



Arboricultural Implications Assessment and Method Statement



Woodcroft Farm, Waterloooville

Arboricultural Implications Assessment and Method Statement

WOODCROFT FARM, WATERLOOVILLE

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1 INTRODUCTION

- 1.1 **Instruction:** I am instructed by grainger plc to survey trees that could be affected by a development proposal at Woodcroft Farm, Waterloooville and prepare an Arboricultural Implications Assessment (AIA) and Arboricultural Method Statement (AMS) to support a planning application on the site.
- 1.2 **Document disclosure:** I have been provided with a topographical survey, drawing reference 'Woodcroft FINNAL'. This shows the positions of the significant trees on or near the site, together with the existing buildings and any other important features. I was also supplied with two plans showing a proposed layout for the site and a new access road (drawing references '1924-A-1005-J,1010-K_SITE LAYOUTS' and '21834-004-005a' respectively).
- 1.3 **Scope of report:** All my observations are of a preliminary nature and the tree survey was carried out from ground level without any investigations using invasive or diagnostic equipment. I have not checked the accuracy of the positions of the trees shown on the provided plans and I have estimated all dimensions unless otherwise indicated.
- 1.4 **The Tree Protection Plans:** These are included in Appendix 1 and are composite drawings derived from the information provided. They show the existing landscape features (from the land survey) in grey and the proposed layout superimposed over the top in blue. This allows the relationship between the two to be clearly seen. The Tree Protection Plans have also been annotated to show protection measures for the trees that could realistically be affected by the proposed development. They indicate where activities in Root Protection Areas (RPAs) are to occur and if trees are to be removed, they are shown with a red dashed crown outline.
- 1.5 **Qualifications and experience:** This report is based on my site observations, and I have come to my conclusions in the context of my experience as a former local government tree officer and a private practice arboricultural consultant. I have qualifications in both

arboriculture and forestry, and details of these, together with a career summary are provided in Appendix 6.

- 1.6 **Ecological issues and statutory tree protection:** Providing guidance on ecological issues is not within my sphere of expertise. However, trees and other vegetation can often provide nesting, roosting and feeding opportunities for protected species. Therefore, before any tree work proceeds on site, I advise that appropriate advice is sought to see whether the trees to be removed are being utilised by any protected species.

At the time of writing, no checks have been made to ascertain whether any of the trees discussed are covered by tree preservation orders, or if the site is located in a conservation area. Therefore, any person intending to carry out any operations involving trees (before a formal planning consent is issued) should consult the council before any works are carried out.

2 SITE VISIT, DESCRIPTIONS, OBSERVATIONS AND SURVEY METHODOLOGY

2.1 **Site visit:** I visited the site initially on 17 June 2009 to gather my tree data. The weather at the time of my survey was clear, still and dry, with good visibility.

2.2 **Description of site and surrounds:** The site is located in Woodcroft Lane, which is situated in the Wecock Farm area of Waterloooville. Woodcroft Farm is located on the northern side of the road and consists of a number of fields laid to grass, surrounded by boundary hedges, together with a farmhouse and associated agricultural type outbuildings and stables.

2.3 **Observations of trees and other vegetation:** Scattered groups and individual trees are located throughout the site, positioned mainly close to the site periphery or located close to the internal field boundaries. Of those trees of landscape significance, the predominant tree species is oak (*Quercus robur*).

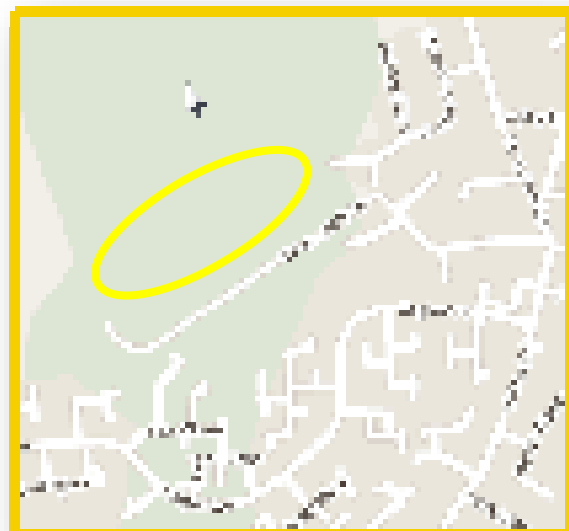


Figure 1: Approximate geographical location of site in yellow

2.4 **Description of proposed development:** This development proposal is to construct 293 new residential dwellings (with access) and retention of the existing farmhouse.

2.5 **Soil assessment:** BS 5837 (2012) advocates that a soil assessment should be carried out to inform decisions relating to RPAs, tree protection, new planting and foundation design. I have consulted the British Geological Survey (BGS) website and their Geology of Britain viewer and this advises that the bedrock geology for the site is Lambeth Group - Clay, Silt and Sand. I did not undertake any excavations on site to confirm this

and a full geotechnical site investigation may need to be undertaken to provide a more in-depth level of information regarding soil type for the site.

- 2.6 **Tree survey methodology:** My inspection of the trees was visual, and did not involve any climbing or exploratory investigation. During my visit, I identified obvious hedges and groups where this was appropriate and I assigned an identification number to each tree, hedge or group, as shown on the plan in Appendix 1. I then collected the tree data included in Appendix 2 and placed the vegetation in one of four categories (U, A, B or C), as set out in British Standard (BS) 5837: 2012 Trees in relation to design, demolition and construction – Recommendations. I have included the BS categorisations in Appendix 5 for easy reference. Where of relevance, I also estimated the crown spreads for each tree at the appropriate cardinal compass points and this information is also shown in the tree schedule in Appendix 2.

Although this document is not meant to be a full and detailed report on tree health and safety, any significant visible structural defects or physiological conditions identified, together with preliminary tree works, are also noted in the appropriate columns in the tree schedule in Appendix 2. However, a full post development tree inspection is recommended to establish that the trees retained during construction pose acceptable levels of risk once the development has been completed.

- 2.7 **Data interpretation:** The Root Protection Area (RPA) calculations are included in Appendix 2. As set out in paragraphs 4.6.2 and 4.6.3 of the BS, the RPAs may have been adjusted as a matter of arboricultural judgement, to indicate the estimated likely position of tree roots. These modified (or unmodified) RPAs dictate the location of the tree protection barriers, which encompass the Construction Exclusion Zones (CEZs) and other protective measures as shown on the plan included in Appendix 1. Where there is a need for incursions into RPAs, an assessment of the implications of these activities is set out in Section 3 (Arboricultural Implications Assessment) of this report. Where appropriate, details of suitable work methodologies to mitigate any impact are set out in Section 5 (Arboricultural Method Statement).

3 ARBORICULTURAL IMPLICATIONS ASSESSMENT

3.1 Overview of the implications of the development proposal on trees: BS 5837 (2012) –

Trees in relation to design, demolition and construction – Recommendations sets out in some detail how trees on development sites should be managed. It is generally accepted that Category A (high quality) and Category B (moderate quality) trees are considered potential constraints on any development proposal, whereas those belonging to Category C (low quality) are considered to be generally less important. Category U trees are in such poor condition that they are considered unsuitable for retention as they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years. Therefore, these trees can be effectively discounted in the context of the planning process.

On this site a total of TWO HUNDRED AND TEN individual trees, groups and hedges were recorded during the tree survey and were assigned to the BS 5837 (2012) categories, as set out in Table 1 below:

Category A and B trees	A total of ONE HUNDRED AND THIRTY THREE trees and groups (T1, T3, T4, T5, G6a, G8, G9, G10, G11, T13, T14, T15, T16, T17, T18, T19, T20, T21, T22, G23, T26, T27, T29, T30, T34, T39, T41, T44, T45, T47, T48, T49, T50, G51, T52, T53, T56, G57, T58, G59, T60, T61, T62, T63, G64, T65, T66, T67, T69, T72, T74, T75, T76, T78a, T80, T81, T83, T85, T86, T87, T88, T89, T90, T91, T92, T93, T98, T100, T102, T103, T104, T105, T106, T107, T109, T110, T111, T112, T113, T114, T115, T116, T119, T120, T121, T122, T124, T127, T131, T138, T139, T141, T142, T143, T144, T145, T146, T147, T148, T149, T150, T152, T153, T156, T157, T158, T159, T161, T164, T165, G167, T170, G173, T174, T176, G178, G179, T180, T181, T182, T183, T184, T185, T188, T189, T190, T191, T193, T194, T195, T196, G198 and G200 were rated Category A and B
Category C trees	A total of FIFTY NINE groups and hedges (G2, G6, T12, G22a, G24, T28, G32, T33, G34a, T36, H37, G38, T40, T42, T43, G46, H68, G69a, T71, G75a, T77, G78, G79, G79a, T81a, T82, H84, G94, T95, T96, T96a, H97, T97a, H99, T101, T117, T118, T123, T126, T128, G133, T134, T135, G136, T137, T151, G155, T160, T162, G163, G168, T169, T175, G177, T186, T187, T192, G197 and T199) were rated Category C
Category U trees	A total of EIGHTEEN trees (T7, T25, T31, T35, T54, T55, T70, T73, T108, T125, T129, T130, T132, T140, G154, T166, T171 and T172) were rated Category U

Table 1: Tree numbers and BS categories

I have focussed on the implications of the development proposal mainly on the important trees on or near the site (Category A and B) in terms of tree loss/retention and by the extent of any incursions into and/or disturbance to Root Protection Areas (RPAs). To a lesser extent I have also considered the implications for the Category C trees present.

Of the total of TWO HUNDRED AND TEN trees, groups and hedges surveyed, all A Category trees will be retained, with only TWENTY Category B trees and TWENTY SEVEN Category C trees/groups/hedges needing to be wholly or partially removed to facilitate the development. Additionally, TWENTY trees/groups will have activities arising from the development occurring in their RPAs. I have summarised the implications on Category A, B and C trees in Table 2 below and set these aspects out in more detail in the following paragraphs.

