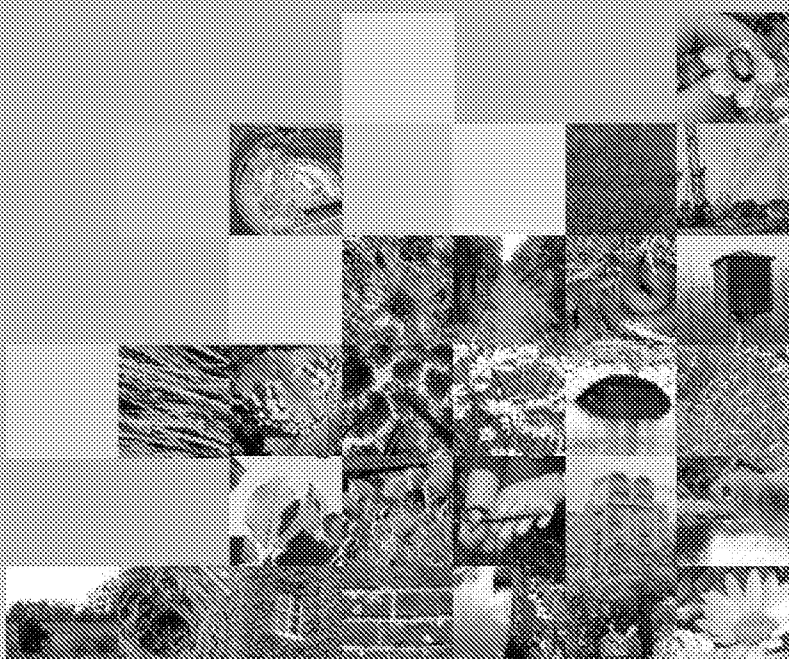




# Littlehampton Leisure Centre, Littlehampton

## Arboricultural Impact Assessment and Method Statement

Willmott Dixon Construction Ltd

|                   |                                           |                                   |             |             |
|-------------------|-------------------------------------------|-----------------------------------|-------------|-------------|
| <b>Job Number</b> | <b>5113.8</b>                             |                                   |             |             |
| <b>Author</b>     | James Potts BSc (Hons) MArborA            |                                   |             |             |
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| 4.0               | Mark Cannon BA<br>(Hons) DipLA<br>MArborA | Dr Sarah Cox CEcol CEnv<br>MCIEEM | 13/02/17    | Final       |

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# Executive Summary

The Ecology Consultancy was commissioned by Wilmott Dixon to perform an impact assessment on trees that could be affected by future works associated with the development of Littlehampton Leisure Centre, Littlehampton and to produce a tree protection scheme detailing protection methods for trees to be retained as well as providing mitigation options for trees to be removed.

The main findings of the survey were as follows:

- ✧ There were 213 individual trees and six groups of trees<sup>1</sup> in and adjacent to the proposed development site each described in Appendix 1 of this report.
- ✧ One tree was attributed Category A, 48 trees and four groups of trees were attributed Category B, 156 trees and two groups were attributed Category C and eight trees were attributed Category U status.
- ✧ The proposed development footprint will require the removal of 80 individual trees and two groups as listed in Table 2, of which one tree was Category A, 11 trees and two groups were assigned Category B status, 66 trees were assigned Category C and two trees were assigned Category U.
- ✧ It is recommended that a scheme of soft landscaping is submitted, including tree planting detail that addresses the potential loss of visual public amenity where tree removal is unavoidable.
- ✧ A scheme of tree protection measures has been drafted for implementation in the construction phase in order to minimise the impact of the development process on trees that are able to be retained.
- ✧ Any tree works should consider the potential presence of protected species, including breeding birds and roosting bats. The Preliminary Ecological Appraisal (The Ecology Consultancy, 2015) report should be read in conjunction with this report and any additional recommendations adopted.

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<sup>1</sup> The term "group" is intended to identify trees that form cohesive arboricultural features either aerodynamically (e.g. trees that provide companion shelter), visually (e.g. avenues or screens) or culturally, including for biodiversity (e.g. parkland or wood pasture).

# 1 Introduction

## BACKGROUND

- 1.1 The Ecology Consultancy was commissioned by Willmott Dixon Construction to carry out an Arboricultural Impact Assessment of trees in the grounds of Littlehampton Leisure Centre, Littlehampton. The report is required to provide sufficient information for the development of site layout plans and construction exclusion zones to enable the protection of existing trees.

