500			N	5	6	Mature	Reasonable		20	C.2	113.112		6.00
						E	4									
						S	3									
						W	3									

41	Fraxinus excelsior	15	300			N	6	3	Mature	Reasonable		20	C.2	40.720		3.60
						E	3									
						S	4									
						W	3									
42	Fraxinus excelsior	15	220			N	3	4	Mature	Reasonable		20	C.2	21.898		2.64
						E	2									
						S	3									
						W	3									
43	Crataegus monogyna	5	200			N	2	1	Over Mature	Poor		10	U.2	18.098		2.40
						E	2									
						S	2									
						W	2									
44	Fraxinus excelsior	16		480		N	6	2	Mature	Reasonable		20	C.2		502.892	12.65
				150		E	7									
						S	6									
						W	6									
45	Fraxinus excelsior	16		200		N	4	2	Mature	Reasonable		20	C.2		458.258	12.08
				200		E	4									
				300		S	3									
				200		W	3									
46	Salix caprea	9		400		N	4	2	Mature	Poor		10	U.2		527.636	12.96
				280		E	6									
				200		S	3									
						W	6									
47	Fraxinus excelsior	15	400		7	N	1	3	Mature	Reasonable		20	C.2	72.392	11.225	4.80
					6	E	1									
					4	S	1									
					5	W	1									

48	Crataegus monogyna	6			150	N	2	2	Mature	Reasonable		20	C.2		259.808	9.09
					150	E	2									
					150	S	2									
						W	2									
49	Fraxinus excelsior	15	500			N	2	2	Mature	Reasonable		20	C.2	113.112		6.00
						E	2									
						S	2									
						W	2									
50	Fraxinus excelsior	16	400			N	3	3	Mature	Reasonable		20	C.2	72.392		4.80
						E	4									
						S	5									
						W	4									
51	Crataegus monogyna	7	300	300		N	2	1	Mature	Reasonable		20	C.2	40.720	350.000	3.60
				150		E	2									
				100		S	2									
						W	2									
52	Crataegus monogyna	6		150		N	3	2	Mature	Poor		10	U.2		300.000	9.77
				150		E	3									
				150		S	3									
				150		W	3									
53	Quercus robur	14	500			N	6	5	Mature	Reasonable		40	B.2	113.112		6.00
						E	5									
						S	6									
						W	5									
54	Quercus robur	17	530			N	5	7	Mature	Reasonable		40	B.2	127.093		6.36
						E	6									
						S	5									
						W	5									

55	Quercus robur	11	480			N	4	2	Mature	Reasonable		40	B.2	104.244		5.76
						E	1									
						S	7									
						W	10									
56	Quercus robur	16	600			N	7	1	Mature	Reasonable		40	B.2	162.881		7.20
						E	1									
						S	4									
						W	9									
57	Fraxinus excelsior	15	480			N	4	3	Mature	Reasonable		20	C.2	104.244		5.76
						E	10									
						S	3									
						W	4									
58	Fraxinus excelsior	16				N	6	3	Mature	Poor		10	U.2			
						E	4									
						S	5									
						W	7									
59	Fraxinus excelsior	16				N	7	3	Mature	Poor		10	U.2			
						E	5									
						S	3									
						W	6									
60	Fraxinus excelsior	16				N	6	3	Mature	Poor		10	U.2			
						E	4									
						S	5									
						W	7									
61	Fraxinus excelsior	16				N	7	3	Mature	Poor		10	U.2			
						E	5									
						S	3									
						W	8									

