



Arboricultural Method Statement & Tree Protection Measures

LAND AT FELPHAM BOGNOR REGIS WEST SUSSEX

Produced for:
Barratt Homes &
David Wilson Homes

April 2008

tree : fabrik

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1.0 Introduction

- 1.1 This Method Statement provides guidance on the physical protection and appropriate precautionary measures required in order to reduce any significant or detrimental impact on the health or amenity of retained trees.
- 1.2 The contents of the Method Statement is based upon documents submitted in respect of the site layout, tree protection measures recommended in British Standards 5837 (2005) 'Trees in relation to construction', government guidance and current good practice.
- 1.3 This Method Statement should be read in conjunction with the Tree Survey and Protection Plan TF607/TPP/100 sheets 1 to 10 dated April '08 by *tree:fabrik* (Appendix 2). Any discrepancies must be reported to *tree:fabrik* immediately.
- 1.4 There are garages located within the RPA of the Oak trees (161 & 195). These trees are assessed as category 'C' in accordance with BS 5837 (2005). Given that the incursion is minor and that the trees are located adjacent to a drainage ditch, which is likely to have influenced the rooting pattern, the potential impact on health and stability is considered limited and would not merit implementation of specialist construction methods subject to appropriate precautionary measures and tree protection.
- 1.5 The proposed drainage layout by WSP has retained the existing ditch where the Oaks (127, 221, 222 & 223) and in particular two Oaks that are covered by the TPO (127 & 221) are located. The existing flow direction will be maintained and therefore no re-profiling or improvements required. These trees can be safely retained subject to appropriate protection during construction. Similarly, there will be no re-profiling of the ditches adjacent to the linear tree belt (372 to 390) and the tree group (G199, 204 to 207) retained within the central amenity area too.
- 1.6 It is recommended that an experienced and qualified arboricultural consultant be appointed to supervise agreed arboricultural works outlined within this document. Works not supervised by the appointed Arboricultural Consultant are carried out at the clients own risk.
- 1.7 In order for tree and root protection measures to work effectively, all personnel associated with the construction process must be familiar with this Method Statement and the principles of tree protection contained herein and the tree protection plan. A copy of this document and tree protection plan will be retained on site at all times.

- 1.8 Barratt Homes & David Wilson Homes are to include information on the Tree Protection Orders (TPO F/1/07 & TPO 9/67) and required protection measures within the Project Management Plan. This document is issued to all involved parties with the project including subcontractors and designers. Information on the Tree Protection Order and required protection measures will also be provided at site induction and the site office.

2.0 Development Description

- 2.1 The development comprises of construction activities with associated car parking and landscaping.

3.0 Tree Survey

- 3.1 A preliminary arboricultural survey was carried out by *tree:fabrik* Arboricultural Consultants dated June 2006.

SECTION ONE: COMMUNICATION, CONSTRUCTION AND PROTECTION

4.0 General

- 4.1 The primary purpose of the Method Statement is to aid the preservation of retained trees through setting out the appropriate working practices, construction techniques and tree protection measures that are to be adopted when the proposed construction is undertaken in the proximity of trees.
- 4.2 The methodology of this Tree Protection Strategy follows a logical sequence of events. Variations to the sequence could significantly reduce the efficiency of the tree protection measures.
- 4.3 To ensure that the Local Planning Authority Tree Officer has an opportunity to visit the site, the Local Authority is to be given notice in writing 5 full working days prior to the date of commencement of development to check all physical tree protection.
- 4.4 All works within the RPA of any retained trees will be carried out in accordance with the Method Statement.
- 4.5 All damage to protective barriers or accidental damage to trees must be reported to the Site Manager immediately. Works occurring within the vicinity will cease immediately

until adequate tree protection measures are rectified. A record of the damage will be made by the Site Manager and, in consultation with the appointed arboricultural consultant, remediation measures carried out.

- 4.6 It is proposed therefore to phase tree protection through the construction processes as follows:

- Stage 1 Pre-Contract Meeting
- Stage 2 Execute agreed tree works.
- Stage 3 Erection of protective barriers prior to ground works and demolition.
- Stage 4 Installation of temporary road access.
- Stage 5 Construction within RPAs
- Stage 6 Installation of 'no dig' driveways.
- Stage 7 Dismantle protective barriers.

- 4.7 Equally as important as the physical measures of tree protection are the links of communication. The section below should include the details of the relevant parties and individuals that are important in the process of tree preservation at this development site. Such details should be retained by all relevant parties and available on site at all times. It is an undertaking that the relevant parties are advised of any changes in personnel or contractor during the development process.

	Company	Contact	Tel.
Client	Barratt Homes		01489 779200
LPA Tree Officer	TBA		
Project Manager	TBA		
Arboricultural Consultant	Tree:fabrik		01420 593250

5.0 Pre-Contract Meeting

- 5.1 A pre-contract meeting shall be held on site prior to the commencement of any construction works. This shall be attended by the contractor's site manager or agent, and the appointed Arboricultural Consultant. The methods of tree protection outlined in this statement shall be fully discussed at the meeting, so that all aspects of their implementation and sequencing are made clear to all parties. Any clarifications or

modifications to this statement shall be recorded and circulated to all parties in writing. If appropriate, the tree surgery and any other specialist contractors should also attend this meeting.

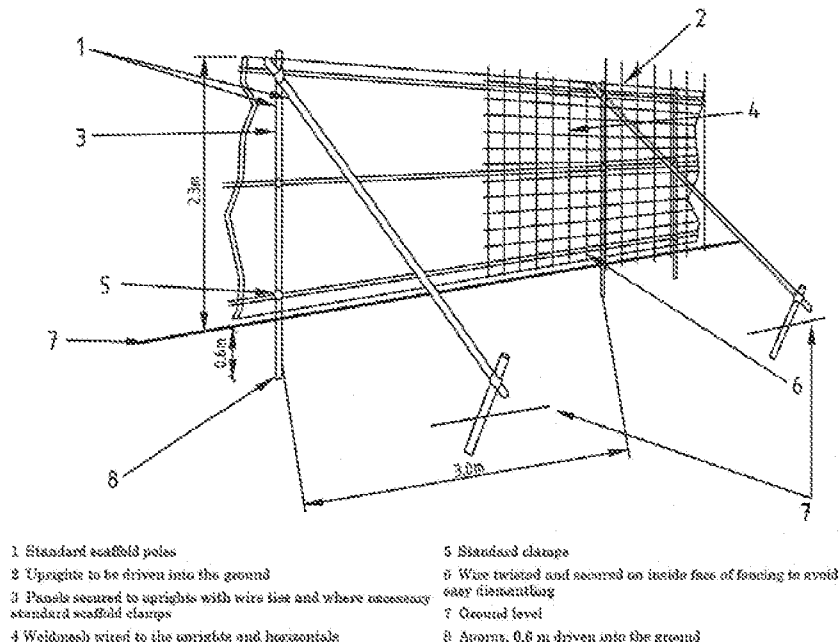
- 5.2 A copy of this Method Statement shall be supplied to all relevant site personnel who have control over any aspect of excavations within the crown spread of any trees to be retained. The contractor will provide adequate instruction on its implementation for all relevant staff.
- 5.3 The Site Manager shall inform the appointed Arboricultural Consultant at the completion of each stage for inspection and a report circulated to all parties and the Local Planning Authority in writing.

6.0 Tree Surgery Works

- 6.1 Selected individual and groups of trees within the site are subject to Tree Preservation Order F/1/07 administered by Arun District Council. In addition, part of the site is covered by Tree Preservation Order number 9 of 1967 administered by Arun District Council. TPO 9 of 1967 is formed by area A1 marked on the TPO Plan and refers to Oak and Ash within the TPO Schedule running from Lindsey Court to New Barn Lane. TPO F/1/07 duplicates the 1967 TPO to some extent. The Tree Survey & Protection Plan TF607/TPP/100 sheets 1 to 10 dated April '08 by *tree:fabrik* (Appendix 2) identifies the trees covered by the above TPOs. However, it is strongly recommended that Local Planning Authority be contacted to clarify which trees and groups are covered by TPO.
- 6.2 All tree works to facilitate access and development must be agreed with the Local Planning Authority and written consent obtained.
- 6.3 All tree works are to be carried out in accordance with BS 3998 Recommendations for tree work and current good arboricultural practice by a qualified and experienced tree contractor.
- 6.4 Trees identified for removal are located throughout the site. The position of the trees to be removed are shown on *tree:fabrik* drawing Tree Protection Plan tf 607/TPP/100 sheets 1 to 10 (Appendix 2) and listed within appendix 5.

7.0 Tree Protection Barriers

- 7.1 Following the completion of facilitative tree works and removal, the tree protection barriers and ground protection will be erected. Details of the preliminary root protection area around each tree are provided within Appendix 1 and the position for barriers is shown on *tree:fabrik* drawing Tree Survey & Protection Plan tf 607/TPP/100 sheets 1 to 10 (Appendix 2). The area excluded from activity by the barriers forms the **Construction Exclusion Zone**.
- 7.2 The position of the barriers is to be marked out on site and agreed at each stage with appropriate representatives from the Contractor. The barriers will be erected **PRIOR** to any works in the vicinity of the trees or the delivery of machinery, materials, plant or equipment to the site or any adjacent land thereto.
- 7.3 Barriers must be fit for purpose and should consist of a scaffold framework comprising of a vertical and horizontal framework, well braced to resist impacts, with vertical tubes spaced at a maximum of 3m. Onto this, weldmesh panels should be securely fixed with wire or scaffold clamps unless similar fencing is agreed with the Local Planning Authority see Detail of Tree Protection Barriers (extract of Fig.2 BS5837 2005) below.