Trees to be removed for development		Activities in RPAs arising from the development proposal	
Category A and B	Category C	Category A and B	Category C
T72, T74, T75, T76, T80, T114, T115, T116, T119, T120, T121, T122, T124, T131, T156, T157, T159, T161, T164 and T165	G2 (part of group), G6, G38, G69a, T71, G75a, T77, G78, G79, G79a, T81a, H84 (part of hedge), T96a, H97 (part of hedge), H99 (part of hedge), T117, T118, T123, G133, T134, T135, G136, T137, G155, T160, T162 and G163	G6a (ground protection and low invasive surfacing) G8, G9, G10, G11 T13, T14, T15, T16, T17, T18, G51, T81, T83, T85, T86, T87, T98, T103 and T105 (low invasive surfacing)	n/a

Table 2: Trees lost and activities in RPAs arising from the development proposal

3.2 Direct implications of the development proposal - Tree retention and tree loss

3.2.1 **BS Category A and B trees to be removed (trees of high and moderate quality):** All the Category A trees surveyed will be retained and protected. TWENTY Category B trees (see Table 2) will need to be removed to facilitate the development and I set out my brief views on the implications of the loss of these trees, as follows:

- **Trees T72, T74, T75, T76 and T80 (Category B):** These trees are positioned close to the existing farmhouse and in my view they are not part of the important landscape trees on site. During the design phase it was agreed that trees around the farmhouse could be candidates for removal, if it allowed high quality trees on the site to be retained. In this instance, the removal of the trees indicated has allowed better Category A trees to be retained and a more sympathetic tree/building interface to be achieved. I therefore do not believe that the removal of these trees should have any particular implications, particularly when considering that their removal allows the very best trees on the site to be retained.
- **Trees T114, T115, T116, T119, T120, T121, T122 and T124 (Category B):** These trees will need to be removed to allow the new access road to be installed in the position shown on the attached plans. These trees are part of a linear grouping that runs in an east/west orientation adjacent to Woodcroft Lane. Individually many of the trees surveyed are relatively poor in purely arboricultural terms, but they do have some merit collectively (and thereby attracting a higher rating than they might as individuals) as components of the tree belt. I have therefore assigned these trees to the BS 5837:2012 B2 Category (or landscape trees of moderate quality).

In my view the implications of the loss of these trees will be modest due to the position of retained trees flanking the new road, and others in the vicinity which will help buffer their loss. I believe this to be particularly relevant for longer views in an east/west direction along Woodcroft Lane, when the loss of the trees will certainly be less noticeable. Additionally, there is scope for new trees within the proposed new development site to the north and this could further soften the visual impact of the loss of these trees.

- **Tree T131 (Category B):** This tree will need to be removed due to the extent of the proposed earth works nearby and positioning of the new footway, both of which will make its retention unviable. Further to the west of its position is a backdrop of trees to be retained and the retained trees will help buffer its removal to the extent that I believe that the loss of this tree will not be particularly noticeable.

- **Trees T156, T157, T159, T161, T164 and T165 (Category B):** These trees are either located on the grassy area adjacent to Eagle Avenue, or positioned on the land next to Meadowlands Infant School. The trees will be lost because they are either under the footprint of the proposed road configuration, or are positioned in or immediately next to the cutting required to the north of the roundabout.

When considering the loss of these trees, I think it is relevant that again many have been given a higher collective rating than would be the case if assessed as individuals (hence the BS 5837 Category B2 rating). Their loss will be noticeable in the immediate vicinity, although when looking west along Eagle Avenue I feel that the eastern edge of the woodland to the rear of their position will help soften the impact of their removal, and serve as a suitable 'woody' backdrop for the road and roundabout.

There does seem to be suitable opportunities for new tree planting in the locality. Specifically, it appears that new street tree planting could be accommodated along either side of the new access road. If the tree species are carefully selected, then these would attain a significant size when mature, and could make an important and sustainable long term contribution to local amenity.

- 3.2.2 **BS Category C trees to be removed (or those of low quality):** As discussed, trees belonging to Category C are not normally retained where they would impose a significant constraint on the development or redevelopment of a site. In this instance, TWENTY SIX Category C trees, groups and hedges (see Table 2) will need to be wholly or partially removed to facilitate the development proposal. I set out my brief views on the implications of the loss of these trees, as follows:

- **Group G2 (part of group), G75a, G78, G79a and trees T81a, T134, T135 and T160:**
These trees and groups are relatively small in size and/or in poor condition. I therefore do not believe that their loss will have any particular implications for local amenity.
- **Groups/trees G6, G38, T71, T77, G79, T96a, T117, T118, T123, G133, G136, T137, G155, T162 and G163:** These trees and groups are in poor condition, with somewhat limited safe and useful life expectancy. It is my view that these trees are simply not of sufficient quality to be constraints on any development proposals regardless of any current or potential amenity value.
- **Group G69a:** This is a small group of typical domestic conifer type planting. They are rather unremarkable and I do not believe that their loss will have any particular landscape implications.
- **Hedges H84, H97 and H99 (parts of hedges):** Although small in size, mixed species native hedgerows are an inherent component of this site. In some instances, the hedges bisect the site to form the existing smaller field compartments. Consequently, it is not possible to comprehensively develop the site without removing small sections of some hedges (e.g. to allow the required road that runs through the middle of the site to be formed). The sections that need to be removed have been kept as small as possible and I do not believe that their loss will have any particular arboricultural/amenity implications.

3.3 Additional implications arising from the development proposal

3.3.1 BS Category A and B trees and activities in RPAs: TWENTY trees and groups will have activities arising from the development occurring in their RPAs, as follows:

- **New surfacing:** New surfacing (in the form of car parking, access drives and a bridleway) will need to be installed within the RPAs of trees G6a, G8, G9, G10, G11 T13, T14, T15, T16, T17, T18, G51, T81, T83, T85, T86, T87, T98, T103 and T105. After discussions within the design team, it has been agreed that the sub base for

the various elements could in principle be a cellular confinement system. This will negate the need for significant excavation and excessive disturbance within RPAs of these retained trees.

The use of cellular confinement systems is supported in BS 5837 (2012), together with bespoke suspended engineered solutions (paragraph 7.4.2.7). With the exception of the new bridleway closer to trees G8 to G11 that is shown within the protective barriers, the surfacing will need to be installed before any clearance or construction activities occur on site and so it will also need to act as ground protection throughout the construction phase. Consequently, the protective barrier positions shown on the plan included in Appendix 1 are set back from the full BS protection distances to allow space for this to be installed.

At the current time full engineering drawings for the various new surfacing elements were not available. But, these drawings could be secured by way of a suitably worded planning condition and so could be reviewed by the council prior to implementation. In the meantime, I have provided illustrative specifications for low invasive type surfacing in Appendix 4.

- **Ground protection:** The protective barriers around trees in G6a will need to be set back to allow sufficient room for the positioning of scaffolding and to provide suitable space for the movement of materials and personnel during the construction phase. The protective barrier positions around the trees are shown on the plan in Appendix 1. The area of the RPAs that is outside of the barriers will need to be covered in ground protection and this will need to be installed after the erection of the barriers, but before any clearance or construction work starts on site. It is proposed that the ground protection will consist of a temporary cellular confinement system, which will be removed at the end of the development, with the area returned to soft landscaping. The provision of ground protection to allow vehicular and pedestrian access in RPAs is supported in paragraph 6.2.3 of BS 5837 (2012) and I do not perceive this to be a particular problem, provided it is implemented correctly and remains in situ during the construction phase.

- 3.4 **BS Category U trees normally removed for management reasons:** Category U trees are in such poor condition that they are considered unsuitable for retention as they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years. Therefore, these can be effectively discounted in the context of the planning process. On this site, I have assessed trees T7, T25, T31, T35, T54, T55, T70, T73, T108, T125, T129, T130, T132, T140, G154, T166, G171 and T172 as falling into Category U. Consequently, these trees are scheduled for removal for management reasons. As they are unsuitable for retention in the context of the current site use, I therefore do not believe that their loss should be a consideration in the context of the current planning application.
- 3.5 **Protection of trees during construction:** A preliminary Arboricultural Method Statement is included in Section 5 and it details the various issues associated with successful tree protection in a development context on this site. If deemed appropriate by the council, this can be specifically referred to in a suitably worded planning condition attached to any subsequent consent.

4 SUMMARY OF THE IMPLICATIONS OF THE DEVELOPMENT ON TREES

- 4.1 Of the total of TWO HUNDRED AND TEN trees, groups and hedges surveyed, all A Category trees will be retained, with only TWENTY Category B trees and TWENTY SEVEN Category C trees/groups/hedges needing to be wholly or partially removed to facilitate the development. Additionally, TWENTY trees/groups will have activities arising from the development occurring in their RPAs. These activities include the installation of a new surfacing and temporary ground protection to allow access over RPAs. These aspects have been carefully considered to minimise any risk of impact on trees and full details relating to this and tree protection are included in this report.

My view is that if appropriate care is taken and the sensitive work proposed is properly supervised and implemented correctly, then the proposed development is arboriculturally acceptable and there will be minimal risk of any adverse impact on the nearby trees to be retained.

5 PRELIMINARY ARBORICULTURAL METHOD STATEMENT

5.1 Tree protection issues

5.1.1 **Tree Protection Plan (TPP):** The plan in Appendix 1 is illustrative, and based on the layout drawings and topographical survey provided. Therefore, all scaled measurements should be checked against the original design documents. The attached plan and all other information in this report should only be used for dealing with the tree protection issues and all other uses are prohibited, unless authorised by Ecourban Ltd. All the existing trees will have been numbered, with higher categories (A and B) highlighted in green and blue rectangles and low categories (C and U) highlighted in grey and red respectively. The plan also shows the locations of the proposed protective measures, including areas where special care may be required. Additionally, trees to be removed are indicated with a red dashed crown outline. The TPP is an important document, and a copy of it should be kept on site for reference whilst the development is under construction.

5.1.2 **Protective barriers:** Information on barrier design based on BS 5837 (2012) guidance is included in Appendix 3 and the approximate location of the barriers is illustrated on the plan in Appendix 1. The protective barriers will be erected before any materials or machinery are brought onto the site, and before any clearance or construction activities occur. Once the protective barriers have been positioned, these will stay in situ for the duration of the construction, unless previously agreed with the arboricultural consultant or council's tree officer. There will be no access into the protected area and the storage of excavated debris and building materials will be prohibited in RPAs, unless authorised by the arboricultural consultant, after discussion with the council's tree officer. No fires or fuel storage will be allowed within or near to protected areas under any circumstances.