## SCOPE OF THE REPORT

- 1.2 This report has been produced in accordance with BS5837:2012 '*Trees in Relation to Design, Demolition and Construction – Recommendations*' (henceforth referred to as BS5837:2012). It provides information on the current condition of trees affected by the scheme, focusing on arboricultural values (categories A1, B1, C1)<sup>2</sup> and landscape values (categories A2, B2, C2)<sup>3</sup> and the likely impact of the proposed development, and also includes an arboricultural method statement describing how trees will be protected and managed during the development.
- 1.3 The results of the tree survey are provided in Appendix 1: Schedule of Trees. Criteria for assessing the quality of trees and a glossary of terms and abbreviations are also provided in Appendix 1. A Tree Constraints Plan illustrating the BS5837:2012 categories of each tree, their crown spread and Root Protection Area (RPA) is presented in Appendix 2, a Tree Protection Plan is provided in Appendix 3 and photographs of the site are provided in Appendix 6.
- 1.4 The evaluation of the extent of the impact on existing trees includes a survey plan showing the relevant existing trees closest to the development as well as an evaluation of the impact of proposed trees losses; evaluation of trees constraints and any issues which should be addressed in the arboricultural method statement.

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<sup>2</sup> Categorisation grading in accordance with BS5837:2012. Trees suitable for retention: - Category A. Trees of high quality with an estimated remaining life expectancy of at least 40 years.  
Category B. Trees of moderate quality with an estimated life expectancy of at least 20 years.  
Category C. Trees of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm.  
Category U. Trees of very low quality normally with a life expectancy of less than 10 years or requiring immediate removal due to health and safety concerns.

<sup>3</sup> British Standard BS5837:2012 recommends that these categories may be further broken down into sub categories A1 A2 A3 pertaining to Arboricultural, Landscape or Cultural values respectively.

- 1.5 Any clear flaws or hazards relating to individual trees have been identified in Appendix 1 and preliminary recommendations for the management of existing trees are provided.

#### SITE CONTEXT AND STATUS

- 1.6 The site is located in West Sussex on the outskirts of Littlehampton and comprises the grounds of Littlehampton Leisure Centre. The site measured 3.15 ha , with its northern boundary formed by residential properties in Thames Close and Humber Close. Mewsbrook Park is situated to the east, with a pumping station and miniature golf course marking the western boundary, and Sea Road to the south. The OS National Grid reference for the centre of the site is TQ 04069 01488.

#### DESCRIPTION OF THE PROPOSALS

- 1.7 Proposals for the site, based on current plans displayed in Drawing Reference: *LLC logistics 2D Rev 3* (Willmott Dixon, 2017), provided by the client, are to demolish the existing buildings and to construct a new leisure centre to the north-west of the site. The proposed plan also includes remodelling of the car park in the centre of the site and provision of hard and soft landscaping. A 6m buffer zone formed of type 2 crushed concrete will surround the proposed new building and will connect to an access road leading from the west of the building to the existing car park.

## 2 Methodology

### TREE SURVEY

- 2.1 The tree survey was conducted in accordance with British Standard BS5837:2012, the results of which are presented in the Schedule of Trees (Appendix 1). The schedule includes: a reference number for each tree as used elsewhere in this report and on the tree constraints plan; species listed by common name; tree dimensions including overall height; canopy spreads measured against the cardinal compass points; and, crown height, age class, physiological condition and structural condition, life expectancy and RPAs.
- 2.2 Each tree has been assigned a category grade in accordance with BS5837:2012, with categories A, B, C and U<sup>3</sup> ranging from high to low quality respectively. A tree quality assessment definitions chart has been included in this report and is presented in Table 4 of Appendix 1.
- 2.3 Drawing Reference: *LLC logistics 2D Rev 3* (Willmott Dixon, 2017) was provided for the purposes of compiling this report, which includes a footprint overlay for potential development.
- 2.4 A tree constraints plan is presented in Appendix 2 showing the recommended RPAs for all surveyed trees, and highlighting each grading category using the colour key system as described in BS5837:2012.
- 2.5 For the purposes of this report, arboricultural as well as landscape sub-categories have been used in the Schedule of Trees. BS5837:2012 makes it clear that each sub-category should be given equal weighting when attributing each grade.
- 2.6 The site was visited on the 4 August 2016 and again on the 10 August 2016, weather conditions were generally dry and overcast. The trees were inspected at ground level and no decay detection equipment was used. Access to the majority of tree specimens was uninhibited. All trees likely to be impacted by the works in the red line boundary of the site were visually assessed using the Visual Tree Assessment (VTA).
- 2.7 Stem diameters were measured using logging tape and height measurements were taken using a laser clinometer. All other tree dimensions were estimated unless specifically indicated otherwise.
- 2.8 No soil samples or soil analysis were undertaken.