- 7.4 Ground protection for pedestrian movements and scaffolding within the RPA will be constructed in the form of a single thickness of scaffold boards on top of a

compressible layer laid onto a geotextile see Detail of Scaffold within RPA (extract of Fig.3 BS5837 2005) below.

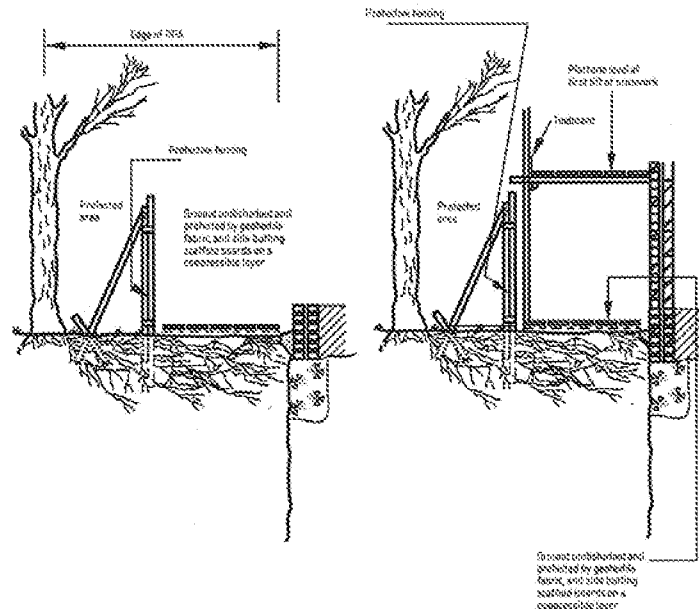


Figure 3 — Scaffolding within the RPA

- 7.5 Ground Protection for Vehicular movements will be formed by a temporary load bearing surface such as Evetrakway (www.evetrakway.co.uk). Any hollows within the existing ground surface will be filled to provide a flat surface. A geotextile material will then be laid within the position shown. The track way will then be laid and secured in place in accordance with manufacturers instructions.
- 7.6 Once the barriers and ground protection has been properly installed and erected in position, the fenced area is to be considered sacrosanct and must not to be removed or altered in any way without prior approval from the Arboricultural Consultant or Local Authority Tree Officer. A record of the position and adequacy of the fence is to be signed off by the Site Manager and Local Planning Authority.
- 7.7 Notices are to be fixed to the outside of the barriers with words such as '**TREE PROTECTION AREA – NO ACCESS AND NO STORAGE OR WORKING WITHIN THIS AREA**'.
- 7.8 The barriers are to remain in position from before site preparation, demolition and ground works until final completion or a time agreed by the Local Authority and Contractor. All personnel using the site including site managers, agents, supervisors, operatives and other relevant personnel are to be informed of the role of the tree protective fences and its importance.

7.9 If 360-degree excavators are to be used during construction, at no time is the excavating arm to encroach over the position of the tree protection fence. Operation must always be in a way that avoids contact with lower branches.

7.10 No fires are to be lit within 10m of the tree protection barriers or crown, whichever is greater.

7.11 Within the Construction Exclusion Zone:

No mechanical or hand excavation

No changes in soil levels

No storage of plant, equipment or materials

No vehicles

No Spillage or discharge of chemical substance, cement washings or other materials

No fires

8.0 Excavation and Utilities

8.1 Utility or drainage runs should be designed not to encroach within the RPA of retained trees using existing service routes where possible, obviating the requirement for new trenches. In the event that excavation is required within the RPA as part of agreed utility and drainage plans, hand tools only must be used in accordance with the guidance provided in National Joint Utility Guidelines Vol. 4 issue 2 dated Nov' 08 (see Appendix 3).

8.2 In the event that roots are required to be pruned, sharp cutting tools are to be used to ensure the minimum damage is caused. Clean cuts can result in the redevelopment of fine roots. Poor untidy cuts can, however, result in root die back and decay. No roots greater than diameters of 25mm are to be pruned without prior agreement with the appointed arboricultural consultant or Local Authority representative.

9.0 Installation of Light Structures

9.1 Within Precautionary Area 2 construction of garages and temporary access bridge agreed within the RPA, must follow the principles of 'no dig' construction methods in accordance with principles set out within the BS 5837 (2005) section 11 paragraph 11.3 'Principles for avoiding tree root damage during construction'. Installation of these light structures should be of a slab foundation or piles as specified by an engineer and laid at or above ground level in order to avoid root severance/disturbance. Prior to

laying of foundations a non porous membrane will be laid to protect the soil from potential toxic effects of concrete. In the case of piling, the smallest practical pile diameter should be used as this reduces the possibility of striking major tree roots. Piles must be sheathed to protect the soil from potential toxic effects of concrete.

- 9.2 Construction shall ideally be undertaken in dry weather when ground is driest and least prone to compaction.
- 9.3 Ground vegetation should be killed using a translocated herbicide such as glyphosate. To prevent severe oxygen depletion in the soil during the process of decomposition, all dead organic material shall be removed.
- 9.4 All major protrusions such as rocks and demolition material shall be removed minimizing ground disturbance. All hollows will be filled with sharp sand.

10.0 Installation of Wooden Footbridges, Garden Boundary Fencing and Paths

- 10.1 Within the RPAs and following completion of practical construction or at a time otherwise agreed with the local planning authority the wooden footbridges and paths can be installed. Footpaths must be laid at or above ground level and aligned to pass between trees and no closer than 1 metre from the base of the trees. Footings for the wooden bridges and garden boundary fencing shall be dug by hand and lined with a non-porous membrane before back filling with concrete. In the event that roots greater than 25mm diameters are exposed during excavations, the hole must be immediately back filled and a new footing/posthole excavated in position where larger roots are absent.
- 10.2 The final surface of the paths may be gravel, paving slabs or brick paviours and should be dry-bedded on the sub-base and joints left unsealed.

11.0 Installation of 'no dig' Driveways

- 11.1 Within Precautionary Area 1 and following completion of practical construction or at a time otherwise agreed with the local planning authority, the temporary surface may be removed and the final surface laid using a 'no dig' construction using a three dimensional cellular confinement system in accordance with the engineers and manufacturers recommendations and the principles laid out in BS5837 (2005) 11.3

Principles for avoiding tree root damage during construction. See Appendix 4: Detail of 'no dig' driveway using three dimensional confinement system.

- 11.2 Construction shall ideally be undertaken in dry weather when ground is driest and least prone to compaction.
- 11.3 Ground vegetation should be killed using a translocated herbicide such as glyphosate. To prevent severe oxygen depletion in the soil during the process of decomposition, all dead organic material shall be removed.
- 11.4 All major protrusions such as rocks and demolition material shall be removed minimizing ground disturbance. All hollows will be filled with sharp sand.
- 11.5 Permeable matting will then be laid and the cellular confinement system laid on top and pegged into place
- 11.6 The cellular confinement system will then be installed in accordance with manufacturers guidelines using 'no fines' aggregate. Edging will be constructed with boards attached to pegs driven into the ground. Pegs should be long enough to give adequate support during construction.
- 11.7 The final surface may be gravel or tarmacadam placed directly on top of the aggregate. Paving slabs or brick paviours should be dry-bedded on the sub-base and joints left unsealed.

12.0 Storage of Materials

- 12.1 All materials for construction purposes should be carefully stored outside the enforced construction exclusion zone.
- 12.2 In the event of any accident or spillage in or adjacent to the protected trees the Client is to immediately stop work in the vicinity and inform the Arboricultural Consultant of the event. The Arboricultural Consultant is to attend site to record the incident and then report it in writing to the Local Authority Tree Officer. Any remedial action required is to be undertaken only following the approval and advice of the Local Authority Tree Officer. In the event of spillage the area is to be secured with sandbags on the line of the tree protection area and measures taken to drain/soak any spillage away from the protected area.

13.0 Landscaping Works

- 13.1 All landscaping will avoid soil re-grading and disturbance within the tree protective areas where possible. If cultivation of the soil and making up of levels is required, cultivation should not exceed 50mm depth and must at all times be by hand. All landscaping works, soft and hard, should be carried out as the last process of development. Any agreed soil re-profiling required to achieve the finished levels around trees will be carried out by hand with General Purpose grade topsoil and under supervision of the appointed arboricultural consultant.

14.0 Tree Protection and Dismantling Protective Barriers

- 14.1 In order to implement final surface treatments it will be necessary to dismantle the protective barriers. Within tree protection distances all works will conform to the principals set in paragraphs 7.1 to 7.11
- 14.2 A minimum of seven days notice will be given to the Local Authority prior to the dismantling of the protective barriers.
- 14.3 Under no circumstances will the soil levels be altered after the protective barriers have been removed.