5.1.3 **Ground protection:** The position of ground protection is shown on the plan included in Appendix 1, with guidance for ground protection design from BS 5837 (2012) included in Appendix 4. The ground protection will be installed before any materials or machinery are brought onto the site, and before any clearance or construction activities occur. In this instance it is proposed that the ground protection will be a temporary cellular confinement system.

5.2 **Arboriculturally sensitive operations**

5.2.1 **Activities in Root Protection Areas (RPAs):** Work in RPAs must be done with care, as set out in the following text. Site personnel will be properly briefed before any activities start and all sensitive work will be inspected regularly during the course of operations.

5.2.2 **Installation of new surfacing:** I have shown the minimum extent of 'low invasive' type surfacing required to successfully retain nearby trees on the plan included in Appendix 1. This is based on the BS derived RPA. This will also act as ground protection for the parts of the RPAs that are outside the protective barriers, and so will need to be installed before any other construction activity occurs on site. The use of a cellular confinement system is suggested in BS 5837 (2012) as one appropriate way to achieve hard surfacing over tree roots and the following guidance is based on this principle. However, before implementation the following specifications and guidance will need to be reviewed by an engineering specialist, to ensure that the final construction is appropriate from an engineering viewpoint and suitable for the purpose intended.

- **General points:** Extensive areas of surfacing in RPAs will generally be of a permeable construction to allow water ingress to tree roots, and to assist the movement of gases in and out of the soil profile. To avoid localised compaction and other ground disturbance, the sub base for the surfacing will generally be a cellular and load spreading construction, requiring no excavation (or very limited excavation) during installation.

- **Installation:** An installation video for a proprietary cellular confinement system is available to view at http://www.youtube.com/watch?v=-vIzHJ_LFho. Generally, any required changes in topography will be accomplished by raising levels rather than lowering, negating the need for any significant root disturbance. Any level changes will be achieved using uncompacted granular, permeable fills such as crushed stone or sharp sand. In this instance, the removal of the top layer of vegetation to a depth of 50mm (to provide a flat surface for the installation of the sub base) is unlikely to encounter or damage any tree roots. Any additional excavation will need to be assessed by the arboriculturalist, in consultation with the council's tree officer.

Where roots may need to be cut, roots smaller than 25mm diameter may be pruned back, preferably to a side junction, using a proprietary cutting tool such as bypass secateurs or handsaws. Roots larger than 25mm should only be severed following consultation with an arboriculturalist, as they may be essential to the tree's health and stability.

- **Sub base and final wearing courses:** Once a level surface has been formed, the load spreading construction will be installed on top of the existing soil, with no compaction of the existing soil structure. For cellular load spreading constructions, the infill will be crushed stone (typically 20-40mm, clean angular stone), with no fines, as per the manufacturer's specification. This is to ensure acceptable levels of moisture penetration and gaseous exchange. A temporary wearing course of tarmac and/or aggregate, separated by a geotextile membrane is likely to be the most appropriate way of providing a suitable ground protection/working surface during the clearance and construction phase of the project. At the final stages of the construction, the temporary wearing course will be removed (under arboricultural supervision), and the final surfacing will be installed. Suitable final wearing courses include bonded gravel, paving slabs, washed gravel or block pavements set on a sand base, although other surfacing may be suitable after consultation with the arboriculturalist.

- **Edge retention:** The use of non invasive ground contact structures (including proprietary edging products), gabions, wooden boards or railway sleepers is suggested in BS 5837 (2012) as effective edge supports in RPAs, to be secured by metal rods, track or road pins or wooden pegs. This, or a similar approach (negating the need for excessive disturbance in RPAs) will be used to minimise any adverse risk of impact on trees.
- **Illustrative specifications:** Final drawings will be prepared by the project engineer. These will be based on the illustrative manufacturers specifications for special surfacing included in Appendix 4, or an alternative 'low invasive' construction technique. These definitive plans can be secured by way of a suitably worded planning condition and approved by the council before any construction activity occurs on site.

5.3 Additional tree-related issues

- 5.3.1 **Site supervision:** Site personnel will be properly briefed regarding the tree protection issues before any work starts, and the tree protection will be inspected periodically to ensure the retained trees are protected in accordance with this document and any conditions imposed by the council.
- 5.3.2 **Installation of new services or upgrading of existing services:** Final details relating to services are traditionally left until after planning consent has been granted by the council. Where practicable, all new services will be outside RPAs, but where existing services within RPAs require upgrading or new provision is required, great care will be taken to minimise any disturbance. Trenchless installation will be the preferred option, but if this is not feasible, any excavation will be carried out by hand in accordance with the guidelines set out in NJUG Volume 4 - Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees.
- 5.3.3 **Storage of materials, cement mixing and washing points:** All construction storage areas, cement mixing and washing points for equipment and vehicles will be outside RPAs, unless otherwise agreed with the council.

- 5.3.4 **Contractors car parking, site offices and welfare facilities:** Whilst it is possible to have site offices and welfare facilities within RPAs, care is needed in their positioning and also in the connection of water, electricity and drainage to service them. Therefore, these will generally be sited outside the RPAs, unless agreed previously with the council. Contractor's car parking facilities will also be located away from retained trees.
- 5.3.5 **Tree works:** Any tree pruning or tree removal operations are set out in the tree schedule included in Appendix 2. Additionally, those trees scheduled for removal are also shown on the Tree Protection Plan included in Appendix 1.
- 5.3.6 **Planning, communication and preliminary timing of events:** It is not unusual for the details of timing of operations that could impact on important trees to only be finalised once planning consent has been given. Site managers, clearance and construction teams, and other important personnel are normally only appointed at this stage and it is these people who will be crucial in delivering the tree protection detailed in this report. My experience is that the pre commencement site meeting is critical in terms of avoiding damage to trees and this particular aspect, along with tree protection issues should be specifically referenced in a suitably worded planning condition imposed by the council. In the intervening time I propose the following preliminary cascading timetable of events to help minimise any risk of impact on important trees. However, the following schedule may be modified at the pre-commencement meeting, subject to discussion with all parties and agreement with the council:
1. Pre-commencement site meeting
 2. Extent of arboricultural supervision agreed
 3. Tree works undertaken
 4. Protective barriers erected before any clearance or construction activities occur on site and notification to the council that this is in place
 5. Ground protection installed before any clearance or construction activities occur on site and notification to the council that this is in place
 6. Installation of new surfacing – Where this is to also act as ground protection, this must be installed before any clearance or construction activities occur on site

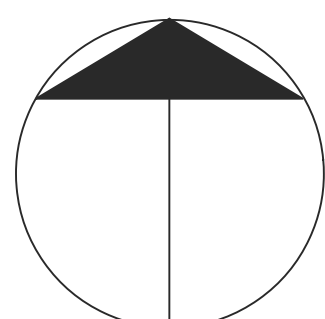
7. Installation of services
8. Tree protection only removed at the end of the construction phase when there is no longer any risk to trees

Barrie Draper BSc (Hons) Arb TechCert(ArborA) CertArb(RFS)
Arboricultural Consultant