62	Quercus robur	15	480			N	4	3	Mature	Reasonable		40	B.2	104.244		5.76
						E	4									
						S	5									
						W	4									
63	Fraxinus excelsior	14	350			N	2	1	Mature	Reasonable		20	C.2	55.425		4.20
						E	2									
						S	2									
						W	2									
64	Quercus robur	14	420			N	4	5	Mature	Reasonable		40	B.2	79.812		5.04
						E	3									
						S	3									
						W	6									
65	Quercus robur	15		350		N	4	2	Mature	Poor		20	C.2		460.977	12.11
				300		E	5									
						S	4									
						W	2									
66	Quercus robur	16		690		N	7	3	Mature	Poor		20	C.2		802.621	15.98
				410		E	8									
						S	8									
						W	8									
67	Quercus robur	15		700		N	4	3	Mature	Reasonable		40	B.2		728.011	15.22
				200		E	4									
						S	4									
						W	4									
68	Quercus robur	14	300			N	3	2	Mature	Poor		20	C.2	40.720		3.60
						E	3									
						S	3									
						W	3									

69	Quercus robur	16		500		N	7	2	Mature	Poor		20	C.2		531.413	13.01
				180		E	5									
						S	7									
						W	7									
70	Quercus robur	16		500		N	6	4	Mature	Poor		10	U.2		672.681	14.63
				450		E	8									
						S	5									
						W	10									
71	Quercus robur	17		820		N	4	3	Mature	Reasonable		40	B.2		908.020	17.00
				390		E	7									
						S	4									
						W	7									
72	Quercus robur	16	1260			N	6	2	Mature	Reasonable		40	B.2	718.306		15.12
						E	8									
						S	8									
						W	8									
73	Quercus robur	14		390		N	5	3	Mature	Reasonable		40	B.2		492.037	12.51
				300		E	4									
						S	2									
						W	5									
74	Quercus robur	9	470			N	8	3	Mature	Reasonable		40	B.2	99.946		5.64
						E	7									
						S	1									
						W	7									
75	Quercus robur	15	650			N	6	3	Mature	Reasonable		40	B.2	191.159		7.80
						E	3									
						S	5									
						W	6									

76	Quercus robur	15	630			N	6	1	Mature	Reasonable		40	B.2	179.577		7.56
						E	7									
						S	7									
						W	3									
77	Salix caprea	7	400			N	5	2	Mature	Reasonable		20	C.2	72.392		4.80
						E	3									
						S	3									
						W	3									
78	Salix caprea	7		200		N	5	3	Mature	Reasonable		20	C.2		346.410	10.50
				200		E	5									
				200		S	5									
						W	5									
79	Fagus sylvatica	13	400			N	6	3	Mature	Poor		20	C.2	72.392		4.80
						E	5									
						S	5									
						W	5									
80	Quercus robur	15	550			N	5	3	Mature	Reasonable		40	B.2	136.866		6.60
						E	6									
						S	8									
						W	8									
81	Quercus robur	16	500			N	7	4	Mature	Reasonable		40	B.2	113.112		6.00
						E	7									
						S	7									
						W	3									
82	Quercus robur	16	400			N	5	3	Mature	Reasonable		40	B.2	72.392		4.80
						E	7									
						S	6									
						W	5									

83	Quercus robur	10	360			N	5	2	Mature	Reasonable		40	B.2	58.637		4.32
						E	4									
						S	4									
						W	3									
84	Quercus robur	17	560			N	12	2	Mature	Reasonable		40	B.2	141.888		6.72
						E	3									
						S	4									
						W	3									
85	Quercus robur	17	450			N	2	9	Mature	Reasonable		40	B.2	91.621		5.40
						E	2									
						S	2									
						W	2									
86	Quercus robur	17	460			N	8	8	Mature	Reasonable		40	B.2	95.738		5.52
						E	2									
						S	2									
						W	3									
87	Quercus robur	17	549			N	10	8	Mature	Reasonable		40	B.2	136.368		6.59
						E	4									
						S	3									
						W	5									
88	Quercus robur	17	400			N	10	3	Mature	Reasonable		40	B.2	72.392		4.80
						E	4									
						S	3									
						W	3									
89	Quercus robur	17	470			N	10	2	Mature	Reasonable		40	B.2	99.946		5.64
						E	3									
						S	4									
						W	2									