APPENDIX 1

Root Protection Area

LAND AT FELPHAM, BOGNOR
METHOD STATEMENT

Tree No.	Species	Stem Dia (mm)	Age Class	Remaining contribution (est. years)	Category grading	Root protection area		
						Radius (m)	M ²	Square
1	Hawthorn	540*	M	10 to 20	C1	5.4*	91.6*	9.6*
2	Blackthorn	150e	MA	<10	R	1.8	10.2	3.2
3	Hawthorn	150*	M	10 to 20	C1	1.5*	7.1*	2.7*
4	Oak	340e	MA	20 to 40	C1	4.1	52.3	7.2
5	Hawthorn	200e	M	10 to 20	C1	2.4	18.1	4.3
6	English Elm	600*	Y	<10	R	6*	113.1*	10.6*
7	Hybrid Black Poplar	1600*	M	10 to 20	C1	15*	707*	26*
8	Hybrid Black Poplar	1800*	M	10 to 20	C1	15*	707*	26*
9	Hybrid Black Poplar	1800*	M	10 to 20	C1	15*	707*	26*
G10	6x Hybrid Black Poplar	200ave	MA	10 to 20	C1	2.4	18.1	4.3
11	Hawthorn	190e	M	10 to 20	C1	2.3	16.3	4
12	Hybrid Black Poplar	960e	M	10 to 20	C1	11.5	417	20.4
13	Monterey Cypress	860	M	<10	R	10.3	334.6	18.3
14	Hybrid Black Poplar	870e	M	10 to 20	C1	10.4	342.5	18.5
15	English Elm	220ave	Y	<10	R	2.6	21.9	4.7
16	Monterey Cypress	550	MA	20 to 40	C1	6.6	136.9	11.7
17	Hybrid Black Poplar	750*	MA	10 to 20	C1	7.5*	176.7*	13.3*
18	Cherry	190e	M	10 to 20	C1	2.3	16.3	4
19	Bay	210*	MA	10 to 20	C1	2.1*	13.9*	3.7*
20	English Oak	1200*	M	10 to 20	C1	12*	452.4*	21.3*
21	Ash	900*	MA	<10	R	9*	254.5*	16*
22	Field Maple	350*	MA	<10	R	3.5*	38.5*	6.2*
23	English Oak	520	MA	10 to 20	C1	6.2	122.3	11.1
24	English Oak	960*	M	20 to 40	B2	9.6*	289.6*	17*
25	English Oak	1080*	M	20 to 40	B2	10.8*	366.5*	19.1*
G26	70% Field Maple, 20% Hawthorn, 2% Ash, 2% Hazel, 1% Elder	200ave	M	10 to 20	C2	2.4	18.1	4.3
27	Field Maple	220e	M	10 to 20	C1	2.6	21.9	4.7
G28	2x Field Maple	400ave	M	10 to 20	C2	4.8	72.4	8.5
G29	2x Field Maple	420ave	M	10 to 20	C2	5	79.8	8.9
30	English Oak	550e	M	20 to 40	B2	6.6	136.9	11.7
31	2x English Oak	410ave	MA	20 to 40	B2	4.9	76.1	8.7

LAND AT FELPHAM, BOGNOR
METHOD STATEMENT

Tree No.	Species	Stem Dia (mm)	Age Class	Remaining contribution (est. years)	Category grading	Root protection area		
						Radius (m)	M ²	Square
G32	30% Blackthorn, 25% Hazel, 25% Elder, 10% Hawthorn, 5% Field Maple, 5% Grey Willow	160ave	M	10 to 20	C2	1.9	11.6	3.4
33	English Oak	610e	M	20 to 40	B2	7.3	168.4	13
34	English Oak	990	M	20 to 40	B2	11.9	443.4	21.1
35	40% Hawthorn, 40% Blackthorn, 20% Elder	140ave	M	10 to 20	C2	1.7	8.9	3
36	Monterey Cypress	1180	M	10 to 20	C1	14.2	630	25.1
37	Oak	400e	Y	10 to 20	C1	4.8	72.4	8.5
38	Monterey Cypress	1330	M	10 to 20	C1	15	707	26
39	Hybrid Black Poplar	400e	MA	20 to 40	C1	4.8	72.4	8.5
40	Hybrid Black Poplar	430e	MA	10 to 20	C1	5.2	83.7	9.1
41	Hybrid Black Poplar	860*	M	10 to 20	C1	8.6*	232.4*	15.2*
42	Hybrid Black Poplar	400e	MA	20 to 40	C1	4.8	72.4	8.5
43	4x hybrid Black Poplar	220ave	MA	20 to 40	C2	2.6	21.9	4.7
44	Monterey Cypress	1010	M	<10	R	12.1	461.5	21.5
45	Oak	340	MA	10 to 20	C1	4.1	52.3	7.2
46	Monterey Cypress	1130*	M	10 to 20	C1	11.3*	401.2*	20*
47	Oak	200	Y	40+	C1	2.4	18.1	4.3
48	Oak	760*	MA	10 to 20	C1	7.6*	181.5*	13.5*
49	Hybrid Black Poplar	680*	MA	10 to 20	C1	6.8*	145.3*	12.1*
50	Monterey Cypress	1100*	M	10 to 20	C1	11*	380.2*	19.5*
51	Oak	590	MA	20 to 40	B2	7.1	157.5	12.5
52	Monterey Cypress	870	M	<10	R	10.4	342.5	18.5
53	Hybrid Black Poplar	940*	MA	10 to 20	C1	9.4*	277.6*	16.7*
54	Oak	580	MA	20 to 40	B2	7	152.2	12.3
55	Oak	300	Y	<10	R	3.6	40.7	6.4
56	Oak	380	Y	<10	R	4.6	65.3	8.1
57	Oak	300	Y	20 to 40	C1	3.6	40.7	6.4

LAND AT FELPHAM, BOGNOR
METHOD STATEMENT

Tree No.	Species	Stem Dia (mm)	Age Class	Remaining contribution (est. years)	Category grading	Root protection area		
						Radius (m)	M ²	Square
G58	50% Hawthorn, 40% Blackthorn & 10% Elder	180ave	M	10 to 20	C2	2.2	14.7	3.8
59	Hybrid Black Poplar	500e	M	<10	R	6	113.1	10.6
60	Monterey Cypress	1100	M	<10	R	13.2	547.5	23.4
61	Monterey Cypress	940	M	<10	R	11.3	399.8	20
62	Oak	340	Y	40+	C1	4.1	52.3	7.2
63	Hybrid Black Poplar	1600*	M	10 to 20	C1	15*	707*	26*
64	Monterey Cypress	960	M	10 to 20	C1	11.5	417	20.4
65	Hybrid Black Poplar	960	M	10 to 20	C1	11.5	417	20.4
66	Oak	250	Y	20 to 40	C1	3	28.3	5.3
67	Oak	300	Y	10 to 20	C1	3.6	40.7	6.4
68	Hybrid Black Poplar	760	M	<10	R	9.1	261.3	16.2
69	Hybrid Black Poplar	1200*	M	10 to 20	C1	12*	452.4*	21.3*
70	Oak	200	Y	20 to 40	C1	2.4	18.1	4.3
71	Oak	330	Y	<10	R	4	49.3	7
72	Hybrid Black Poplar	840	M	<10	R	10.1	319.2	17.9
73	Oak	2100*	M	20 to 40	B2	15*	707*	26*
74	Oak	1200*	M	20 to 40	B2	12*	452.4*	21.3*
75	Oak	500e	M	20 to 40	B2	6	113.1	10.6
G76	10% Hazel, 25% Blackthorn, 20% Elder, 25% Hawthorn, 20% Grey Willow	150ave	M	10 to 20	C1	1.8	10.2	3.2
77	4x Common Ash	450ave	MA	10 to 20	C2	5.4	91.6	9.6
G78	30% Hazel, 5% Field Maple, 5% Elder, 30% Blackthorn, 30% Hawthorn	200ave	M	10 to 20	C2	2.4	18.1	4.3
79	Scots Pine	400e	MA	<10	R	4.8	72.4	8.5
80	Purple Sycamore	550e	M	20 to 40	B1	6.6	136.9	11.7
81	Horse Chestnut	280e	MA	<10	R	3.4	35.5	6
82	Maritime Pine	550e	M	20 to 40	B1	6.6	136.9	11.7
83	Purple Sycamore	500e	M	20 to 40	B1	6	113.1	10.6

LAND AT FELPHAM, BOGNOR
METHOD STATEMENT

Tree No.	Species	Stem Dia (mm)	Age Class	Remaining contribution (est. years)	Category grading	Root protection area		
						Radius (m)	M ²	Square
84	Scots Pine	480e	M	<10	R	5.8	104.2	10.2
85	Maritime Pine	800e	M	20 to 40	B1	9.6	289.6	17
86	Maritime Pine	300e	MA	<10	R	3.6	40.7	6.4
87	Purple Sycamore	360e	MA	<10	R	4.3	58.6	7.7
88	Maritime Pine	800e	M	20 to 40	B1	9.6	289.6	17
G89	6% Laburnum, 2% Cypress, 2% Holly, 40% Hawthorn, 40% Blackthorn	180ave	MA	10 to 20	C2	2.2	14.7	3.8
G90	20% Hazel, 40% Elder, 10% Blackthorn, 20% Field Maple, 10% Hawthorn	160ave	MA	10 to 20	C2	1.9	11.6	3.4
91	Field Maple	600*	M	10 to 20	C1	6*	113.1*	10.6*
92	Common Ash	540e	MA	10 to 20	C1	6.5	131.9	11.5
G93	25% Hawthorn, 25% Blackthorn, 25% Field Maple, 25% Grey Willow	ave	MA	10 to 20	C2	0	0	0
94	Common Ash	360e	M	<10	R	4.3	58.6	7.7
95	Oak	320e	Y	40+	C1	3.8	46.3	6.8
96	Oak	580e	M	20 to 40	C1	7	152.2	12.3
97	Common Ash	600e	M	20 to 40	B1	7.2	162.9	12.8
98	Oak	600e	MA	40+	C1	7.2	162.9	12.8
G99	2x Common Ash	400ave	MA	10 to 20	C2	4.8	72.4	8.5
100	Oak	380e	Y	10 to 20	C1	4.6	65.3	8.1
101	Common Ash	600*	Y	<10	R	6*	113.1*	10.6*
102	Common Ash	300*	Y	<10	R	3*	28.3*	5.3*
G103	10% Elder, 60% Hazel, 20% Hawthorn, 10% Blackthorn	400ave	M	10 to 20	C2	4.8	72.4	8.5
104	Oak	430e	MA	40+	B2	5.2	83.7	9.1
G105	14x Field Maple	340ave	M	10 to 20	C2	4.1	52.3	7.2
G106	11x Field Maple	340ave	M	10 to 20	C2	4.1	52.3	7.2