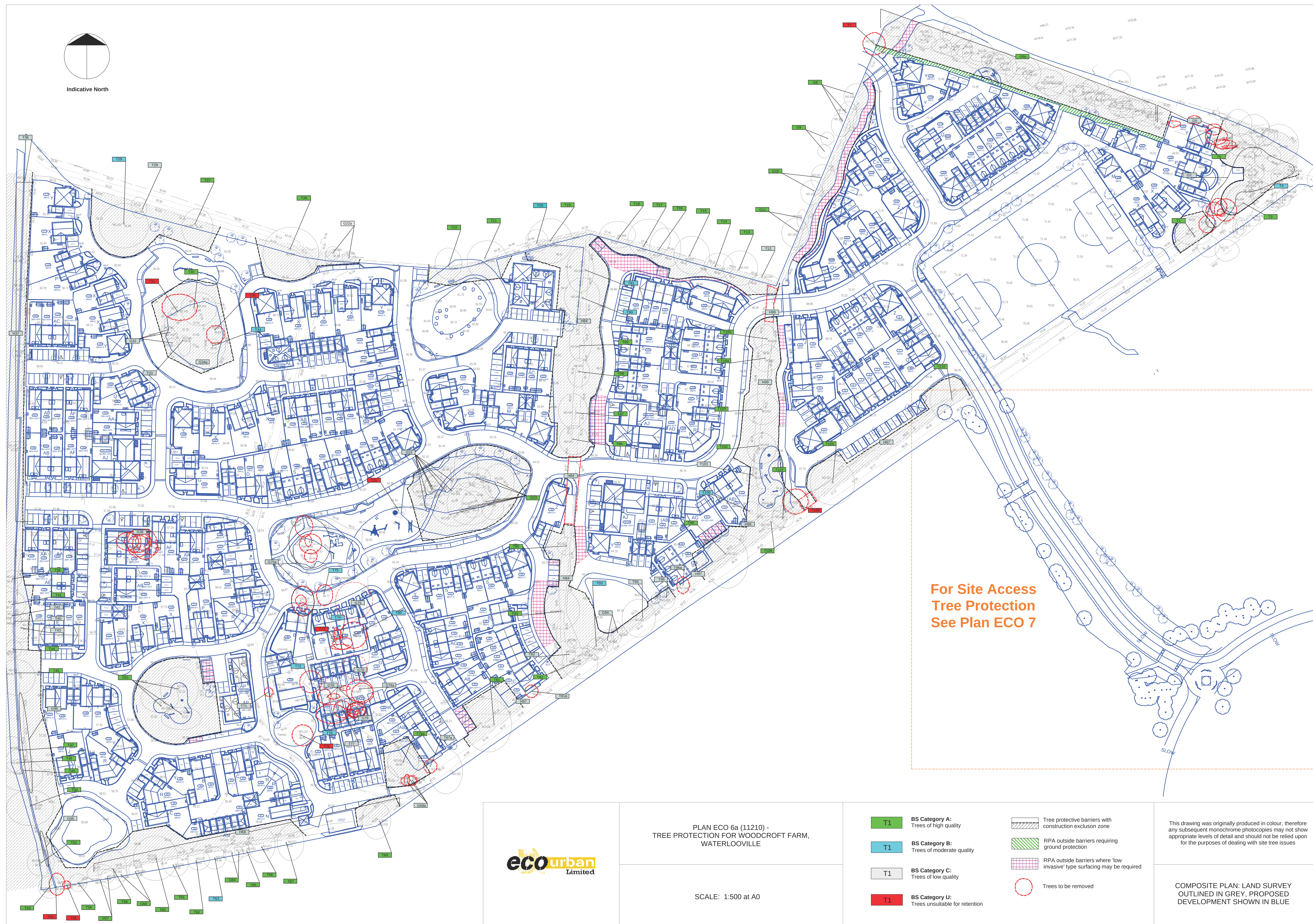
Date: **12 July 2013**

APPENDIX 1: TREE PROTECTION PLANS

1 AO and 1 A2 plan



Indicative North



PLAN ECO 6a (11210) -
TREE PROTECTION FOR WOODCROFT FARM,
WATERLOOVILLE

SCALE: 1:500 at A0

T1	BS Category A: Trees of high quality		Tree protective barriers with construction exclusion zone
T1	BS Category B: Trees of moderate quality		RPA outside barriers requiring ground protection
T1	BS Category C: Trees of low quality		RPA outside barriers where 'low invasive' type surfacing may be required
T1	BS Category U: Trees unsuitable for retention		Trees to be removed

This drawing was originally produced in colour, therefore
any subsequent monochrome photocopies may not show
appropriate levels of detail and should not be relied upon
for the purposes of dealing with site tree issues

COMPOSITE PLAN: LAND SURVEY
OUTLINED IN GREY, PROPOSED
DEVELOPMENT SHOWN IN BLUE

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Background fill colour represents BS 5837 (2012) categories: A Category trees have green backgrounds, B Category trees have light blue backgrounds, C Category trees have grey backgrounds and U Category trees have red backgrounds.

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m ²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
T1	Oak	16	84	-	-	-	-	-	-	-	-	8	4	8	8	2	M	Some crown asymmetry		A2	319	10.1
G2	Mixed sp incl. oak, ash & hawthorn	<12	<24	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	Young trees influenced by proximity to adjacent trees	FELL (PART OF GROUP)	C1	26	2.9
T3	Ash	16	84	-	-	-	-	-	-	-	-	8	8	8	8	3	M			A2	319	10.1
T4	Oak	13	78	-	-	-	-	-	-	-	-	4	4	4	4	4	M	Heavily pruned in the past, marginal B tree		B1	275	9.4
T5	Oak	18	86	-	-	-	-	-	-	-	-	9	9	9	9	5	M	Some crown asymmetry		A2	335	10.3
G6	Oak with mixed sp. understorey	<18	<80	-	-	-	-	-	-	-	-	-	10	-	10	4	M	Poorer quality trees, some severely pruned and declining	FELL	C1	290	9.6
G6a	Oak with mixed sp. understorey	<18	<80	-	-	-	-	-	-	-	-	-	10	-	10	4	M	Important landscape trees, poorer quality trees at southern end		A2	290	9.6
T7	Oak	12	93	-	-	-	-	-	-	-	-	5	7	5	7	3	M	DEAD	FELL	U	391	11.2

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
G8	Oak	<16	<95	-	-	-	-	-	-	-	-	-	10	-	10	3	M	Important landscape trees, stems covered in ivy, sever and reinspect		A2	408	11.4
G9	Oak	<10	<37	-	-	-	-	-	-	-	-	4	4	4	4	3	MA	Younger trees		A2	62	4.4
G10	Oak	<12	<105	-	-	-	-	-	-	-	-	-	10	-	10	3	M			A2	499	12.6
G11	Oak	<11	<125*	-	-	-	-	-	-	-	-	-	8	-	8	<3	M	One tree twin stemmed at base		A2	707	15.0
T12	Oak	11	80*	-	-	-	-	-	-	-	-	4	4	4	4	<3		Declining, stem covered in dense ivy	Sever ivy and reinspect	C1	290	9.6
T13	Oak	17	99	-	-	-	-	-	-	-	-	8	8	8	8	<3	M	With hawthorn understorey		A2	443	11.9
T14	Oak	16	63	-	-	-	-	-	-	-	-	4	3	4	3	<3	MA	With hawthorn understorey		A2	180	7.6
T15	Oak	15	122	-	-	-	-	-	-	-	-	10	10	10	10	<3	M	With hawthorn understorey		A2	673	14.6
T16	Oak	15	101	-	-	-	-	-	-	-	-	12	6	12	3	<3	M	Some crown asymmetry and browsing damage at base		A2	461	12.1
T17	Oak	16	105	-	-	-	-	-	-	-	-	14	6	14	12	<3	M	Some crown asymmetry and browsing damage at base		A2	499	12.6

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
T18	Oak	14	77	-	-	-	-	-	-	-	-	9	3	9	9	<3	M	Some crown asymmetry and browsing damage at base		A2	268	9.2
T19	Oak	16	104	-	-	-	-	-	-	-	-	10	10	10	8	<3	M	Storm damage	Remove damaged limbs	A2	489	12.5
T20	Oak	12	56	-	-	-	-	-	-	-	-	5	2	5	5	<3	MA	Influenced by proximity to adjacent tree, decay at base		B1	142	6.7
T21	Oak	15	92	-	-	-	-	-	-	-	-	8	8	8	8	<3	M			A2	383	11.0
T22	Oak	12	74	-	-	-	-	-	-	-	-	6	6	6	6	<3	M	Browsing damage at base with decay and some canopy dieback	MONITOR	Prelim inary A2	248	8.9
G22a	Hawthorn	5	30*	-	-	-	-	-	-	-	-	3	3	3	3	2	M	Small trees		C1	41	3.6
G23	Oak & ash	<20	<135	-	-	-	-	-	-	-	-	9	13	10	15	<3	M	Browsing damage at base		A2	824	15.0
G24	Ash & hawthorn	<19	<45*	-	-	-	-	-	-	-	-	7	5	8	7	<2	MA	Satellite group to G23. Influenced by their proximity to adjacent trees, some with structural defects, decay or leaning stems		C1	92	5.4

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
T25	Ash	9	25	-	-	-	-	-	-	-	-	3	3	3	3	2	Y	Dying, wounded on main stem	FELL	U	28	3.0
T26	Oak	19	126	-	-	-	-	-	-	-	-	13	12	13	9	<3	M			A2	718	15.0
T27	Ash	19	84*	-	-	-	-	-	-	-	-	9	10	12	6	<3	M	Tight fork at 3m with included bark. Unbalanced crown and thinning canopy.	MONITOR	A2	319	10.1
T28	Oak	17	66	-	-	-	-	-	-	-	-	5	4	2	4	<3	MA	Influenced by proximity to adjacent tree. Decay at base and dieback in upper canopy		C1	197	7.9
T29	Oak	16	128	-	-	-	-	-	-	-	-	11	13	13	12	<3	M	Wounding at base with decay	MONITOR	B1	741	15.0
T30	Oak	16	101	-	-	-	-	-	-	-	-	10	11	9	6	<3	M	Some crown asymmetry		A2	461	12.1
T31	Ash	14	85*	-	-	-	-	-	-	-	-	10	6	10	8	<3	M	Advanced decay in main stem	FELL	U	327	10.2
G32	Hawthorn	<5	<35	-	-	-	-	-	-	-	-	3	3	3	3	-	M	Small trees with stem damage		C1	55	4.2
T33	Crab apple	8	68	-	-	-	-	-	-	-	-	3	9	4	2	1	OM	Unbalanced crown, decay in main stem		C1	209	8.2
T34	Hawthorn	9	59	-	-	-	-	-	-	-	-	3	3	3	3	<1	OM	Small tree		B2/B3	157	7.1
G34a	Elder	5	<30*	-	-	-	-	-	-	-	-	3	3	3	3	<2	M	Small trees/shrubs		C1	41	3.6

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
T35	Ash	<10	50	-	-	-	-	-	-	-	-	4	6	6	6	<3	MA	Advanced decay in main stem	FELL	U	113	6.0
T36	Holly	9	50	-	-	-	-	-	-	-	-	4	4	4	4	<2	M	Small offsite tree		C1	113	6.0
H37	Hazel, hawthorn with scattered ash	<10	<35*	-	-	-	-	-	-	-	-	-	3	-	w	-	M	Unmanaged, boundary hedge	Cut back where appropriate	C1	55	4.2
G38	Ash	<18	<35	-	-	-	-	-	-	-	-	6	-	6	-	-	MA	Multi stemmed trees with tight forks and poor architectural framework	FELL	C1	55	4.2
T39	Ash	13	45*	-	-	-	-	-	-	-	-	3	6	6	4	<3	M	Stem covered in dense ivy, sever and reinspect		A2	92	5.4
T40	Hawthorn	9	<30	-	-	-	-	-	-	-	-	3	3	3	5	<3	M	Unbalanced crown and stem covered in dense ivy, sever and reinspect		C1	41	3.6
T41	Ash	16	75*	-	-	-	-	-	-	-	-	10	8	8	8	<3	M	Stem covered in dense ivy, sever and reinspect		A2	254	9.0
T42	Oak	12	60	-	-	-	-	-	-	-	-	12	0	0	6	<3	M	Severely unbalanced due to proximity to adjacent tree		C1	163	7.2