## PERSONNEL

- 2.9 The tree survey was carried out by Mark Cannon BA (Hons) Dip. LA, Tech Cert (ArborA) MArborA, an arboriculturalist and landscape architect with over 20 years' experience in the arboricultural and built environment sectors. Mark has experience in providing professional expert arboricultural advice and recommendations in relation to trees and development. Mark is a professional member of the Arboricultural Association as well as gaining a BA (Hons) Degree and Post Graduate Diploma in Landscape Architecture at the University of Greenwich.

## LIMITATIONS

- 2.10 Only preliminary recommendations for tree management are provided. A full hazard risk assessment comprising a more comprehensive analysis of tree condition and potential risk to target areas is beyond the scope of this report.
- 2.11 One or more trees surveyed were common ivy *Hedera helix* clad, inhibiting standard VTA inspection methods and stem measurements. As such, assumptions have been made relating to the condition and size of these trees. Management recommendations for ivy clad trees have been made in this report and should be followed to remove any risk that may be posed by them.
- 2.12 One or more trees were situated in areas where access to the main stem was not possible. As such, assumptions have been made relating to their stem condition and dimensions.

# 3 Results

## TREE SURVEY

- 3.1 The majority of trees likely to be affected by any development within the red line boundary of the site were located within the wooded area to the north-west of the existing leisure centre. Several scattered patches of trees to the west of the existing leisure centre are also predicted to be directly or indirectly affected.
- 3.2 A tree constraints check was undertaken with Arun District Council and it was confirmed that no trees as described in Appendix 1 were subject to Tree Preservation Order or Conservation Area status.
- 3.3 The survey recorded 213 individual trees and six groups which could potentially be affected by future development comprising, black mulberry *Morus nigra*, black poplar *P. nigra*, blackthorn *Prunus spinosa*, common alder *Alnus glutinosa*, common ash *Fraxinus excelsior*, common hawthorn *Crataegus monogyna*, common whitebeam *Sorbus aria*, black pine *Pinus nigra*, European pear *Pyrus communis*, field maple *Acer campestre*, goat willow *Salix caprea*, holm oak *Quercus ilex*, Italian alder *Alnus cordata*, Monterey cypress *Cupressus macrocarpa*, Norway maple *Acer platanoides*, pendunculate oak *Quercus robur*, Monterey pine *Pinus radiata*, silver birch *Betula pendula*, sycamore *Acer pseudoplatanus*, white poplar *Populus alba* weeping willow *Salix babylonica*, white willow.
- 3.4 The physiological and structural condition<sup>4</sup> of the majority of surveyed trees was consistent with Category C (156 trees and two groups). One tree was attributed Category A, 48 trees and four groups were attributed Category B and eight trees were attributed Category U.
- 3.5 A summary of the number of trees surveyed corresponding to BS5837:2012 tree quality assessment definitions is provided below in Table 1<sup>2</sup>.

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<sup>4</sup> Physiological and structural condition are terms used to differentiate between a trees physiological condition i.e. annual growth, vigour, presence of disease etc. as opposed to structural condition relating to branch formation, mechanical strength and integrity.

**Table 1: Grade Classifications**

| BS 5837:2012<br>Grades A to U | Trees attributed to each grade                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Frequency<br>Individual Or<br>Group |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| A                             | 186                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1/0                                 |
| B                             | 9, 30, 32, 35, 37, 40, 42, 50, 59, 65, 75, 79, 92, 94, 95, 96, 97, 100, 101, 108, 109, 120, 122, 126, 128, 130, 132, 133, 138, 139, 140, 142, 143, 144, 155, 167, 168, 174, 175, 183, 191, 193, 197, 198, 201, 208, 209, 211, G2, G3, G4, G5                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 48/4                                |
| C                             | 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29, 31, 33, 34, 36, 38, 39, 41, 43, 45, 46, 47, 48, 49, 51, 52, 53, 54, 55, 57, 58, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70, 71, 73, 74, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 91, 93, 98, 99, 102, 103, 104, 105, 106, 107, 111, 112, 114, 116, 117, 118, 119, 121, 123, 124, 125, 125a, 127, 129, 131, 134, 135, 136, 137, 141, 145, 146, 148, 149, 150, 151, 152, 153, 154, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 165a, 171, 172, 173, 176, 178, 179, 181, 182, 184, 185, 187, 188, 189, 190, 192, 194, 195, 196, 199, 200, 203, 204, 205, 206, 207, 210, 212, 213, 214, 215, 216, G1, G6 | 156/2                               |
| U                             | 28, 56, 72, 110, 115, 147, 169, 177                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 8/0                                 |

3.6 Information on the condition and value of the survey trees is provided in Appendix 1.

#### ARBORICULTURAL IMPACT ASSESSMENT

3.7 Based on the construction logistics plan (LLC logistics 2D Rev3; Willmott Dixon, 2017) the impact of the proposal on the existing trees has been assessed and all trees that will potentially be affected by the development are listed below in Table 2. Tree numbers used in Table 2 correspond to the Tree Constraints Plan displayed in Appendix 2.