LAND AT FELPHAM, BOGNOR
METHOD STATEMENT

Tree No.	Species	Stem Dia (mm)	Age Class	Remaining contribution (est. years)	Category grading	Root protection area		
						Radius (m)	M ²	Square
G107	30% Grey Willow, 30% Blackthorn, 20% Walnut, 20% Hawthorn	180ave	MA	<10	R	2.2	14.7	3.8
108	Oak	440e	MA	20 to 40	C1	5.3	87.6	9.4
109	Common Ash	430e	MA	20 to 40	C1	5.2	83.7	9.1
110	Oak	400e	MA	40+	C1	4.8	72.4	8.5
111	Common Ash	400*	MA	<10	R	4*	50.3*	7.1*
112	Common Ash	700*	MA	<10	R	7*	154*	12.4*
G113	25% Hazel, 25% Hawthorn, 25% Blackthorn, 25% Elm	150ave	M	10 to 20	C2	1.8	10.2	3.2
114	Common Ash	240e	Y	20 to 40	C1	2.9	26.1	5.1
115	Oak	200e	Y	40+	C1	2.4	18.1	4.3
116	Oak	180e	Y	10 to 20	C1	2.2	14.7	3.8
117	Oak	180*	Y	10 to 20	C1	1.8*	10.2*	3.2*
118	Common Ash	2000*	M	10 to 20	C1	15*	707*	26*
G119	11x Field Maple	450ave	M	10 to 20	C1	5.4	91.6	9.6
H120	Hazel, Hawthorn, Blackthorn	140ave	M	10 to 20	C2	1.7	8.9	3
121	Common Ash	520e	M	10 to 20	C1	6.2	122.3	11.1
122	Common Ash	210e	MA	<10	R	2.5	20	4.5
123	Common Ash	700*	MA	10 to 20	C1	7*	154*	12.4*
124	Oak	480e	MA	10 to 20	C1	5.8	104.2	10.2
G125	30% Grey Willow, 30% Blackthorn, 20% Hawthorn, 10% Hazel, 10% Crack Willow	190ave	M	10 to 20	C2	2.3	16.3	4
126	Common Ash	160e	Y	10 to 20	C1	1.9	11.6	3.4
127	Oak	1800*	M	40+	B1	15*	707*	26*
H128	10% Hazel, 45% Hawthorn, 45% Blackthorn	180ave	M	10 to 20	C2	2.2	14.7	3.8
G129	16x Aspen	200ave	MA	10 to 20	C2	2.4	18.1	4.3
130	Field Maple	800*	M	10 to 20	C1	8*	201.1*	14.2*
131	Field Maple	480*	M	10 to 20	C1	4.8*	72.4*	8.5*
132	Field Maple	900*	M	10 to 20	C1	9*	254.5*	16*
133	Common Ash	900*	MA	10 to 20	C1	9*	254.5*	16*

LAND AT FELPHAM, BOGNOR
METHOD STATEMENT

Tree No.	Species	Stem Dia (mm)	Age Class	Remaining contribution (est. years)	Category grading	Root protection area		
						Radius (m)	M ²	Square
134	Common Ash	380*	MA	10 to 20	C1	3.8*	45.4*	6.7*
G135	3x Blackthorn	100ave	MA	10 to 20	C1	1.2	4.5	2.1
136	Crab Apple	180*	M	10 to 20	C1	1.8*	10.2*	3.2*
137	Leyland Cypress	370*	MA	10 to 20	C1	3.7*	43*	6.6*
138	Himalayan Birch	250*	MA	10 to 20	C1	2.5*	19.6*	4.4*
139	Norway Maple 'Crimson King'	240e	MA	10 to 20	C1	2.9	26.1	5.1
140	Himalayan Birch	200*	MA	10 to 20	C1	2*	12.6*	3.5*
141	Holly	200*	MA	<10	R	2*	12.6*	3.5*
142	Hawthorn	200e	M	<10	R	2.4	18.1	4.3
143	Hazel	210ave	M	10 to 20	C1	2.5	20	4.5
144	Hawthorn	380*	M	<10	R	3.8*	45.4*	6.7*
145	Hawthorn	250*	M	<10	R	2.5*	19.6*	4.4*
146	Oak	580*	MA	10 to 20	C1	5.8*	105.7*	10.3*
147	Oak	1500*	M	10 to 20	C1	15*	707*	26*
148	Oak	1000e	M	20 to 40	B1	12	452.4	21.3
149	Oak	1200*	M	20 to 40	B1	12*	452.4*	21.3*
150	Field Maple	720*	M	10 to 20	C1	7.2*	162.9*	12.8*
151	Hawthorn	180e	M	10 to 20	C1	2.2	14.7	3.8
152	Hawthorn	520*	M	<10	R	5.2*	85*	9.2*
153	Field Maple	250	M	<10	R	3	28.3	5.3
154	Common Ash	680e	M	<10	R	8.2	209.2	14.5
H155	Hawthorn	150ave	M	10 to 20	C2	1.8	10.2	3.2
156	Common Ash	520e	M	<10	R	6.2	122.3	11.1
157	Field Maple	310e	M	<10	R	3.7	43.5	6.6
158	Field Maple	220e	MA	10 to 20	C1	2.6	21.9	4.7
159	Common Ash	400e	MA	20 to 40	B1	4.8	72.4	8.5
G160	2x Field Maple, 2x Blackthorn	170ave	MA	10 to 20	C2	2	13.1	3.6
161	Oak	580e	MA	10 to 20	C1	7	152.2	12.3
162	Field Maple	400e	M	10 to 20	C1	4.8	72.4	8.5
163	Field Maple	400e	M	10 to 20	C1	4.8	72.4	8.5
164	Common Ash	550e	M	<10	R	6.6	136.9	11.7
165	Field Maple	360e	M	<10	R	4.3	58.6	7.7
166	Field Maple	360e	M	<10	R	4.3	58.6	7.7
167	Common Ash	680e	M	10 to 20	C1	8.2	209.2	14.5
168	Oak	610e	M	10 to 20	C1	7.3	168.4	13
169	Field Maple	310e	M	10 to 20	C1	3.7	43.5	6.6
170	Hawthorn	400*	M	<10	R	4*	50.3*	7.1*
171	Field Maple	380e	M	10 to 20	C1	4.6	65.3	8.1

LAND AT FELPHAM, BOGNOR
METHOD STATEMENT

Tree No.	Species	Stem Dia (mm)	Age Class	Remaining contribution (est. years)	Category grading	Root protection area		
						Radius (m)	M ²	Square
172	Common Ash	820e	M	10 to 20	C1	9.8	304.2	17.4
173	Hawthorn	230e	M	<10	R	2.8	23.9	4.9
174	Oak	780e	M	20 to 40	B1	9.4	275.3	16.6
175	Oak	280e	Y	<10	R	3.4	35.5	6
176	Field Maple	480*	M	10 to 20	C1	4.8*	72.4*	8.5*
177	Field Maple	450*	M	10 to 20	C1	4.5*	63.6*	8*
178	Field Maple	600*	M	10 to 20	C1	6*	113.1*	10.6*
179	Field Maple	250e	M	<10	R	3	28.3	5.3
180	Oak	680e	M	10 to 20	C1	8.2	209.2	14.5
181	Field Maple	460e	M	10 to 20	C1	5.5	95.7	9.8
182	Hazel	150*	M	10 to 20	C1	1.5*	7.1*	2.7*
183	Field Maple	430*	M	10 to 20	C1	4.3*	58.1*	7.6*
184	Field Maple	260e	M	10 to 20	C1	3.1	30.6	5.5
185	Field Maple	360e	M	10 to 20	C1	4.3	58.6	7.7
186	Hawthorn	160e	M	10 to 20	C1	1.9	11.6	3.4
187	Field Maple	280e	M	10 to 20	C1	3.4	35.5	6
188	Oak	530e	M	10 to 20	C1	6.4	127.1	11.3
189	Field Maple	500*	M	10 to 20	C1	5*	78.6*	8.9*
190	Hawthorn	130e	M	10 to 20	C1	1.6	7.6	2.8
191	Hawthorn	180e	M	10 to 20	C1	2.2	14.7	3.8
192	Blackthorn	90e	Y	10 to 20	C1	1.1	3.7	1.9
193	Blackthorn	90e	MA	10 to 20	C1	1.1	3.7	1.9
G194	3x Hawthorn	150ave	M	10 to 20	C2	1.8	10.2	3.2
195	Oak	520e	M	10 to 20	C1	6.2	122.3	11.1
196	Common Ash	320e	MA	<10	R	3.8	46.3	6.8
197	Common Ash	1700*	MA	10 to 20	C1	15*	707*	26*
198	Common Ash	1400*	M	10 to 20	C1	14*	615.8*	24.8*
G199	5% Hazel, 30% Hawthorn, 30% Blackthorn, 30% Field Maple, 5% Grey Willow	180ave	M	10 to 20	C2	2.2	14.7	3.8
200	Field Maple	370e	M	10 to 20	C1	4.4	61.9	7.9
201	Field Maple	370e	M	10 to 20	C1	4.4	61.9	7.9
202	Common Ash	1900*	M	10 to 20	C1	15*	707*	26*
203	Hawthorn	600*	M	<10	R	6*	113.1*	10.6*
204	Common Ash	1200*	M	10 to 20	C1	12*	452.4*	21.3*
205	Oak	760e	M	20 to 40	C1	9.1	261.3	16.2
206	Common Ash	310e	MA	10 to 20	C1	3.7	43.5	6.6
207	Common Ash	1600*	M	10 to 20	C1	15*	707*	26*
208	Common Ash	150e	Y	20 to 40	C1	1.8	10.2	3.2
209	Common Ash	760*	M	10 to 20	C1	7.6*	181.5*	13.5*
210	Common Ash	760*	M	10 to 20	C1	7.6*	181.5*	13.5*