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m ²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
T43	Ash	18	105	-	-	-	-	-	-	-	-	4	6	7	6	<3	M	Twin stemmed at 1.5m with tight fork and wounding on stem		C1	499	12.6
T44	Field maple	<12	45*	-	-	-	-	-	-	-	-	6	6	6	6	2	M			A2	92	5.4
T45	Oak	17	130*	-	-	-	-	-	-	-	-	9	12	9	11	<3	M			A2	765	15.0
G46	Hazel & holly	<4	<45*	-	-	-	-	-	-	-	-	3	3	3	3	-	M	Small trees/shrubs		C1	92	5.4
T47	Oak	16	>125	-	-	-	-	-	-	-	-	7	10	4	9	4	M			A2	707	15.0
T48	Oak	18	110*	-	-	-	-	-	-	-	-	4	3	4	5	4	M	Stem covered in dense ivy, sever and reinspect		A2	547	13.2
T49	Beech	16	>125	-	-	-	-	-	-	-	-	10	10	10	10	<3	OM	Twin stemmed at 2m, large girth		A2	707	15.0
T50	Oak	18	110*	-	-	-	-	-	-	-	-	10	10	10	10	<3	M	Stem covered in dense ivy, sever and reinspect		A2	547	13.2
G51	Oak	<17	<125	-	-	-	-	-	-	-	-	11	10	11	10	<3	M	Some dieback in upper canopy		A2	707	15.0
T52	Beech	16	71	-	-	-	-	-	-	-	-	10	10	6	10	<3	M	Some crown asymmetry		A2	228	8.5
T53	Oak	19	76	-	-	-	-	-	-	-	-	5	4	5	4	<4	M			A2	261	9.1
T54	Beech	19	105*	-	-	-	-	-	-	-	-	5	6	5	3	4	M	Twin stemmed at 1m, tight fork with included bark	FELL	U	499	12.6

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
T55	Ash	7	30*	-	-	-	-	-	-	-	-	-	-	-	-	M	Dead	FELL	U	41	3.6	
T56	Yew	8	56	-	-	-	-	-	-	-	-	5	5	5	5	<3	M			A2	142	6.7
G57	Oak	<18	<65*	-	-	-	-	-	-	-	-	9	9	9	9	<4	MA	Stems covered in dense ivy	Sever ivy and reinspect	A2	191	7.8
T58	Oak	18	77	-	-	-	-	-	-	-	-	12	8	8	6	<3	M			A2	268	9.2
G59	Oak	<18	<40*	-	-	-	-	-	-	-	-	5	5	5	5	<4	MA	Stem covered in dense ivy, sever and reinspect		A2	72	4.8
T60	Oak	18	112	-	-	-	-	-	-	-	-	11	9	10	10	<4	M	Browsing damage at base		A2	567	13.4
T61	Oak	<18	90	-	-	-	-	-	-	-	-	6	6	6	6	4	M			A2	366	10.8
T62	Oak	<18	90*	-	-	-	-	-	-	-	-	6	6	6	6	4	M	Stem covered in dense ivy, sever and reinspect		A2	366	10.8
T63	Oak	<16	62	-	-	-	-	-	-	-	-	5	5	3	5	4	M	Unbalanced crown		B1	174	7.4
G64	Oak	<16	<54	-	-	-	-	-	-	-	-	6	6	6	6	4	MA			A2	132	6.5
T65	Oak	<16	32*	-	-	-	-	-	-	-	-	3	3	3	3	4	MA	Stem covered in dense ivy, sever and reinspect		A2	46	3.8
T66	Oak	<16	75*	-	-	-	-	-	-	-	-	8	8	8	8	4	M	Stem covered in dense ivy, sever and reinspect		A2	254	9.0

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
T67	Oak	<16	75*	-	-	-	-	-	-	-	-	7	7	7	7	<3	M	Stem covered in dense ivy, sever and reinspect		A2	254	9.0
H68	Hawthorn	<4	<20	-	-	-	-	-	-	-	-	3	-	3	-	-	M	Hedge		C1	18	2.4
T69	Oak	<18	90*	-	-	-	-	-	-	-	-	10	7	7	7	4	M	Stem covered in dense ivy, sever and reinspect		A2	366	10.8
G69a	Leyland cypress	12	40*	-	-	-	-	-	-	-	-	<3	<3	<3	<3	4	MA	Unremarkable domestic conifer type planting	FELL	C1	72	4.8
T70	Monterey cypress	13	<120	-	-	-	-	-	-	-	-	5	5	5	5	3	M	Multi stemmed with tight fork, extensive dieback and brown foliage in upper crown	FELL	U	651	14.4
T71	Ash	10	49	-	-	-	-	-	-	-	-	3	3	3	3	<3	M	Severely pruned	FELL	C1	109	5.9
T72	Yew	<8	42*	-	-	-	-	-	-	-	-	6	6	6	6	<2	M	Stem covered in dense ivy, sever and reinspect	FELL	B1	80	5.0
T73	Pear	7	36	-	-	-	-	-	-	-	-	0	0	7	4	2	M	Severely unbalanced with cavity in main stem		U	59	4.3
T74	Monterey cypress	17	83	-	-	-	-	-	-	-	-	5	5	5	5	3	M		FELL	B1	312	10.0
T75	Walnut	7	30	-	-	-	-	-	-	-	-	4	4	4	4	2	MA	Thinning canopy. Marginal B Tree	FELL	B1	41	3.6

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
G75a	Hawthorn, ash & goat willow	6	50*	-	-	-	-	-	-	-	-	4	4	4	4	2	MA	Small ivy clad trees with poor structural framework	FELL	C1	113	6.0
T76	Weeping willow	10	54	-	-	-	-	-	-	-	-	7	7	7	7	<1	MA		FELL	B1	132	6.5
T77	Cherry	<12	36	-	-	-	-	-	-	-	-	4	4	4	4	3	MA	Twin stemmed at 3m with tight fork	FELL	C1	59	4.3
G78	Mixed sp incl. hawthorn & holly	6	40*	-	-	-	-	-	-	-	-	4	4	4	4	-	MA	Small trees	FELL	C1	72	4.8
T78a	Ash	16	80*	-	-	-	-	-	-	-	-	11	11	11	11	-	M	Stem covered in dense ivy, sever and reinspect		A2	290	9.6
G79	Ash with hawthorn understory	<13	<45*	-	-	-	-	-	-	-	-	-	8	-	8	-	M	Stem covered in dense ivy, sever and reinspect. Some with defects and poor structural framework.	FELL	C1	92	5.4
G79a	Holly	9		-	-	-	-	-	-	-	-	4	4	4	4	-	M	Small trees	FELL	C1	0	0.0
T80	Ash	15	40*	-	-	-	-	-	-	-	-	7	7	7	7	-	M	Stem covered in dense ivy, sever and reinspect	FELL	B1	72	4.8
T81	Oak	17	125	-	-	-	-	-	-	-	-	12	11	10	11	3	M			A2	707	15.0

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m ²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
T81a	Ash	11	25*	-	-	-	-	-	-	-	-	3	3	3	3	3	MA	Small ivy clad tree	FELL	C1	28	3.0
T82	Oak	10	43	-	-	-	-	-	-	-	-	4	6	1	1	3	MA	Severely unbalanced crown due to proximity to adjacent tree		C1	84	5.2
T83	Oak	16	112	-	-	-	-	-	-	-	-	9	10	10	9	3	M	Browsing damage at base		A2	567	13.4
H84	Mixed sp. mainly hawthorn	<4	<20*	-	-	-	-	-	-	-	-	-	1	-	1	-	M		FELL (PART OF HEDGE)	C1	18	2.4
T85	Oak	10	80	-	-	-	-	-	-	-	-	5	5	5	5	<3	MA			A2	290	9.6
T86	Oak	12	84*	-	-	-	-	-	-	-	-	4	5	5	5	<3	MA	Stem covered in dense ivy, sever and reinspect		A2	319	10.1
T87	Oak	16	100*	-	-	-	-	-	-	-	-	8	8	8	8	<3	M			A2	452	12.0
T88	Oak	14	102*	-	-	-	-	-	-	-	-	7	7	7	7	<3	M	Stem covered in dense ivy, sever and reinspect		A2	471	12.2
T89	Oak	17	85	-	-	-	-	-	-	-	-	8	8	7	7	<3	M			A2	327	10.2
T90	Oak	17	107	-	-	-	-	-	-	-	-	9	10	9	10	<3	M	Decay at base (<i>Ganoderma</i> sp infection)	Further investigatio n required	Prelim inary B1	518	12.8
T91	Oak	16	92	-	-	-	-	-	-	-	-	10	10	9	10	<3	M	Thin crown	MONITOR	B1	383	11.0
T92	Oak	17	85	-	-	-	-	-	-	-	-	7	8	6	8	<3	M			A2	327	10.2

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
T93	Wild service	10	40	-	-	-	-	-	-	-	-	3	3	3	3	<1	M			B3	72	4.8
G94	Ash	<12	<36*	-	-	-	-	-	-	-	-	4	4	4	4	-	Y	Young multi stemmed trees with poor architectural framework		C1	59	4.3
T95	Oak	14	110*	-	-	-	-	-	-	-	-	8	9	8	9	<3	M	Declining	MONITOR	C1	547	13.2
T96	Ash	<12	27	-	-	-	-	-	-	-	-	4	4	4	4	-	Y	Young tree with poor architectural framework and wound and decay in main stem		C1	33	3.2
T96a	Oak	4	26*	-	-	-	-	-	-	-	-	3	5	1	4	3	Y	Severely unbalanced	FELL	C1	31	3.1
H97	Mixed sp. mainly hawthorn	<1	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	MA	Hedge	Fell part of hedge and cut back where appropriate	C1	5	1.2
T97a	Ash	12	22	-	-	-	-	-	-	-	-	2	2	2	2	5	Y	Tall drawn up form		C1	22	2.6
T98	Oak	19	111	-	-	-	-	-	-	-	-	11	4	10	11	<3	M	Unbalanced crown, with extensive deadwood		A2	557	13.3
H99	Mixed sp. mainly hawthorn	<3	<20*	-	-	-	-	-	-	-	-	-	1	-	1	-	M	Hedge		C1	18	2.4