**Table 2: Summary of trees to be affected by the development**

| Impact                     | Reason                                | BS Cat A | BS Cat B                                                      | BS Cat C                                                                                                           | BS Cat U |
|----------------------------|---------------------------------------|----------|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|----------|
| <b>Trees to be removed</b> | Located within development footprint. | 186      | 155, 167, 168, 174, 175, 183, 191, 193, 201, 208, 209, G1, G3 | 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 147, 148, 149, 150, 151, 152, 153, 154, 156, 157, 158, 159, | 169, 177 |

**Table 2: Summary of trees to be affected by the development**

| Impact | Reason | BS Cat A | BS Cat B | BS Cat C                                                                                                                                                                                                                                                          | BS Cat U |
|--------|--------|----------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
|        |        |          |          | 160, 161,<br>162, 163,<br>164, 165,<br>165a, 166,<br>170, 171,<br>172, 173,<br>176, 178,<br>179, 180,<br>181, 182,<br>184, 185,<br>187, 188,<br>189, 190,<br>192, 193,<br>194, 195,<br>196, 199,<br>200, 202,<br>203, 204,<br>204a, 205,<br>206, 207,<br>210, 211 |          |

#### Tree removal and pruning

3.8 The footprint of the proposed building and 6m construction traffic buffer zone displayed on *LLC logistics 2D Rev3* (Willmott Dixon, 2017) will require the removal of 80 individual trees and two groups as listed in Table 2 in order to facilitate construction. This includes One tree assigned Category A status, 11 trees assigned Category B, 66 trees assigned Category C and two trees assigned Category U.

3.9 In order to facilitate access during construction, approximately half the trees in group G1 (Category B) and group G3 (Category B) will also require removal.

#### Incursions into RPA of trees effected by the development proposal.

3.10 The proposed development will not encroach into the RPA of any trees to be retained.

#### Impact on visual amenity and local character

3.11 The majority of trees to be removed are considered unsuitable for retention, either due to their poor overall quality, negligible visual public amenity or low landscape value and as such are attributed Category C (66 trees) or Category U (two trees). The majority of these trees are small to medium size, and are set back in the woodland away from public access and view. As such, their removal would not represent a significant loss to visual amenity.

- 3.12 The remaining trees to be removed are of significantly higher quality than the surrounding category C and U trees. These are generally in locations which are more easily viewed by the public or are large enough to be seen easily from long distance. 11 trees T155, T167, T168, T174, T175, T183, T191, T193, T201, T208 and T209 have been designated category B status due to their moderate quality, local visual amenity or landscape value. One tree, T186 has been awarded category A status due to its large size and therefore, high overall landscape value. The removal of these trees would represent a significant loss to visual public amenity.
- 3.13 The two groups effected by the proposed development i.e. G1 and G3 have also been attributed Category B status due to the combined contribution to the local landscape. The required removal of half of the trees in G1 and approximately the same in G3 to accommodate the proposed development will represent a significant loss in the areas local visual amenity.

## 4 Recommendations

### TREE WORKS

- 4.1 All tree works should be carefully planned and undertaken in accordance with BS3998: 2010 '*Recommendation for Tree Works*'.
- 4.2 All tree works should give due consideration to the potential presence of protected species, including breeding birds and roosting bats. The Preliminary Ecology Appraisal PEA (The Ecology Consultancy, 2016) and any other subsequent ecological reports should be read in conjunction with this report and any additional recommendations adopted.
- 4.3 Arisings from tree works (e.g. wood piles and standing dead trunks) can provide valuable habitats for wildlife. As such, consideration should be given to their retention on site in areas unlikely to cause issues to public health and safety.

### TREE PROTECTION

- 4.4 In order to minimise disturbance in the RPAs of retained trees, excavation into the soil or soil regrading should not be a requirement of finalised construction layouts, existing levels should remain intact and should be protected from overloading to prevent soil compaction.
- 4.5 Protective fencing should be installed accordance with figure 2 of BS 5837:2012 to enable the safe retention of trees to be retained. The positioning of tree protection and the establishment of construction exclusion zones (CEZ) should initially be based upon the root protection areas as described in Appendix 1, and should be in place prior to the commencement of works.
- 4.6 All works should be undertaken from outside the RPA wherever possible. Where working in an RPA is unavoidable, ground protective measures fully compliant with section 6.2 of BS 5837: 2012 and agreed by the consulting arboriculturalist should be used.