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METHOD STATEMENT

Tree No.	Species	Stem Dia (mm)	Age Class	Remaining contribution (est. years)	Category grading	Root protection area		
						Radius (m)	M ²	Square
211	Common Ash	580*	MA	10 to 20	C1	5.8*	105.7*	10.3*
212	Common Ash	540*	MA	<10	R	5.4*	91.6*	9.6*
213	Common Ash	1600*	M	10 to 20	C1	15*	707*	26*
214	Oak	670e	M	20 to 40	C1	8	203.1	14.3
215	Oak	600e	M	10 to 20	C1	7.2	162.9	12.8
216	Common Ash	340e	MA	<10	R	4.1	52.3	7.2
G217	30% Hawthorn, 15% Elder, 15% Field Maple, 10% Grey Willow, 30% Blackthorn	150ave	M	10 to 20	C2	1.8	10.2	3.2
218	Common Ash	410e	M	<10	R	4.9	76.1	8.7
219	Common Ash	360e	M	10 to 20	C1	4.3	58.6	7.7
220	Walnut	180e	Y	20 to 40	C1	2.2	14.7	3.8
221	Oak	2400*	M	20 to 40	B1	15*	707*	26*
222	Oak	400e	MA	<10	R	4.8	72.4	8.5
223	Oak	1600*	M	10 to 20	C1	15*	707*	26*
224	Purple Leaf Plum	240	MA	10 to 20	C1	2.9	26.1	5.1
225	Purple Leaf Plum	240	MA	10 to 20	C1	2.9	26.1	5.1
226	Japanese Cherry	190	MA	10 to 20	C1	2.3	16.3	4
227	Japanese Cherry	190	MA	10 to 20	C1	2.3	16.3	4
228	Japanese Cherry	440	MA	10 to 20	C1	5.3	87.6	9.4
229	Japanese Cherry	240	MA	10 to 20	C1	2.9	26.1	5.1
230	Japanese Cherry	220	MA	<10	R	2.6	21.9	4.7
231	Rowan	120	M	10 to 20	C1	1.4	6.5	2.5
232	Japanese Cherry	90	Y	10 to 20	C1	1.1	3.7	1.9
233	Holm Oak	280e	Y	20 to 40	C1	3.4	35.5	6
234	Box Elder	380e	M	20 to 40	C1	4.6	65.3	8.1
235	Maple	280e	MA	20 to 40	C1	3.4	35.5	6
236	Field Maple	340e	MA	10 to 20	C1	4.1	52.3	7.2
237	Sycamore	450*	M	20 to 40	C1	4.5*	63.6*	8*
238	Maple	130e	Y	10 to 20	C1	1.6	7.6	2.8
239	Sycamore	210e	MA	20 to 40	C1	2.5	20	4.5
240	Maple	140*	Y	10 to 20	C1	1.4*	6.2*	2.5*
241	Norway Maple	300*	MA	<10	R	3*	28.3*	5.3*
242	Field Maple	250*	MA	<10	R	2.5*	19.6*	4.4*
243	Sycamore	400*	M	20 to 40	C1	4*	50.3*	7.1*
244	Maple	210*	Y	10 to 20	C1	2.1*	13.9*	3.7*
245	Field Maple	380*	MA	20 to 40	C1	3.8*	45.4*	6.7*
246	Horse Chestnut	150e	Y	<10	R	1.8	10.2	3.2
247	Maple	460*	MA	10 to 20	C1	4.6*	66.5*	8.2*

LAND AT FELPHAM, BOGNOR
METHOD STATEMENT

Tree No.	Species	Stem Dia (mm)	Age Class	Remaining contribution (est. years)	Category grading	Root protection area		
						Radius (m)	M ²	Square
248	Norway Maple	150e	Y	10 to 20	C1	1.8	10.2	3.2
249	Norway Maple	140e	Y	40+	C1	1.7	8.9	3
250	Norway Maple	200*	Y	10 to 20	C1	2*	12.6*	3.5*
H251	Hawthorn	70ave	Y	10 to 20	C2	0.8	2.2	1.5
G252	30% Blackthorn, 5% Spruce, 5% Leyland Cypress, 5% Cherry, 30% Grey Willow, 25% Dogwood	240ave	MA	10 to 20	C2	2.9	26.1	5.1
G253	4x Field Maple	400ave	MA	10 to 20	C2	4.8	72.4	8.5
254	White Willow	660e	M	20 to 40	C1	7.9	197.1	14
255	Oak	450*	MA	<10	R	4.5*	63.6*	8*
256	Oak	480*	MA	10 to 20	C1	4.8*	72.4*	8.5*
257	White Willow	690*	M	<10	R	6.9*	149.6*	12.2*
258	Common Ash	440e	MA	<10	R	5.3	87.6	9.4
259	Common Ash	500*	MA	10 to 20	C1	5*	78.6*	8.9*
260	Norway Maple	320*	MA	10 to 20	C1	3.2*	32.2*	5.7*
261	Common Ash	490e	MA	10 to 20	C1	5.9	108.6	10.4
262	Apple	160e	MA	<10	R	1.9	11.6	3.4
263	White Willow	900*	M	<10	R	9*	254.5*	16*
264	Oak	350e	Y	20 to 40	C1	4.2	55.4	7.4
265	Common Ash	540e	MA	10 to 20	C1	6.5	131.9	11.5
266	Common Ash	640*	MA	10 to 20	C1	6.4*	128.7*	11.3*
267	White Willow	1100*	M	10 to 20	C1	11*	380.2*	19.5*
268	White Willow	1000*	M	10 to 20	C1	10*	314.2*	17.7*
269	Norway Maple	360	MA	10 to 20	C1	4.3	58.6	7.7
270	Common Ash	360	MA	<10	R	4.3	58.6	7.7
271	Norway Maple	410	MA	20 to 40	C1	4.9	76.1	8.7
272	Maple	340	MA	10 to 20	C1	4.1	52.3	7.2
273	White Willow	650*	M	10 to 20	C1	6.5*	132.7*	11.5*
274	Oak	430	Y	40+	B1	5.2	83.7	9.1
275	Norway Maple	390	MA	20 to 40	B1	4.7	68.8	8.3
276	Norway Maple	350	MA	20 to 40	B1	4.2	55.4	7.4
277	Norway Maple	300	MA	20 to 40	B1	3.6	40.7	6.4
278	Norway Maple	250	MA	20 to 40	B1	3	28.3	5.3
279	Norway Maple	370	MA	20 to 40	B1	4.4	61.9	7.9

LAND AT FELPHAM, BOGNOR
METHOD STATEMENT

Tree No.	Species	Stem Dia (mm)	Age Class	Remaining contribution (est. years)	Category grading	Root protection area		
						Radius (m)	M ²	Square
280	White Poplar	600	M	10 to 20	C1	7.2	162.9	12.8
281	Leyland Cypress	610e	M	10 to 20	C1	7.3	168.4	13
282	Norway Maple	120*	Y	<10	R	1.2*	4.5*	2.1*
283	Field Maple	200*	MA	10 to 20	C1	2*	12.6*	3.5*
284	Norway Maple	180e	MA	20 to 40	C1	2.2	14.7	3.8
285	Hybrid Black Poplar	430e	MA	20 to 40	B1	5.2	83.7	9.1
286	Norway Maple	360*	MA	10 to 20	C1	3.6*	40.7*	6.4*
287	Horse Chestnut	350	Y	20 to 40	C1	4.2	55.4	7.4
288	Maple	400*	MA	10 to 20	C1	4*	50.3*	7.1*
289	Field Maple	200*	MA	10 to 20	C1	2*	12.6*	3.5*
290	Maple	140e	Y	<10	R	1.7	8.9	3
291	Maple	350e	MA	<10	R	4.2	55.4	7.4
292	Leyland Cypress	460e	M	10 to 20	C1	5.5	95.7	9.8
293	Hawthorn	120*	Y	<10	R	1.2*	4.5*	2.1*
294	Norway Maple	340e	MA	20 to 40	C1	4.1	52.3	7.2
295	Hawthorn	160e	MA	10 to 20	C1	1.9	11.6	3.4
296	Common Ash	300e	MA	<10	R	3.6	40.7	6.4
297	Norway Maple	360e	MA	10 to 20	C1	4.3	58.6	7.7
298	Field Maple	360*	MA	10 to 20	C1	3.6*	40.7*	6.4*
299	Lime	150e	Y	20 to 40	C1	1.8	10.2	3.2
300	Maple	200e	MA	<10	R	2.4	18.1	4.3
301	Common Ash	340e	MA	10 to 20	C1	4.1	52.3	7.2
302	Sycamore	360e	MA	20 to 40	C1	4.3	58.6	7.7
303	Sycamore	300e	MA	10 to 20	C1	3.6	40.7	6.4
304	Common Ash	280e	MA	20 to 40	C1	3.4	35.5	6
305	Sycamore	250e	MA	10 to 20	C1	3	28.3	5.3
306	Common Ash	480*	MA	10 to 20	C1	4.8*	72.4*	8.5*
307	Norway Maple	400e	MA	<10	R	4.8	72.4	8.5
308	Cherry	320	M	10 to 20	C1	3.8	46.3	6.8
309	Whitebeam	380	M	10 to 20	C1	4.6	65.3	8.1