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
T100	Field maple	7	30*	-	-	-	-	-	-	-	-	3	3	3	3	<2	M	Multi stemmed tree		B2	41	3.6
T101	Oak	10	>125	-	-	-	-	-	-	-	-	5	10	5	5	-	OM	Ganoderma sp infection and some crown dieback		C3	707	15.0
T102	Oak	13	81	-	-	-	-	-	-	-	-	6	10	9	7	<3	M	Some crown asymmetry		A2	297	9.7
T103	Oak	12	84	-	-	-	-	-	-	-	-	7	8	8	8	<3	M			A2	319	10.1
T104	Oak	11	68	-	-	-	-	-	-	-	-	6	8	7	8	<2	MA	Multi stemmed at 2m		A2	209	8.2
T105	Oak	11	65*	-	-	-	-	-	-	-	-	6	7	4	7	<2	MA	Stem covered in dense ivy, sever and reinspect		A2	191	7.8
T106	Oak	<16	82	-	-	-	-	-	-	-	-	4	4	4	4	<3	M	Stem covered in dense ivy, sever and reinspect		A2	304	9.8
T107	Oak	<16	92	-	-	-	-	-	-	-	-	4	4	4	4	<3	M	Stem covered in dense ivy, sever and reinspect		A2	383	11.0
T108	Oak	14	106	-	-	-	-	-	-	-	-	8	5	0	5	-	M	Cavity in main stem with brown rot	FELL	U	508	12.7
T109	Oak	19	90	-	-	-	-	-	-	-	-	9	10	6	10	4	M			A2	366	10.8
T110	Oak	15	86	-	-	-	-	-	-	-	-	-	-	-	-	-	M			A2	335	10.3
T111	Oak	<18	63	-	-	-	-	-	-	-	-	7	3	7	5	4	M	Some crown asymmetry		B2	180	7.6

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m ²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
T112	Oak	<18	43	-	-	-	-	-	-	-	-	2	2	8	6	4	M	Unbalanced crown due to proximity to adjacent tree		B2	84	5.2
T113	Oak	<18	86*	-	-	-	-	-	-	-	-	10	7	6	5	3	M	Unbalanced crown due to proximity to adjacent tree. Ivy on main stem		B2	335	10.3
T114	Oak	<18	37*	-	-	-	-	-	-	-	-	2	3	7	2	3	MA	Unbalanced crown due to proximity to adjacent tree. Ivy on main stem	FELL	B2	62	4.4
T115	Oak	<18	44*	-	-	-	-	-	-	-	-	2	4	4	2	4	MA	Unbalanced crown due to proximity to adjacent tree. Ivy on main stem	FELL	B2	88	5.3
T116	Oak	<18	38*	-	-	-	-	-	-	-	-	2	1	3	2	4	MA	Unbalanced crown due to proximity to adjacent tree. Ivy on main stem	FELL	B2	65	4.6
T117	Oak	<18	45*	-	-	-	-	-	-	-	-	3	2	5	3	4	MA	Lower stem defect. Unbalanced crown due to proximity to adjacent tree. Ivy on main stem	FELL	C1	92	5.4

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m ²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
T118	Oak	<14	26*	-	-	-	-	-	-	-	-	-	2	6	1	2	Y	Severely unbalanced crown due to proximity to adjacent tree. Ivy on main stem	FELL	C1	31	3.1
T119	Oak	<18	57*	-	-	-	-	-	-	-	-	5	4	10	4	4	M	Unbalanced crown due to proximity to adjacent tree. Ivy on main stem	FELL	B2	147	6.8
T120	Oak	<18	69*	-	-	-	-	-	-	-	-	6	3	-	2	4	M	Unbalanced crown due to proximity to adjacent tree. Ivy on main stem	FELL	B2	215	8.3
T121	Oak	<18	47	-	-	-	-	-	-	-	-	7	5	4	4	4	M	Unbalanced crown due to proximity to adjacent tree. Ivy on main stem	FELL	B2	100	5.6
T122	Oak	<18	45*	-	-	-	-	-	-	-	-	3	1	4	3	4	MA	Unbalanced crown due to proximity to adjacent tree. Ivy on main stem	FELL	B2	92	5.4

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m ²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
T123	Oak	<18	32*	-	-	-	-	-	-	-	-	-	1	3	1	3	Y	Unbalanced crown due to proximity to adjacent tree. Ivy on main stem. Storm damage in upper canopy	FELL	C1	46	3.8
T124	Oak	<18	76*	-	-	-	-	-	-	-	-	11	8	4	10	4	M	Unbalanced crown due to proximity to adjacent tree. Ivy on main stem	FELL	B2	261	9.1
T125	Oak	<18	50*	-	-	-	-	-	-	-	-	2	1	3	3	4	M	Wound on main stem and extensive fire damage. Ivy on main stem	FELL	U	113	6.0
T126	Oak	<18	47*	-	-	-	-	-	-	-	-	4	3	4	6	4	M	Fire damage to main stem and buttress area	MONITOR	C1	100	5.6
T127	Oak	<18	64*	-	-	-	-	-	-	-	-	2	4	11	7	4	M	Unbalanced crown due to proximity to adjacent tree. Ivy on main stem		B2	185	7.7
T128	Goat willow	9	80*	-	-	-	-	-	-	-	-	4	2	6	4	N/A	M	Multi stemmed at base with poor architectural framework		C1	290	9.6
T129	STUMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FELL	U	-	-

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
T130	STUMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FELL	U	-	-	
T131	Oak	13	48	-	-	-	-	-	-	-	-	4	4	5	5	4	MA	Some crown asymmetry	FELL	B1	104	5.8
T132	STUMP	-	<65*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FELL	U	191	7.8	
G133	Goat willow, hawthorn & ash	<9	12*	-	-	-	-	-	-	-	-	3	4	6	4	N/A	MA	Closely spaced trees with poor architectural framework	FELL	C1	7	1.4
T134	Hawthorn	3	55*	-	-	-	-	-	-	-	-	1	2	2	-	N/A	Y	Small, unbalanced tree	FELL	C1	137	6.6
T135	Goat willow	9	35*	-	-	-	-	-	-	-	-	4	4	4	3	N/A	M	Poor architectural framework	FELL	C1	55	4.2
G136	Ash	<12	66	-	-	-	-	-	-	-	-	4	5	3	4	3	Y	Closely spaced trees with similar characteristics. Poor architectural framework, some with tight forks and included bark	FELL	C1	197	7.9
T137	Ash	10	<65*	-	-	-	-	-	-	-	-	7	6	6	4	3	MA	Multi stemmed at base with tight forks and poor architectural framework	FELL	C1	191	7.8
T138	Ash	13	34	-	-	-	-	-	-	-	-	7	6	6	3	3	MA	Some crown asymmetry		B2	52	4.1

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m ²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
T139	Oak	<14	35	-	-	-	-	-	-	-	-	5	3	3	4			Some crown asymmetry		B2	55	4.2
T140	Oak	4	21*	-	-	-	-	-	-	-	-	-	-	-	-	-	MA	High stump	FELL	U	20	2.5
T141	Oak	<14	33	-	-	-	-	-	-	-	-	3	2	3	4	4	MA	Some crown asymmetry		B2	49	4.0
T142	Oak	<14	18	-	-	-	-	-	-	-	-	3	1	1	4	3	Y	Some crown asymmetry		B2	15	2.2
T143	Oak	<14	37	-	-	-	-	-	-	-	-	3	2	5	6	3	Y	Some crown asymmetry		B2	62	4.4
T144	Oak	<14	42*	-	-	-	-	-	-	-	-	3	4	6	4	3	MA	Some crown asymmetry. Ivy on main stem		B2	80	5.0
T145	Norway maple	6	20	-	-	-	-	-	-	-	-	3	3	2	3	3	Y	Small tree		B2	18	2.4
T146	Ash	10	21	-	-	-	-	-	-	-	-	1	4	4	3	3	Y	Small tree		B2	20	2.5
T147	Ash	13	16	-	-	-	-	-	-	-	-	1	1	3	1	3	Y	Unbalanced crown due to proximity to adjacent trees.		B2	12	1.9
T148	Ash	13	26	-	-	-	-	-	-	-	-	-	1	7	2	4	MA	Unbalanced crown due to proximity to adjacent tree.		B2	31	3.1
T149	Ash	14	21	-	-	-	-	-	-	-	-	2	2	3	3	4	MA	Some crown asymmetry.		B2	20	2.5
T150	Oak	14	27	-	-	-	-	-	-	-	-	3	3	3	4	4	MA	Some crown asymmetry.		B2	33	3.2

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
T151	Oak	15	32	-	-	-	-	-	-	-	-	5	3	4	3	4	MA	Some crown asymmetry, decay at base		C1	46	3.8
T152	Oak	15	44	-	-	-	-	-	-	-	-	5	5	7	3	4	MA	Some crown asymmetry.		B2	88	5.3
T153	Oak	7	27	-	-	-	-	-	-	-	-	-	4	5	1	3	MA	Unbalanced crown due to proximity to adjacent tree.		B2	33	3.2
G154	Ash	11	<14*	-	-	-	-	-	-	-	-	1	1	1	1	N/A	Y	Regrowth from cut stumps	FELL	U	9	1.7
G155	Ash	14	<15*	-	-	-	-	-	-	-	-	-	2	3	2	3	Y	Unbalanced crown due to proximity to adjacent tree. Onset of decline	FELL	C1	10	1.8
T156	Oak	8	41	-	-	-	-	-	-	-	-	5	5	6	5	4	MA	Some crown asymmetry	FELL	B2	76	4.9
T157	Ash	10	17	-	-	-	-	-	-	-	-	2	3	3	1	3	Y	Some crown asymmetry	FELL	B2	13	2.0
T158	Oak	15	43	-	-	-	-	-	-	-	-	5	5	4	4	4	MA	Some crown asymmetry		B2	84	5.2
T159	Oak	10	62*	-	-	-	-	-	-	-	-	6	5	6	8	3	MA	Ivy on main stem, storm damage to lower limbs	FELL	B2	174	7.4
T160	Oak	5	20*	-	-	-	-	-	-	-	-	2	2	2	2	N/A	Y	Small ivy shrouded tree	FELL	C1	18	2.4