### MITIGATION

- 4.7 It is recommended that a scheme of soft landscaping is submitted, including tree planting details which address the potential loss of visual public amenity where tree

removal is unavoidable. The tree selection should be appropriate to the site and chosen from a species palette in accordance with local tree planting policies and in accordance with any recommendations provided in the PEA and any subsequent ecology reports.

- 4.8 The planting detail should be considered and planned at an early stage of the design process and feed into the wider landscape design proposal. Ideally, species selected should be native and/or of proven ecological value.
- 4.9 Often the need for future remedial pruning or tree removal can be avoided through careful species selection and planning during the design of the mitigation planting scheme.
- 4.10 The location of mitigation planting in relation to new or existing buildings should take full account of the final canopy height and spread for all trees included in the planting scheme. Buildings should ideally be located a sufficient distance from the predicted canopy line and RPA to avoid future pressure to undertake remedial pruning or tree removal.

## 5 Arboricultural Method Statement

- 5.1 This arboricultural method statement details how existing trees to be retained will be protected during the site development. The advice is specific to this site and should be read in conjunction with the Tree Protection Plan in Appendix 3.

### SITE MONITORING AND SUPERVISION

- 5.2 An arboricultural consultant or competent person will be appointed to advise on tree protection for the site.

### SUGGESTED SEQUENCING OF SITE MANAGEMENT

- 5.3 It is recommended that the following arboricultural input regarding on site management of trees provided in Table 3 is required, which will form the basis of the auditable schedule of inspection.

Table 3: Sequencing of site management and input.

| Activity                                                                                                          | Level of arboricultural input                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pre-commencement site meeting with site manager and the Local Planning Authority Tree Officer.                    | Initial site meeting.<br>Review of tree protection measures.<br>Agree frequency of site supervision and reporting.<br>Agree any amendments to tree protection measures.                                   |
| Preliminary tree works.                                                                                           | Discuss and review works schedule with contractor.                                                                                                                                                        |
| Erection of protective barriers and ground protection measures.                                                   | Preparation of amended plans and specifications for formal agreement with the Local Planning Authority Tree Officer.<br><br>On-going discussion and advice during installation until completion of works. |
| Removal of existing buildings and hardstanding.                                                                   | Pre-works on site briefing with contractor and direct on site supervision by arboricultural consultant.                                                                                                   |
| Commencement of ground works including excavations for foundations installation of services and new hardstanding. | Pre-works on site briefing with contractor and direct on site supervision by arboricultural consultant.                                                                                                   |
| Removal of protective fencing and ground protection measures after                                                | Pre-commencement on site briefing with contractor and ongoing site supervision at agreed intervals until completion.                                                                                      |

**Table 3: Sequencing of site management and input.**

| Activity                                                                | Level of arboricultural input                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| completion of construction works.                                       |                                                                                                                                                                                                                                                         |
| Carrying out of mitigation tree planting and soft and hard landscaping. | <p>Pre-commencement on site briefing with landscape contractor check and agree planting specification.</p> <p>Site meeting with contractor following completion of works to check compliance with agreed specifications, maintenance and aftercare.</p> |

#### GENERAL PRECAUTIONS TO BE TAKEN ON SITE

5.4 The following precautions should be maintained at all times:

- ✧ All retained trees shall be protected by the erection of protective barriers and or ground protection prior to the commencement of any works and shall remain in place during the entire course of the development.
- ✧ No fires shall be lit within 10m of the canopies of trees to be retained.
- ✧ Designated Construction Exclusion Zones (CEZ) will be suitably identified and maintained to ensure that trees remain protected. Storage or stockpiling areas are to be located within designated sites away from retained trees and all care must be taken to prevent the leakage or spilling of harmful materials into the soil.
- ✧ No excavations or soil stripping or general disturbance and compaction of the existing soil strata shall be carried out within the RPA of any tree to be retained.
- ✧ All scheduled tree works shall be carried out prior to the commencement of any site works and before the erection of tree protection measures.
- ✧ A copy of the method statement and accompanying tree protection plan shall be made available and retained on site at all times and shall be included in the site induction for all contractors and personnel so that they are familiar with its content and requirements.

#### PRE-COMMENCEMENT SITE MEETING

5.5 Prior to any site works being undertaken, a pre-commencement meeting on site between the Site Manager, Arboricultural Consultant and Local Planning Authority Tree Officer shall be carried out in order to understand and agree key stages for the

implementation of tree protection measures and operations and to allow any aspect of the process to be discussed.