LAND AT FELPHAM, BOGNOR
METHOD STATEMENT

Tree No.	Species	Stem Dia (mm)	Age Class	Remaining contribution (est. years)	Category grading	Root protection area		
						Radius (m)	M ²	Square
G310	5% Field Maple, 20% Hawthorn, 10% Sycamore, 20% Blackthorn, 5% Oak, 5% Ash, 5% Hazel, 10% Elder, 20% Grey Willow	170ave	MA	20 to 40	B2	2	13.1	3.6
G311	40% Hawthorn, 40% Blackthorn, 10% Hazel, 10% Elder	100ave	MA	10 to 20	C2	1.2	4.5	2.1
G312	5% Field Maple, 20% Hawthorn, 30% Blackthorn, 5% Hazel, 10% Elder, 20% Grey Willow, 10% Dogwood	110ave	MA	10 to 20	C2	1.3	5.5	2.3
313	Hawthorn	220e	M	<10	R	2.6	21.9	4.7
314	Oak	2000*	M	10 to 20	C1	15*	707*	26*
G315	11x Field Maple	360ave	M	10 to 20	C2	4.3	58.6	7.7
G316	4x Beech	250ave	Y	10 to 20	C2	3	28.3	5.3
H317	Hawthorn, Cypress	30ave	MA	10 to 20	C2	0.4	0.4	0.6
318	Tree of Heaven	220e	MA	10 to 20	C1	2.6	21.9	4.7
319	Common Ash	2000*	M	10 to 20	C1	15*	707*	26*
G320	20% Hawthorn, 15% Blackthorn, 5% Elder, 60% Grey Willow	150ave	M	10 to 20	C2	1.8	10.2	3.2
321	Common Ash	700*	MA	10 to 20	C1	7*	154*	12.4*
322	Common Ash	600*	MA	10 to 20	C1	6*	113.1*	10.6*
323	Sycamore	800*	M	10 to 20	C1	8*	201.1*	14.2*
324	Sycamore	410e	M	10 to 20	C1	4.9	76.1	8.7
325	Sycamore	600*	MA	<10	R	6*	113.1*	10.6*
326	Common Ash	1400*	MA	10 to 20	C1	14*	615.8*	24.8*
327	Common Ash	450e	MA	10 to 20	C1	5.4	91.6	9.6
328	Crack Willow	2000*	M	10 to 20	C1	15*	707*	26*
329	Common Ash	200e	MA	10 to 20	C1	2.4	18.1	4.3

LAND AT FELPHAM, BOGNOR
METHOD STATEMENT

Tree No.	Species	Stem Dia (mm)	Age Class	Remaining contribution (est. years)	Category grading	Root protection area		
						Radius (m)	M ²	Square
330	White Poplar	380e	MA	10 to 20	C1	4.6	65.3	8.1
331	White Poplar	380e	MA	10 to 20	C1	4.6	65.3	8.1
332	Common Ash	250e	MA	10 to 20	C1	3	28.3	5.3
333	Oak	500e	MA	10 to 20	C1	6	113.1	10.6
334	Common Ash	500*	MA	10 to 20	C1	5*	78.6*	8.9*
335	White Poplar	490e	MA	10 to 20	C1	5.9	108.6	10.4
336	White Poplar	600*	MA	<10	R	6*	113.1*	10.6*
337	Sycamore	950*	M	10 to 20	C1	9.5*	283.6*	16.8*
338	White Poplar	480e	MA	10 to 20	C1	5.8	104.2	10.2
339	Field Maple	480e	M	10 to 20	C1	5.8	104.2	10.2
340	Common Ash	2000*	M	10 to 20	C1	15*	707*	26*
341	Sycamore	280	MA	20 to 40	C1	3.4	35.5	6
342	Common Ash	360	MA	10 to 20	C1	4.3	58.6	7.7
343	Common Ash	350	MA	10 to 20	C1	4.2	55.4	7.4
344	Common Ash	350	MA	10 to 20	C1	4.2	55.4	7.4
345	Field Maple	350	M	<10	R	4.2	55.4	7.4
346	Common Ash	400	MA	10 to 20	C1	4.8	72.4	8.5
347	Common Ash	1100*	M	10 to 20	C1	11*	380.2*	19.5*
348	Oak	540e	MA	20 to 40	C1	6.5	131.9	11.5
349	Common Ash	580e	M	10 to 20	C1	7	152.2	12.3
350	Common Ash	500e	M	<10	R	6	113.1	10.6
351	Common Ash	350*	Y	10 to 20	C1	3.5*	38.5*	6.2*
352	Scots Pine	300e	MA	<10	R	3.6	40.7	6.4
353	Common Ash	600*	MA	<10	R	6*	113.1*	10.6*
354	Oak	500e	MA	10 to 20	C1	6	113.1	10.6
355	Small Leaf Lime	200e	Y	40+	C1	2.4	18.1	4.3
356	Small Leaf Lime	230e	Y	10 to 20	C1	2.8	23.9	4.9
357	Common Ash	150e	MA	40+	C1	1.8	10.2	3.2
G358	40% Hawthorn, 10% Hazel 10% Elder, 40% Grey Willow	100ave	M	10 to 20	C2	1.2	4.5	2.1
359	Common Ash	130e	Y	40+	C1	1.6	7.6	2.8
360	Alder	160e	Y	10 to 20	C1	1.9	11.6	3.4
361	Alder	150e	Y	10 to 20	C1	1.8	10.2	3.2
362	Hornbeam	160e	Y	20 to 40	C1	1.9	11.6	3.4
363	Alder	150e	Y	20 to 40	C1	1.8	10.2	3.2
364	Common Ash	170e	Y	40+	C1	2	13.1	3.6
365	Hornbeam	170e	Y	40+	C1	2	13.1	3.6

LAND AT FELPHAM, BOGNOR
METHOD STATEMENT

Tree No.	Species	Stem Dia (mm)	Age Class	Remaining contribution (est. years)	Category grading	Root protection area		
						Radius (m)	M ²	Square
366	Crack Willow	1100*	M	10 to 20	C1	11*	380.2*	19.5*
367	Crack Willow	1100*	M	10 to 20	C1	11*	380.2*	19.5*
G368	10% Hawthorn, 10% Hazel 10% Elder, 20% Grey Willow, 20% Field Maple, 10% Alder, 10% Sycamore, 10% Blackthorn	140ave	MA	10 to 20	C2	1.7	8.9	3
369	Alder	170e	Y	20 to 40	C1	2	13.1	3.6
G370	Crack Willow	550ave	M	10 to 20	C2	6.6	136.9	11.7
371	Common Ash	650*	MA	10 to 20	C1	6.5*	132.7*	11.5*
372	Sycamore	420*	MA	10 to 20	C1	4.2*	55.4*	7.4*
373	Horse Chestnut	220*	Y	10 to 20	C1	2.2*	15.2*	3.9*
374	Hybrid Black Poplar	380e	MA	20 to 40	C1	4.6	65.3	8.1
375	Norway Maple	350e	MA	10 to 20	C1	4.2	55.4	7.4
376	Crack Willow	380*	MA	10 to 20	C1	3.8*	45.4*	6.7*
377	Horse Chestnut	180e	Y	<10	R	2.2	14.7	3.8
378	Hybrid Black Poplar	370e	MA	20 to 40	C1	4.4	61.9	7.9
379	Norway Maple	370e	MA	20 to 40	C1	4.4	61.9	7.9
380	White Poplar	580*	M	10 to 20	C1	5.8*	105.7*	10.3*
381	Sycamore	430*	MA	20 to 40	C1	4.3*	58.1*	7.6*
382	Sycamore	580e	M	20 to 40	C1	7	152.2	12.3
383	Crack Willow	410*	MA	10 to 20	C1	4.1*	52.8*	7.3*
384	Norway Maple	400*	MA	10 to 20	C1	4*	50.3*	7.1*
385	Horse Chestnut	170e	Y	10 to 20	C1	2	13.1	3.6
386	Norway Maple	400*	MA	10 to 20	C1	4*	50.3*	7.1*
387	White Poplar	140e	Y	20 to 40	C1	1.7	8.9	3
388	Horse Chestnut	210e	Y	20 to 40	C1	2.5	20	4.5
389	Norway Maple	430e	MA	10 to 20	C1	5.2	83.7	9.1
390	Norway Maple	500*	M	10 to 20	C1	5*	78.6*	8.9*
391	Whitebeam	200e	M	10 to 20	C1	2.4	18.1	4.3
392	Sycamore	350e	MA	10 to 20	C1	4.2	55.4	7.4