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
T161	Oak	15	94	-	-	-	-	-	-	-	-	7	4	5	6	4	M	Twin stemmed at ground level, some crown asymmetry	FELL	B2	400	11.3
T162	Ash	5	40	-	-	-	-	-	-	-	-	5	4	-	6	N/A	Y	Twin stemmed with tight fork and severely unbalanced	FELL	C1	72	4.8
G163	Ash	<10	<74*	-	-	-	-	-	-	-	-	4	3	4	3	N/A	M	Regrowth from old coppiced stump with decay	FELL	C1	248	8.9
T164	Oak	15	58*	-	-	-	-	-	-	-	-	9	4	9	6	4	M	Ivy on main stem, some crown asymmetry	FELL	B2	152	7.0
T165	Oak	11	73	-	-	-	-	-	-	-	-	10	6	10	4	3	M	Leaning stem	FELL	B2	241	8.8
T166	DEAD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FELL	U	-	-
G167	Oak	13	42*	-	-	-	-	-	-	-	-	5	4	6	4	3	M	Some crown asymmetry		B2	80	5.0
G168	Ash	14	<74	-	-	-	-	-	-	-	-	6	4	7	4	4	M	Multi stemmed with decay at base		C1	248	8.9
T169	Goat willow	4	55*	-	-	-	-	-	-	-	-	2	4	3	4	N/A	M	Small tree with poor architectural framework		C1	137	6.6
T170	Oak	14	40	-	-	-	-	-	-	-	-	7	4	5	3	4	MA	Some crown asymmetry.		B2	72	4.8
T171	Goat willow	3	-	-	-	-	-	-	-	-	-	-	-	-	-	N/A	M	Collapsed tree	FELL	U	-	-
T172	Oak	10	-	-	-	-	-	-	-	-	-	-	-	-	-	N/A	MA	Dead	FELL	U	-	-

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m ²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
G173	Oak	11	27	-	-	-	-	-	-	-	-	3	3	4	3	3	MA	Some crown asymmetry		B2	33	3.2
T174	Oak	12	58*	-	-	-	-	-	-	-	-	12	7	10	7	3	M	Ivy on main stem. Some crown asymmetry		B2	152	7.0
T175	Oak	<3	24*	-	-	-	-	-	-	-	-	-	3	5	3	N/A	Y	Small squat tree influenced by proximity to adjacent tree		C1	26	2.9
T176	Oak	13	34*	-	-	-	-	-	-	-	-	3	3	8	3	3	MA	Unbalanced crown due to proximity to adjacent trees.		B2	52	4.1
G177	Ash	14	95*	-	-	-	-	-	-	-	-	6	5	5	6	3	M	Old coppiced stump with decay and bacterial canker		C1	408	11.4
G178	Oak	12	<37	-	-	-	-	-	-	-	-	3	4	4	2	3	MA	Two trees with similar characteristics, some crown asymmetry		B2	62	4.4
G179	Oak	11	<30*	-	-	-	-	-	-	-	-	1	1	5	4	3	MA	Closely spaced trees with similar characteristics, some crown asymmetry		B2	41	3.6
T180	Ash	9	26	-	-	-	-	-	-	-	-	4	4	4	4	3	Y	Small tree. Marginal B tree due to size		B2	31	3.1

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m ²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
T181	Ash	9	15	-	-	-	-	-	-	-	-	1	2	1	2	3	Y	Small tree. Marginal B tree due to size		B2	10	1.8
T182	Ash	10	17	-	-	-	-	-	-	-	-	3	3	3	3	3	Y	Small tree. Marginal B tree due to size		B2	13	2.0
T183	Sycamore	7	15	-	-	-	-	-	-	-	-	2	2	2	2	3	Y	Small tree. Marginal B tree due to size		B2	10	1.8
T184	Oak	17	72	-	-	-	-	-	-	-	-	9	7	7	4	4	M	Some crown asymmetry		B2	235	8.6
T185	Oak	18	61	-	-	-	-	-	-	-	-	7	5	6	5	4	M	Some crown asymmetry		B2	168	7.3
T186	Oak	10	42*	-	-	-	-	-	-	-	-	9	8	-	-	4	M	Severely unbalanced. Ivy on main stem	Sever ivy and reinspect	C1	80	5.0
T187	Oak	10	31	-	-	-	-	-	-	-	-	6	8	-	-	4	M	Severely unbalanced. Ivy on main stem	Sever ivy and reinspect	C1	43	3.7
T188	Ash	14	33	-	-	-	-	-	-	-	-	3	3	3	3	5	MA	Tall drawn up form		B2	49	4.0
T189	Oak	15	74	-	-	-	-	-	-	-	-	7	9	7	8	4	M	Stem and scaffold branches covered in dense ivy	Sever ivy and reinspect	B2	248	8.9
T190	Oak	14	47	-	-	-	-	-	-	-	-	4	4	5	6	4	MA	Some crown asymmetry		B2	100	5.6
T191	Oak	14	39	-	-	-	-	-	-	-	-	5	5	2	4	4	MA	Some crown asymmetry		B2	69	4.7

APPENDIX 2: TREE SCHEDULE AND INVENTORY

Tree No.	Species	Ht (m)	Single stem dia. at 1.5m (cm)	STEM DIAMETERS (MULTIPLE)								Branch spread (m)				Height above ground (m)	Age class	Notes	Management proposals	BS cat	RPA area (m ²)	RPA radius (m)
				Multi stemmed trees with 1 - 5 stems (cm)					Multi stemmed trees with 1 - 5 stems combined (cm)	Multi stemmed trees >5 stems												
				1	2	3	4	5		Mean stem dia. (cm)	No. of stems	N	E	S	W							
T192	Goat willow	11	35	-	-	-	-	-	-	-	-	4	5	5	1	3	M	Small unbalanced tree with tight fork at 1m		C1	55	4.2
T193	Oak	13	72	-	-	-	-	-	-	-	-	6	10	9	9	3	M	Some crown asymmetry		B2	235	8.6
T194	Oak	<13	44	-	-	-	-	-	-	-	-	4	6	4	6	4	MA	Stem covered in dense ivy. Some crown asymmetry	Sever ivy and reinspect	B2	88	5.3
T195	Oak	<13	35	-	-	-	-	-	-	-	-	4	4	2	2	4	MA	Stem covered in dense ivy. Some crown asymmetry	Sever ivy and reinspect	B2	55	4.2
T196	Oak	12	46	-	-	-	-	-	-	-	-	6	7	6	3	4	MA	Some crown asymmetry		B2	96	5.5
G197	Hawthorn	<4	10*	-	-	-	-	-	-	-	-	-	-	-	-	2	Y	Small trees		C1	5	1.2
G198	Oak	15	<58	-	-	-	-	-	-	-	-	6	9	6	5	4	M	Some crown asymmetry		B2	152	7.0
T199	Oak	9	30	-	-	-	-	-	-	-	-	3	5	4	2	3	MA	Stem and canopy covered in dense ivy. Poor architectural framework		C1	41	3.6
G200	Oak	<18	<50	-	-	-	-	-	-	-	-	5	5	8	5	4	MA	Some crown asymmetry		B2	113	6.0

APPENDIX 2: TREE SCHEDULE AND INVENTORY

ABBREVIATIONS:

Abbreviations	Meaning	Abbreviations	Meaning	Abbreviations	Meaning
T	Individual tree	M	Mature	RPA	Root Protection Area
G	Groups of trees	MA	Maturing	<	Less than
H	Hedge	Y	Young	>	More than

TREE SCHEDULE GUIDANCE NOTES:

Tree number	Assigned during the site visit and also referenced on the plan in Appendix 1.
Species	Common name and referenced to scientific name in the above list. Where I have some doubt over the actual tree species, the genus will have been noted followed by sp. Where trees are numerous and present in groups, not every individual species may have been noted.
Height	Measurement of total tree height using a laser hypsometer to nearest metre.
Stem diameters	Measurement of stem diameter either at 1.5m above ground (or in accordance with BS guidance where trees have multiple stems) with a forester's girth measuring tape. Diameters followed by asterisk symbol indicate estimated diameters because of access difficulties, presence of ivy or other obstructions. Where trees are present in a group, the tree with the largest stem diameter within the group will have been measured/estimated.
Branch spread	Where appropriate and where ground conditions allow, an estimate of the crown spread at each of the cardinal compass points. Where only part of the site is affected by trees, measurement may be in one or two directions only
Existing height above ground level	Distance in metres to first significant branch or canopy
Age class	Simplistic estimate of tree age in one of FOUR categories (young, maturing, mature or over mature).
Notes	Although this document is not intended to be a full and detailed report on tree health and safety, any significant structural defects or physiological conditions have been identified where these were visible. Where no entries are recorded, this indicates no observable issues were identified. Where there is restricted access to the base of a tree, its attributes are assessed from the nearest point of access. Climbing inspections are not carried out during a walkover tree survey and, if heavy ivy is present, tree condition is assessed from what can be seen from the ground.

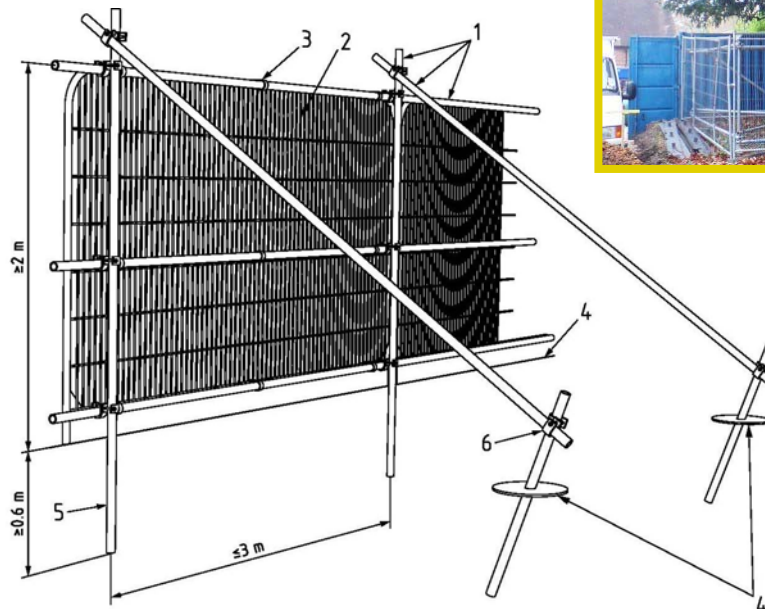
APPENDIX 2: TREE SCHEDULE AND INVENTORY

Management proposals	<i>The inspection of all trees was of a preliminary nature and only defects visible from the ground have been identified. Each individual tree may not have been inspected closely because of access difficulties and only defects visible from the inspection point have been identified. Monitoring may be indicated where tree risk can be adequately managed by increased frequency of site inspections. Further investigation may be indicated where additional data may be required beyond a purely visual assessment. However, a full post development tree inspection is recommended to establish that the trees retained during construction pose acceptable levels of risk once the development has been completed.</i>
BS 5837 (2012) Category	<i>Either U, A, B or C based on the BS 5837 (2012) guidance.</i>
RPA and RPA radius	<i>RPA and RPA radius calculations have been undertaken in accordance with the guidance set out in BS 5837 (2012).</i>