#### **PRELIMINARY TREE WORKS**

- 5.6 All tree works including remedial works and those works recommended in the tree survey shall be carried out in accordance with BS3998:2010 and shall be undertaken prior to the commencement of any works. It shall be the responsibility of the site owners and tree contractor to ensure that no tree works are carried out without the necessary prior written consents from the Local Planning Authority.

#### **ERECTION OF PROTECTIVE BARRIERS AND GROUND PROTECTION MEASURES**

- 5.7 The Tree Protection Plan shows the approximate boundary of CEZs in Appendix 3. A protective barrier shall be erected along the line of the CEZs prior to the commencement of works and shall remain in place through the entire course of the development and only moved with the prior written consent of the Local Planning Authority Tree Officer, in consultation with the appointed arboricultural consultant. The barrier will be a 2m high fence robust enough to withstand impact from plant machinery supported by a system of vertical and horizontal scaffold tubes and supporting back stays as specified in Figure 2 of BS5837:2012.
- 5.8 Weather proof signage shall be attached to the barrier in locations clearly seen by contractors and site operatives indicating that the CEZ area is protected and should not be accessed. Examples of warning notices are provided in Appendix 5.
- 5.9 Once the barriers have been placed into position, they are not to be removed or altered in any way until the conclusion of all site construction works.
- 5.10 In areas where CEZs will experience heavy traffic or activity, protective fencing employed shall be as specified in Figure 1 of Appendix 4. In areas experiencing light traffic with little or no works activity, it may be appropriate to employ fencing as specified in Figure 2 of Appendix 4. This must be agreed upon by a consulting arborist and/or the Local Planning Authority Tree Officer.

#### **REMOVAL OF EXISTING BUILDINGS AND HARDSTANDING**

- 5.11 Prior to the removal of any existing buildings and/or hardstanding, an on-site briefing between the Site Manager, the Arboricultural Consultant and the Local Planning

Authority Tree Officer will be carried out in order to understand appropriate methods of demolition of hardstanding and buildings in the vicinity of RPAs.

- 5.12 During the demolition process, all works carried out in the vicinity of RPA will be supervised by an arboricultural consultant.
- 5.13 All works shall be undertaken from outside the RPA wherever possible. Where working within an RPA is unavoidable, ground protection measures fully compliant with section 6.2 of BS5837:2012 and agreed by a consulting arboriculturalist shall be used.
- 5.14 All excavation work shall be carried out so as to draw the removed materials away from the tree and out of the RPA where they can be moved and loaded so as not to present a risk to any part of the trees to be retained.
- 5.15 Where possible, any hard surface close to trees should be left and re-used as a base for any new surfacing which may be located in the same position. Where the removal of hard surfacing in the RPA is a necessity, works should be carried out using only hand held machinery, in such a way as to minimise any disturbance on the underlying soil or roots.
- 5.16 Any roots exposed through excavation activities should immediately be covered with good quality topsoil, and/or prevented from drying by wrapping in hessian sheeting or similar. Any damaged roots should be cut cleanly by secateurs or handsaw.
- 5.17 Operational arcs of excavators should be kept clear of crowns or stems of retained trees to help prevent accidental damage.

#### COMMENCEMENT OF GROUND WORKS INCLUDING EXCAVATIONS FOR FOUNDATIONS, INSTALLATION OF SERVICES AND NEW HARDSTANDING

- 5.18 Prior to the commencement of any ground works, an onsite briefing between the Site Manager, Arboricultural Consultant and Local Planning Authority Tree Officer will be carried out in order to understand appropriate methods of excavation within the vicinity of RPAs and to explain best practice procedures should any roots be disturbed by excavation activities. During the excavation process, all works likely to impact trees will be supervised by the consulting arboriculturalist.

- 5.19 The first 750mm of excavation within RPAs of retained trees will be carried out using hand tools or compressed air spades and is to be undertaken under the supervision of the consulting arboriculturalist.
- 5.20 Any damaged roots of a diameter of 25mm and greater should be cleanly severed using secateurs or hand saw. Cut ends and exposed roots (woody and fibrous) should be initially covered over using hessian sheeting pegged in and kept damp and prevented from drying out. A geotextile permeable terram may be used on the tree side of any trenching to protect soil/root environment from desiccation or contamination.

#### REMOVAL OF PROTECTIVE FENCING AND GROUND PROTECTION MEASURES AFTER COMPLETION OF CONSTRUCTION WORKS

- 5.21 Prior to the removal of any protective fencing or ground protection, an onsite briefing between the Site Manager, Arboricultural Consultant and Local Planning Authority Tree Officer will be carried out in order to understand appropriate methods of removal. During the removal process, the site will be subjected to ongoing visits at regular intervals by a consulting arboriculturalist until the conclusion of the works.
- 5.22 Trees showing evidence of decline as a possible result of soil compaction following the removal of ground protection and protective fencing will be included in a schedule of de-compaction in the RPA using a compressed air injection treatment system.