LAND AT FELPHAM, BOGNOR
METHOD STATEMENT

Tree No.	Species	Stem Dia (mm)	Age Class	Remaining contribution (est. years)	Category grading	Root protection area		
						Radius (m)	M ²	Square
G1	Hawthorn, Blackthorn, Hornbeam	90ave	Y	40+	C1	1.1	3.7	1.9
2	Hawthorn	170e	MA	20 to 40	C1	2	13.1	3.6
3	Crab Apple	160e	MA	10 to 20	C1	1.9	11.6	3.4
4	Dead	220*	MA	>10	R	2.2*	15.2*	3.9*
5	Hornbeam	240e	MA	20 to 40	C1	2.9	26.1	5.1
G6	Hornbeam	240e	MA	20 to 40	C1	2.9	26.1	5.1
G7	Beech	240e	MA	20 to 40	C1	2.9	26.1	5.1
8	Hawthorn	110e	Y	40+	C1	1.3	5.5	2.3
9	Beech	430e	MA	40+	C1	5.2	83.7	9.1
G10	Beech, Oak, Ash, Horse Chestnut, Sycamore, Hawthorn	380*	MA	40+	C1	3.8*	45.4*	6.7*
G11	Hawthorn	170e	MA	20 to 40	C1	2	13.1	3.6
12	Ash	430e	MA	10 to 20	C1	5.2	83.7	9.1
G12a	Sycamore, Hybrid Black Poplar, Ash, Elm	540ave	M	40+	B2	6.5	131.9	11.5
G13	Oak	620	M	40+	C1	7.4	173.9	13.2
14	Crack Willow	1000*	M	20 to 40	C1	10*	314.2*	17.7*
G15	Sallow	80ave	MA	10 to 20	C1	1	2.9	1.7
16	Sallow	240	MA	10 to 20	C1	2.9	26.1	5.1
17	Ash	170	Y	40+	C1	2	13.1	3.6
18	Ash	1000*	MA	20 to 40	C1	10*	314.2*	17.7*
19	Crack Willow	460e	MA	40+	C1	5.5	95.7	9.8
20	Crack Willow	1170	M	10 to 20	C1	14	619.4	24.9
21	Ash	800e	MA	20 to 40	C1	9.6	289.6	17
G22	Ash	600*	MA	20 to 40	C1	6*	113.1*	10.6*
G23	Sallow	110ave	M	40+	C1	1.3	5.5	2.3
24	Oak	580	M	40+	B2	7	152.2	12.3
25	Ash	420*	MA	>10	R	4.2*	55.4*	7.4*
H26	Hawthorn	117ave	MA	40+	C1	1.4	6.2	2.5
27	Sallow	90e	MA	>10	R	1.1	3.7	1.9
28	Hawthorn	110*	MA	10 to 20	C1	1.1*	3.8*	1.9*
29	Goat Willow	320*	MA	10 to 20	C1	3.2*	32.2*	5.7*
30	Hawthorn	80e	Y	10 to 20	C1	1	2.9	1.7
H31	Hawthorn	80ave	MA	40+	C1	1	2.9	1.7
G32	Field Maple	140ave	MA	40+	C1	1.7	8.9	3
33	Hawthorn	110*	MA	>10	R	1.1*	3.8*	1.9*
34	Field Maple	320*	MA	40+	C1	3.2*	32.2*	5.7*
35	Oak	1100	M	40+	B3	13.2	547.5	23.4

APPENDIX 2

Tree Survey & Protection Plan

APPENDIX 3

**National Joint Utility Guidelines Vol. 4 issue 2. Nov' 07
(extract)**



NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees

Volume 4

**NJUG GUIDELINES FOR THE PLANNING, INSTALLATION AND
MAINTENANCE OF UTILITY APPARATUS IN PROXIMITY TO
TREES**

PLEASE ENSURE THAT YOU READ THE LEGAL NOTICE AND DISCLAIMER
WHICH APPEARS IN APPENDIX B OF THIS PUBLICATION

Issue 2: 16th November 2007

NJUG has a vision for street works, this vision is simply:

- Safety is the number one priority
- Damage to underground assets is avoided
- Utilities work together and in partnership with local authorities to minimise disruption
- Utilities deliver consistent high quality
- Utilities maximise the use of sustainable methods and materials
- Street Works in the U.K. are regarded as world class

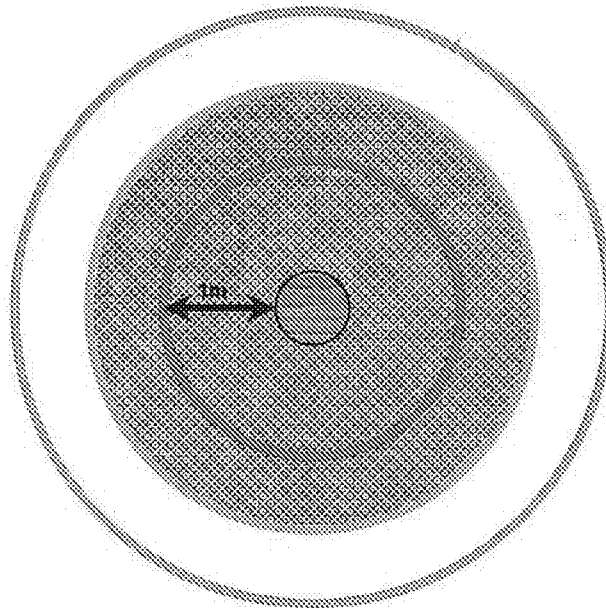
This document forms part of that vision.

Mark Ostheimer
Director, Safety and Policy



NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in
Proximity to Trees

FIGURE 1 – Tree Protection Zone



Key



Trunk of tree



Canopy or branch spread



PROHIBITED ZONE – 1m from trunk. Excavations of any kind must not be undertaken within this zone unless full consultation with the local authority Tree Officer is undertaken. Materials, plant and spoil must not be stored within this zone.



PRECAUTIONARY ZONE – 4 x tree circumference. Where excavations must be undertaken within this zone the use of mechanical excavation plant should be prohibited. Precautions should be undertaken to protect any exposed roots. Materials, plant and spoil should not be stored within this zone. Consult with the local authority Tree Officer if in any doubt.



PERMITTED ZONE – outside of the precautionary zone. Excavation works may be undertaken within this zone, however caution must be applied and the use of mechanical plant limited. Any exposed roots should be protected.



The National Joint Utilities Group

NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees

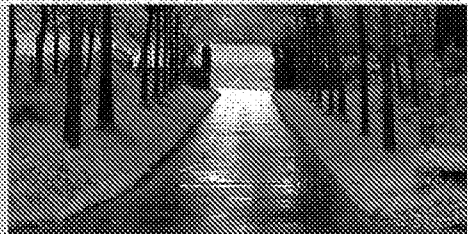
TABLE 1 - Prevention of Damage to Trees Below Ground

Causes of Damage	Type of Damage	Implications to Tree	Precautions
Trenching, mechanical digging etc.	Root severance	- The tree may fall over - Death of the root beyond the point of damage - Potential risk of infection of the tree The larger the root the greater the impact on the tree.	Hand excavate only within the Precautionary Zone. Work carefully around roots. Do not cut roots over 25mm in diameter without referring to the local authority tree officer. For roots less than 25mm in diameter use a sharp tool and make a clean cut leaving as small a wound as possible.
Trenching, mechanical digging, top soil surface removal etc.	Root bark damage	- The tree may fall over - If the damage circles the root it will cause the death of the root beyond that point - Potential risk of infection of the tree The larger the root the greater the impact on the tree.	Do not use mechanical machinery to strip the top soil within the Precautionary Zone. Hand excavate only within the Precautionary Zone. Work carefully around roots. Do not cut roots over 25mm in diameter without referring to the local authority tree officer. For roots less than 25mm use a sharp tool and make a clean cut leaving as small a wound as possible.
Vehicle movement and plant use. Material storage within the precautionary area.	Soil compaction & water saturation	Restricts or prevents passage of gaseous diffusion through soil, the roots are asphyxiated and killed affecting the whole tree.	Prevent all vehicle movement, plant use or material storage within the Precautionary Zone.
Top-soil scouring, excavation or banking up.	Alterations in soil level causing compaction or exposure of roots.	Lowering levels strips out the mass of roots over a wide area. Raising soil levels asphyxiates roots and has the same effect as soil compaction.	Avoid altering or disturbing soil levels within the Precautionary Zone.
Use of herbicides.	Poisoning of the tree via root absorption	- Death of the whole tree - Death of individual branches Damage to leaves and shoots.	The selection and application of herbicides must be undertaken by a competent person in accordance with COSHH regulations.
Spillage of oils or other materials.	Contamination of soil	Toxic and asphyxiation effects of chemicals, oils, building materials (cement, plaster, additives etc.) on the root system can kill the tree.	Never store oils, chemicals or building materials within the Precautionary Zone or within the branch spread of a tree, whichever is the greater.
Placement or replacement of underground apparatus.	Various	Death of all or part of the tree.	Effective planning and liaison with local authority tree officer, taking into consideration the position of trees, and their future growth potential and management

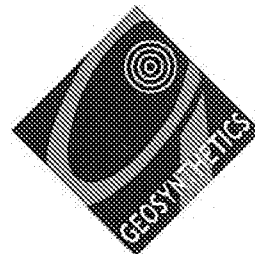
APPENDIX 4

**Tree Root Protection System
using CellWeb by Geosynthetics Ltd
(www.geosyn.co.uk)**

CellWeb



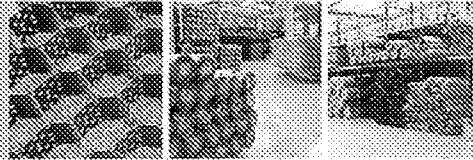
Tree Root Protection System



Geosynthetics Limited

CellWeb

Tree Root Protection System



CellWeb Tree Root Protection System provides a flexible and permeable solution for protecting tree roots while creating a strong stable surface for traffic.



With increased urbanisation and more redevelopments of existing properties, the need to be mindful of the impact on the surrounding environment is more important than ever.

The demand for building site access, driveways and parking around existing trees can have a potentially fatal impact on the tree if carried out incorrectly. Tree preservation orders (TPO's) ensure that trees are not wilfully damaged. However the need for vehicle access over and around tree roots can still cause the following problems:

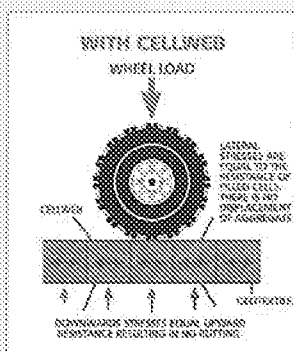
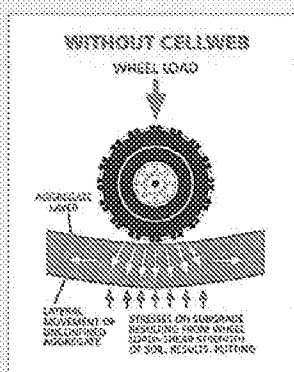


Problems:

- Compaction of subsoils (especially by construction traffic) causing oxygen and nutrient depletion
- Creating an impermeable surface that prevents water reaching the roots
- Changes in ground level and water table
- Damage caused during excavation
- Contamination of the subsoil

By using CellWeb Tree Root Protection System you can avoid these problems and ensure the tree's long-term future. BS 5837:1991 (revised 2006) and APN 1 provide information for the protection of trees during the construction process, and CellWeb is a well-established solution that conforms to these guidelines.