90	Quercus robur	17	460			N	9	4	Mature	Reasonable		40	B.2	95.738		5.52
						E	5									
						S	2									
						W	3									
91	Quercus robur	17	530			N	12	6	Mature	Reasonable		40	B.2	127.093		6.36
						E	4									
						S	4									
						W	3									
92	Quercus robur	17	560			N	9	3	Mature	Reasonable		40	B.2	141.888		6.72
						E	7									
						S	3									
						W	4									
93	Quercus robur	13	400			N	8	3	Mature	Reasonable		40	B.2	72.392		4.80
						E	2									
						S	2									
						W	6									
94	Salix caprea	7			200	N	10	1	Mature	Reasonable		20	C.2		400.000	11.28
					200	E	10									
					200	S	3									
					200	W	10									
95	Quercus robur	14	510			N	7	3	Mature	Reasonable		40	B.2	117.682		6.12
						E	4									
						S	3									
						W	7									
96	Quercus robur	17	560			N	7	7	Mature	Reasonable		40	B.2	141.888		6.72
						E	6									
						S	3									
						W	5									

97	Betula pendula	15	420			N	6	5	Mature	Reasonable		20	C.2	79.812		5.04
						E	3									
						S	2									
						W	3									
98	Quercus robur	15	370			N	10	10	Mature	Reasonable		40	B.2	61.940		4.44
						E	2									
						S	2									
						W	2									
99	Quercus robur	17	380			N	7	6	Mature	Reasonable		40	B.2	65.333		4.56
						E	3									
						S	3									
						W	33									
100	Quercus robur	15	350			N	5	5	Mature	Reasonable		40	B.2	55.425		4.20
						E	3									
						S	2									
						W	3									
101	Salix caprea	5			200	N	7	1	Over Mature	Poor		20	C.2		400.000	11.28
					200	E	10									
					200	S	10									
					200	W	15									
102	Quercus robur	18	1360			N	12	3	Mature	Good		40	A.2	836.848		16.32
						E	11									
						S	10									
						W	11									
103	Quercus robur	14	510			N	7	3	Mature	Reasonable		40	B.2	117.682		6.12
						E	4									
						S	3									
						W	7									

104	Quercus robur	15	410			N	5	3	Mature	Reasonable		40	B.2	76.057		4.92
						E	2									
						S	3									
						W	5									
105	Quercus robur	15		400		N	6	2	Mature	Reasonable		40	B.2		551.725	13.25
				380		E	6									
						S	8									
						W	6									
106	Quercus robur	15		390		N	8	3	Mature	Reasonable		40	B.2		551.543	13.25
				390		E	3									
						S	4									
						W	8									
107	Quercus robur	16	300			N	5	5	Mature	Reasonable		40	B.2	40.720		3.60
						E	4									
						S	3									
						W	7									
108	Quercus robur	16	450			N	6	2	Mature	Reasonable		40	B.2	91.621		5.40
						E	4									
						S	4									
						W	8									
109	Quercus robur	16	400			N	7	4	Mature	Reasonable		40	B.2	72.392		4.80
						E	7									
						S	5									
						W	6									
110	Quercus robur	14	300			N	4	3	Mature	Reasonable		40	B.2	40.720		3.60
						E	3									
						S	3									
						W	6									

111	Quercus robur	14	190			N	2	2	Mature	Reasonable		40	B.2	16.333		2.28
						E	2									
						S	2									
						W	2									
112	Quercus robur	14	380			N	2	3	Mature	Reasonable		40	B.2	65.333		4.56
						E	6									
						S	4									
						W	7									
113	Quercus robur	15		210		N	5	3	Mature	Reasonable		40	B.2		346.699	10.50
				200		E	4									
				190		S	3									
						W	9									
114	Quercus robur	14	500			N	5	6	Mature	Reasonable		40	B.2	113.112		6.00
						E	6									
						S	6									
						W	3									
115	Quercus robur	15	480			N	6	4	Mature	Reasonable		40	B.2	104.244		5.76
						E	7									
						S	5									
						W	6									
116	Quercus robur	15		200		N		4	Mature	Reasonable		40	B.2		374.166	10.91
				100		E										
				300		S										
						W										
117	Quercus robur	17	500			N	8	4	Mature	Reasonable		40	B.2	113.112		6.00
						E	5									
						S	6									
						W	8									