#### CARRYING OUT OF MITIGATION TREE PLANTING AND SOFT AND HARD LANDSCAPING

- 5.23 Prior to the commencement of any mitigation planting or landscaping, an onsite briefing between the Landscaping Contractor, Arboricultural Consultant and Local Planning Authority Tree Officer will be carried out in order to understand and agree on planting specifications. Upon the completion of planting and landscaping works, a meeting will be held between the Landscaping Contractor, Arboricultural Consultant and Local Planning Authority Tree Officer in order to ensure works were carried out in compliance with agreed specifications and to agree appropriate aftercare and maintenance levels.
- 5.24 All landscaping will avoid soil re-grading and disturbance within the RPAs of all retained trees. Unavoidable raising of levels inside RPA's should be achieved only through the use of gas and water permeable granular material.

5.25 Any new surface constructed within the RPA shall be permeable and will not impede gaseous and aqueous exchange between the soil and atmosphere.

5.26 All tree planting undertaken should be in accordance with BS8545:2014 '*Trees: from nursery to independence in the landscape – Recommendations*'.

#### SITE SPECIFIC RECOMMENDATIONS

The partial removal of G1 and G3 will be necessary to allow for the construction of the building and the 6m construction buffer. Protective fencing shall then be erected along the boundary line as described in the Tree Protection Plan in Appendix 3 to protect the remainder of the groups.

5.27 Protective fencing in accordance with Figure 2 of BS5837:2012 for high impact areas shall be erected around the edge of the 6m buffer zone as described in Appendix 3, to prevent further incursion into the RPAs of trees surrounding the proposed building footprint.

5.28 All other trees shown to be retained shall be protected during the course of the development using BS5837:2012 (Figure 2) specification fencing, to be erected as described in the Tree Protection Plan in Appendix 3.

#### CONTACT DETAILS

5.29 This method statement is accompanied by a list of known contact details for all relevant parties and is included in Table 5.

Table 5: List of contact details for all relevant parties

| Contact                   | Name           | Company or Local Authority name | Contact Number | Report Issued Yes/No |
|---------------------------|----------------|---------------------------------|----------------|----------------------|
| Client                    | Millie Demol   | Willmott Dixon Construction     | 01932 596701   | Yes                  |
| LPA Tree Officer          | Richard Martin | Arun District Council           | 01903737949    | No                   |
| Arboricultural Consultant | Mark Cannon    | The Ecology Consultancy         | 020 7378 1914  | Yes                  |

# References

British Standard Institute (BSI) (2014) *BS8545:2014 Trees: from nursery to independence in the landscape- Recommendations*. BSI, London.

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Geosynthetics (2016) *Case Study – Cellweb TRP – Keats Way*.

The Ecology Consultancy (2016) *5113 Willmott Dixon Littlehampton Leisure Centre PEA Report V1*, The Ecology Consultancy, London.

Town and Country Planning Act 1990 (as amended).

Town and Country Planning (Tree Preservation) (England) Regulations 2012.

Willmott Dixon (2016) *LLC logistics 2D Rev1*

## Appendix 1: Schedule of Trees

## Appendix 1: Schedule of Trees

| Tree No. | Species          | Ht. | S | SL 1.5 | N  | S | E | W | Cr. Cl. | Ls | SC   | PG   | Comments/ Observation                        | Preliminary Management Advice | LE    | Can | RPA m² | RPA / |
|----------|------------------|-----|---|--------|----|---|---|---|---------|----|------|------|----------------------------------------------|-------------------------------|-------|-----|--------|-------|
| T1       | Monterey Cypress | 9.5 | 3 | 955    | 10 | 7 | 7 | 6 | 10      | M  | Fair | Poor | No access canopy showing areas of decline    | No immediate works required.  | 10-20 | C   | 412.6  | 11.5  |
| T2       | White poplar     | 6.4 | 1 | 286    | 3  | 5 | 8 | 1 | 3       | EM | Fair | Good | White poplar suppressed by pine on west side | No immediate works required.  | 40+   | C   | 37.0   | 3.4   |
| T3       | Monterey Pine    | 6   | 1 | 509    | 2  | 4 | 3 | 7 | 2       | M  | Poor | Fair | -                                            | No immediate works required.  | 20-40 | C   | 117.2  | 6.1   |
| T4       | White poplar     | 6   | 2 | 0      | 4  | 4 | 4 | 4 | 4       | EM | Fair | Fair | Canker limb west side                        | No immediate works required.  | 40+   | C   | 45.4   | 3.8   |
| T5       | Sycamore         | 6   | 2 | 223    | 3  | 4 | 3 | 3 | 3       | EM | Fair | Fair | -                                            | No immediate works required.  | 40+   | C   | 28.3   | 3.0   |
| T6       | White poplar     | 6   | 3 | 223    | 6  | 6 | 6 | 6 | 6       | EM | Fair | Fair | -                                            | No immediate works required.  | 40+   | C   | 66.5   | 4.6   |
| T7       | White poplar     | 5   | 1 | 223    | 3  | 3 | 3 | 3 | 3       | EM | Fair | Good | No access                                    | No immediate works required.  | 40+   | C   | 22.5   | 2.7   |
| T8       | White poplar     | 5   | 1 | 223    | 3  | 3 | 3 | 3 | 3       | EM | Fair | Good | No access                                    | No immediate works required.  | 40+   | C   | 22.5   | 2.7   |