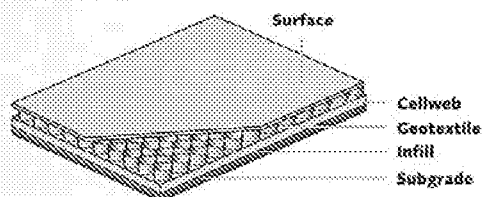
Product features



Cellweb's patented design with its unique cellular structure and perforated cell walls reduces the vertical load pressure on tree roots and prevents damage. With clean granular materials as infill, air and moisture can reach the roots to encourage healthy growth.

With no-dig solutions being the preferred option of most Arboricultural Consultants and Tree Officers, CellWeb is ideal as only the surface vegetation need be removed. As well as avoiding disruption to the roots this reduces installation time and saves money.

What's more CellWeb also cuts down the depth required for the sub base – in most cases by 50% for further cost savings. CellWeb also significantly reduces surface rutting, increasing the long-term performance of the finished surface.



Using CellWeb for tree root protection gives you these benefits:

- Reduced depth of excavation required
- Preventing the compaction of subsoils
- Preventing oxygen and nutrient depletion
- Environmentally sound
- Quick, easy and cost-effective installation
- Free technical support available

CellWeb gives you the cost-effectiveness you need at the same time as helping to preserve trees.

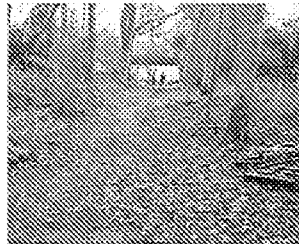
Geosynthetics Ltd is a leading dis

Please call
0870 850 1018
or email sales@geosyn.co.uk
for further information

Wide
product
range

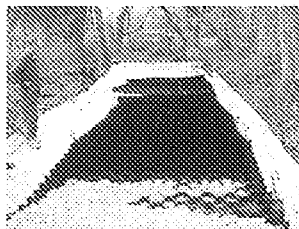
Large
stock
holding

Next day
delivery

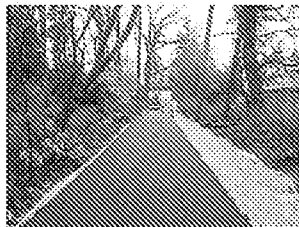


Access road for the National Lake District Parks Authority.

Site before construction pictured above.



CellWeb during installation.



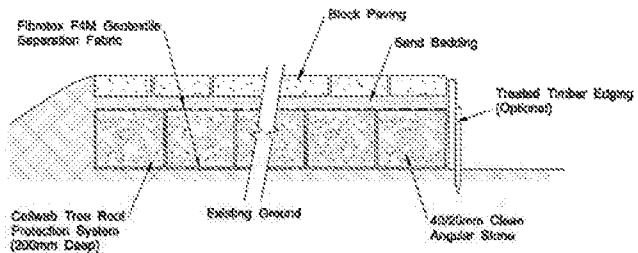
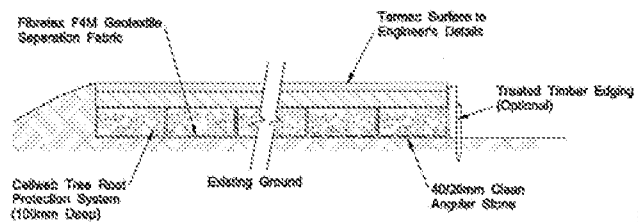
Final surfacing.

Final surfacing

The CellWeb Tree Root Protection is totally confined within the clean stone sub base, therefore you can choose whichever surface materials are most appropriate for your installation. Some materials are more suitable than others and serious consideration should be given to the porosity of the surface for continued healthy growth of the tree. An ideal surfacing are DuoBlocks: a grass reinforcement and gravel retention system. Geosynthetics can supply these systems for a visually attractive surface that also has the advantage of being fully porous.

Loose or bonded gravels can be used as an alternative hard landscaping and CellWeb can also be used with block pavers whose porous joints will permit moisture and air transfer to the roots. Where planning allows, porous asphalt is yet another possible surfacing treatment.

Call our sales office on 0870 850 1018 for more information.

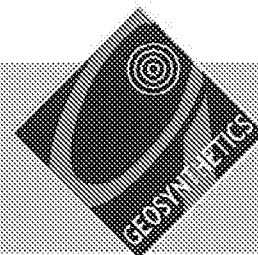


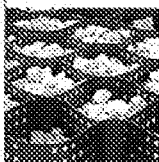
tributor of geosynthetic materials in the UK

Design
service

Onsite
support

See all products
online at
geosyn.co.uk





Quality assurance

Certified quality

Cellweb™ is manufactured in accordance with an ISO 9001 Quality Management System with perforated walls, and a comprehensive range of cell diameters and depths. The perforated system improves the frictional interlock of infill material giving greater stability and facilitating lateral drainage.



Advice and product selection

Geosynthetics Limited has been supplying the CellWeb Tree Root Protection System for many years and as a result have acquired a vast amount of experience and knowledge. No two contracts are the same, and we understand the factors that need to be taken into account to specify the right CellWeb product for the right situation.

We provide a FREE consultation, design and advisory service to give you the reassurance that your project will be cost-effective and beneficial to existing trees. The service includes product selection, CAD drawings and full installation instructions and will help you from conception stage all the way through to completion.

Call our sales office on 0870 850 1018 for specification details and project specific design assistance.

Geosynthetics Ltd is committed to offering the best solutions for soil stabilisation, erosion control, drainage and environmental protection problems.

Well trained staff are always available to discuss which materials are best suited to any particular application.

APPENDIX 5

Tree Removal List

LAND AT FELPHAM, BOGNOR

ARBORICULTURAL SURVEY

Amended list of trees to be removed within the Tree Survey & Tree Protection Plan 607/TPP/100 revF dated April '08

TPO	Tree Survey Schedule No.	To be removed for A29 Link Road	BS 5837 (2005) category grade
	3 to 5	Yes	3 (C1), 4 (R), 5 (C1)
	G6	Yes	C1
	G7	Yes	C1
	8	Yes	C1
	9	Yes	C1
	G10	Part of G10	C1
	G11	Part of G11	C1
	G15	Part of G15	C1
	16 to 19	Yes	C1
	20	Yes	C1
	21	Yes	C1
	G22	Yes	C1
	G23	Part of G23	C1
	H26	Part of H26	C1
TPO	Tree Survey Schedule No.	To be removed for Residential Development & Flansham Lane Link Rd	BS 5837 (2005) category grade
	101	Yes	C1
	102	Yes	R
	G103	Yes	C1
G12	104	Yes	B2
G12	G105	Yes	C1
G12	G106	Yes	C1
	G107	Yes	R
	H120	Part of H120	C1
	121 to 124	Yes	3x C1, 122 (R)
	G125	Part of G125	C1

LAND AT FELPHAM, BOGNOR
ARBORICULTURAL SURVEY

TPO	Tree Survey Schedule No.	To be removed for Residential Development & Flansham Lane Link Rd	BS 5837 (2005) category grade
	H128	Part of H128	C1
	H155	Part of H155	C1
Part of G21	G199	Part of G199	C1
	202	Yes	C1
	203	Yes	R
	211	Yes	C1
	212	Yes	R
G21	213	Yes	C1
G28	237	Yes	C1
	238 to 250	Yes	10x C1, 241 (R), 242 (R), 246 (R)
	H251	Yes	C1
	G253	Yes	C1
	280 to 307	Yes	23x C1, 285 (B1), 282 (R), 293 (R), 296 (R), 307 (R)
	G310	Part of G310	B2
	G312	Part of G312	C1
T20	327	Yes	C1
T21	328	Yes	C1
	329 to 339	Yes	10x C1, 336 (R)
	342 to 352	Yes	8x C1, 345 (R), 350 (R), 352 (R)
G26	353	Yes	C1
	354	Yes	C1
	G368	Part of G368	C1
	G370	Yes	C1
	371	Yes	C1
	G32	Yes	C1
	H128	Additional part of H128	C1
Part of G21	G199	Additional part of G199	C1

LAND AT FELPHAM, BOGNOR
ARBORICULTURAL SURVEY

TPO	Tree Survey Schedule No.	To be removed for Residential Development & Flansham Lane Link Rd	BS 5837 (2005) category grade
G19	200	Yes	C1
G19	201	Yes	C1
G20	208, 209, 210	Yes	3X C1
G21	214 to 215	Yes	2X C1
	216	Yes	R
T14	319	Yes	C1
	G312	Additional part of G312	C1
G22	G320	Only part covered by TPO	C1
G22	321 to 324	Yes	4X C1
	325	Yes	R
T19	326	Yes	C1
	340	Yes	C1
G25	355 to 357	Yes	3x C1
	G358	Part of G358	C1
G26	360 to 367	Yes	8x C1
G26	369	Yes	C1
G27	374	Yes	C1
G27	376	Yes	C1
G27	377	Yes	R
	G368	Part of G368	C1
G27	378	Yes	C1
G27	380	Yes	C1
G27	383	Yes	C1
G27	387	Yes	C1



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