118	Betula pendula	100	230			N	2	3	Mature	Reasonable		20	C.2	23.934		2.76
						E	2									
						S	2									
						W	2									
119	Salix caprea	5	260			N	3	3	Mature	Reasonable		20	C.2	30.585		3.12
						E	3									
						S	3									
						W	3									
120	Crataegus monogyna	4	190			N	2	1	Mature	Reasonable		20	C.2	16.333		2.28
						E	2									
						S	2									
						W	2									
121	Quercus robur	4	200			N	3	2	Semi Mature	Reasonable		20	C.2	18.098		2.40
						E	3									
						S	2									
						W	2									
122	Crataegus monogyna	3	200			N	2	2	Mature	Reasonable		20	C.2	18.098		2.40
						E	2									
						S	2									
						W	2									
123	Crataegus monogyna	3	200			N	2	2	Mature	Reasonable		20	C.2	18.098		2.40
						E	2									
						S	2									
						W	2									

Tree Survey Explanatory Notes

- **Measurements/estimates:** All dimensions measures unless otherwise indicated.
- **Species:** I base the species identification on visual observations and list the botanical name
- **Height:** I estimated the average crown height to the nearest metre for individual trees.
- **Spread (SPD):** I estimated to the nearest metre the average crown spread from the centre of the trunk to the tips of the live lateral branches (Cardinal Points).
- **Diameter:** These figures relate to 1.5m above ground level or as per the BS 5837 recommendations and I record them in millimetres with a diameter tape.
- **Life Expectancy:** Remaining Contribution in years.
- **Age Class:** I indicate age class as **OM** = Over mature, **M** = Mature, **EA** = Early Mature **SM** = Semi Mature **Y** = Young
- **Group:** Where trees form cohesive arboricultural features they are identified on the schedule as **Group.1**, **Group. 2** etc and marked on the plan as G.1 etc.
- **Root Protection Area (RPA m2):** This has been capped at 707m², which is equivalent to a circle with a radius of 15 metres or a square with approximately 26 metre sides. Where the linear root protection radius has been capped

* Tree in schedule marked with asterisk were not accessible and dimension have been estimated

TREES FOR REMOVAL				
Category and definition	Criteria			Identification on plan
Category U Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management	- 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 R category trees (i.e. 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 (e.g. Dutch elm disease), or very low quality trees suppressing adjacent trees of better quality NOTE Habitat reinstatement may be appropriate (e.g. R category tree used as a bat roost: installation of bat box in nearby tree).			DARK RED
TREES TO BE CONSIDERED FOR RETENTION				
Category and definition	Criteria - Subcategories			Identification on plan
	1 Mainly arboricultural values	2 Mainly landscape values	3. Mainly cultural values, including conservation	
Category A Those of high quality and value: in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested)	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (e.g. avenues or other arboricultural features assessed as groups)	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	LIGHT GREEN
Category B Those of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20 years is suggested)	Trees that might be included in the high category, but are downgraded because of impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage)	Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal arboricultural features (e.g. trees of moderate quality within an avenue that includes better A category specimens), or trees situated mainly internally to the site, therefore individually having little visual impact on the wider locality	Trees with clearly identifiable conservation or other cultural benefits	MID BLUE
Category C Those of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150mm	Trees not qualifying in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit	Trees with very limited conservation or other cultural benefits	GREY
	NOTE Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation.			