TREE INVENTORY:

Common Tree Names	Scientific Tree Names		Common Tree Names	Scientific Tree Names
Ash	<i>Fraxinus excelsior</i>		Monterey cypress	<i>Cupressus macrocarpa</i>
Beech	<i>Fagus sylvatica</i>		Norway maple	<i>Acer platanoides</i>
Cherry	<i>Prunus sp</i>		Oak	<i>Quercus robur</i>
Crab apple	<i>Malus sp</i>		Pear	<i>Pyrus sp</i>
Elder	<i>Sambucus nigra</i>		Sycamore	<i>Acer pseudoplatanus</i>
Field maple	<i>Acer campestre</i>		Walnut	<i>Juglans regia</i>
Goat willow	<i>Salix caprea</i>		Wild service	<i>Sorbus torminalis</i>
Hawthorn	<i>Crataegus monogyna</i>		Weeping willow	<i>Salix babylonica / x sepulcralis 'Chrysocoma'</i>
Hazel	<i>Corylus avellana</i>		Yew	<i>Taxus baccata</i>
Holly	<i>Ilex aquifolium</i>			

APPENDIX 3: ILLUSTRATIVE SPECIFICATION FOR TREE PROTECTION BARRIERS



Key

- 1 Standard scaffold poles
- 2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
- 3 Panels secured to uprights and cross-members with wire ties
- 4 Ground level
- 5 Uprights driven into the ground until secure (minimum depth 0.6 m)
- 6 Standard scaffold clamps

Illustration taken from British Standard 5837 (2012): Trees in relation to design, demolition and construction – Recommendations.

The default specification should consist of a vertical and horizontal scaffold framework, well braced to resist impacts. The vertical tubes should be spaced at a maximum interval of 3 m and driven securely into the ground. Onto this framework, welded mesh panels should be securely fixed.

– BS 5837 (2012)

Ref: Tree Protection Barriers (Type 1)	Drawing No. TPB1
Scale: N/A	

APPENDIX 4: ILLUSTRATIVE SPECIFICATION FOR 'LOW INVASIVE' TYPE SURFACING IN RPAs

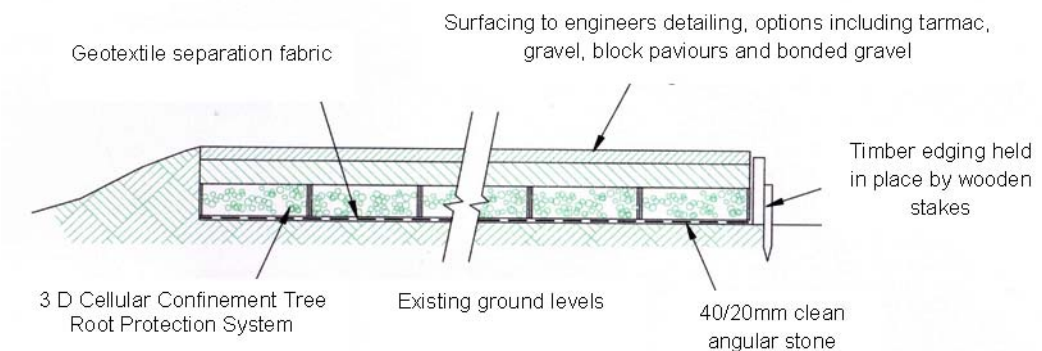
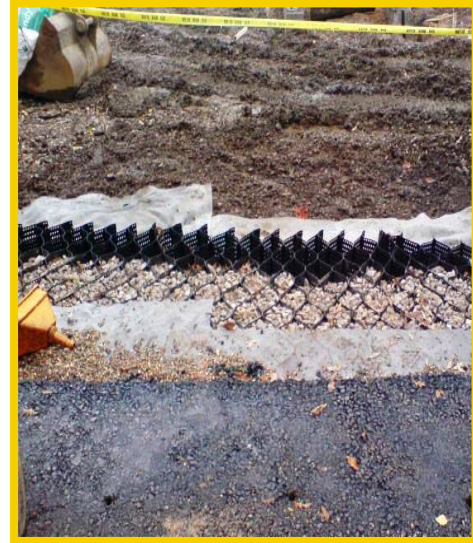


Illustration adapted from original drawings provided by Geosynthetics Ltd.

Appropriate sub-base options for new hard surfacing include three-dimensional cellular confinement systems. Alternatively, piles, pads or elevated beams can be used to support surfaces to bridge over the RPA or, following exploratory investigations to determine location, to provide support within the RPA while allowing the retention of roots greater than 25 mm in diameter.

– BS 5837 (2012)

Ref: No dig surfacing	Drawing No. NDS 1
Scale: N/A	

APPENDIX 4: ILLUSTRATIVE SPECIFICATION FOR 'LOW INVASIVE' TYPE SURFACING IN RPAs

CellWeb



The CellWeb System uniquely prevents rutting action of sub-soils by confining infill material within the hoop structure of the panel, increasing the infills shear strength. The use of a CellWeb System increases the load capacity of granular infill by up to 50% reducing the overall construction depth required. Perforated cell walls permit through drainage and also provides frictional interlock of the infill again increasing the shear strength of the system.

A non woven geotextile filtration/separation membrane is used beneath the system to prevent migration of materials and also to aid with drainage vertically through the system.

The CellWeb panels are infilled with a clean angular gravel which provides load support and permits air and moisture transfer to the roots ensuring the long term preservation of the tree root structure. (fig. 5)

Surfacing materials are at the discretion of the client, however for specific advice please contact our sales office.

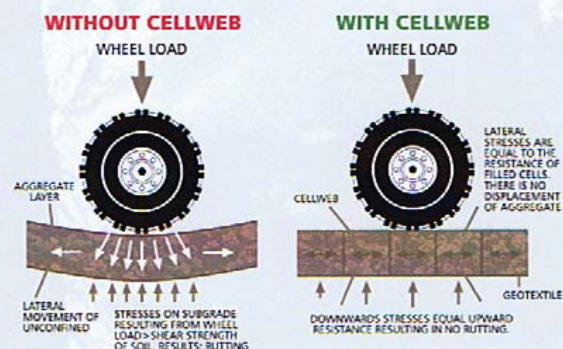
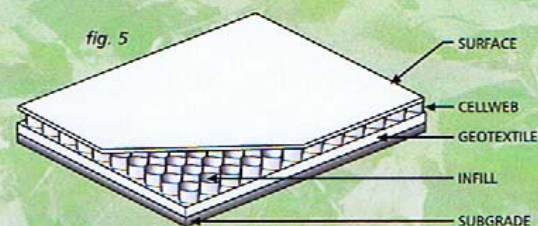


fig. 3

fig. 4

Benefits of using CellWeb

- Reduction in construction depth.
- Prevent compaction of sub-soils.
- Prevent oxygen/nutrient depletion.
- Environmentally friendly option.
- Fast and economic installation.
- Technical support available.



CellWeb is available in four cell depths; 75mm, 100mm, 150mm and 200mm.

The cell depth required is dependant upon specific site conditions. For specification details or project specific design assistance please contact our sales office.

Please contact:

Geosynthetics Limited
Fleming Road,
Harrowbrook Ind. Estate,
Hinckley, LE10 3DU.

Telephone: 01455 617139

Facsimile: 01455 617140 Email: sales@geosyn.co.uk

www.geosyn.co.uk

APPENDIX 5: BS 5837 (2012) – ASSESSMENT CATEGORIES

TREES FOR REMOVAL				
Category and definition	Criteria			Identification on plan
<u>Category U</u> Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve.</i>			RED
TREES TO BE CONSIDERED FOR RETENTION				
Category and definition	Criteria — Subcategories			Identification on plan
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
<u>Category A</u> Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	GREEN
<u>Category B</u> Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation)	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	BLUE
<u>Category C</u> Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	GREY

APPENDIX 6: QUALIFICATIONS AND EXPERIENCE OF BARRIE DRAPER

- 1 Qualifications:** I have a BSc degree (with Honours) in Arboriculture from the University of Central Lancashire. I also hold a BTEC Higher National Diploma (HND) in Forestry (Lowland Management), the Arboricultural Association's Technician's Certificate in Arboriculture (Tech Cert), the Royal Forestry Society's Certificate in Arboriculture (Cert Arb) and the National Examinations Board Certificate in Forestry.
- 2 Career experience:** I began my arboricultural career in 1993 as an arborist with Portsmouth City Council. During my time with the council I worked for both the direct labour organisation and for a private contractor where I obtained valuable hands on experience in all aspects of arboriculture. From 1999 to 2002 I was employed as Senior Arborist by Parchment Housing Group, a housing association based near Portsmouth. I managed the Groups' tree stock on their behalf, carrying out tree inspections and practical management operations. I have also worked in local government, spending time with Thurrock Borough Council in Essex where I was the Tree and Landscape Officer, and with Winchester City Council, where I was Arboricultural Officer for a period of 2 years. During my time working in local government I was responsible for making Tree Preservation Orders, administering applications to work on protected trees and advising on planning applications when trees were considered material constraints on development. Working within a planning environment allowed me to gain valuable experience in the management of trees in development situations and an understanding of the planning process and how it relates to trees. From January 2005 I worked for Barrell Tree Consultancy Ltd advising clients on a wide range of tree related issues. I left the company in September 2008 and set up ecourban Ltd, where I am currently the sole practitioner.



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