## Appendix 1: Schedule of Trees

| Tree No. | Species       | Ht. | S | SL 1.5 | N | S | E | W | Cr. Cl. | Ls | SC   | PG   | Comments/ Observation                    | Preliminary Management Advice | LE    | Can | RPA m² | RPA / |
|----------|---------------|-----|---|--------|---|---|---|---|---------|----|------|------|------------------------------------------|-------------------------------|-------|-----|--------|-------|
| T9       | Black pine    | 9   | 1 | 286    | 3 | 3 | 3 | 3 | 3       | EM | Good | Good | -                                        | No immediate works required.  | 40+   | B   | 37.0   | 3.4   |
| T10      | Black pine    | 7.4 | 1 | 318    | 3 | 3 | 3 | 3 | 3       | EM | Good | Good | -                                        | No immediate works required.  | 40+   | C   | 45.7   | 3.8   |
| T11      | Black pine    | 7   | 1 | 223    | 3 | 3 | 3 | 3 | 3       | EM | Good | Good | -                                        | No immediate works required.  | 40+   | C   | 22.5   | 2.7   |
| T12      | Black pine    | 5.5 | 1 | 255    | 3 | 3 | 3 | 3 | 3       | EM | Good | Good | -                                        | No immediate works required.  | 40+   | C   | 29.4   | 3.1   |
| T13      | Black pine    | 7.8 | 1 | 255    | 3 | 3 | 3 | 3 | 3       | EM | Good | Good | -                                        | No immediate works required.  | 40+   | C   | 29.4   | 3.1   |
| T14      | Black pine    | 6.5 | 1 | 286    | 3 | 3 | 3 | 3 | 3       | EM | Good | Good | -                                        | No immediate works required.  | 40+   | C   | 37.0   | 3.4   |
| T15      | Italian alder | 8.4 | 1 | 159    | 7 | 3 | 4 | 1 | 7       | M  | Fair | Fair | Lean towards building unbalanced canopy. | No immediate works required.  | 10-20 | C   | 11.4   | 1.9   |
| T16      | Black pine    | 11  | 1 | 255    | 4 | 4 | 7 | 4 | 4       | EM | Fair | Poor | Sparse canopy low vigour.                | No immediate works required.  | 10-20 | C   | 29.4   | 3.1   |

## Appendix 1: Schedule of Trees

| Tree No. | Species    | Ht. | S | SL 1.5 | N | S | E | W | Cr. Cl. | Ls | SC   | PG   | Comments/ Observation                                 | Preliminary Management Advice        | LE    | Cat | RPA m² | RPA / |
|----------|------------|-----|---|--------|---|---|---|---|---------|----|------|------|-------------------------------------------------------|--------------------------------------|-------|-----|--------|-------|
| T17      | Black pine | 9   | 1 | 286    | 3 | 3 | 3 | 3 | 3       | EM | Fair | Fair | Sparse on west side and lean to building.             | No immediate works required.         | 0-10  | C   | 37.0   | 3.4   |
| T18      | Black pine | 9   | 1 | 318    | 4 | 3 | 4 | 3 | 4       | EM | Fair | Fair | Sparse on west side lean to building.                 | No immediate works required.         | 0-10  | C   | 45.7   | 3.8   |
| T19      | Black pine | 9   | 1 | 318    | 4 | 4 | 4 | 4 | 4       | EM | Fair | Fair | Lean to building sparse on west side.                 | Consider reducing away from building | 10-20 | C   | 45.7   | 3.8   |
| T20      | Black pine | 9   | 1 | 318    | 2 | 3 | 3 | 3 | 2       | EM | Good | Good | -                                                     | No immediate works required.         | 40+   | C   | 45.7   | 3.8   |
| T21      | Black pine | 8   | 1 | 159    | 3 | 3 | 3 | 3 | 3       | SM | Fair | Fair | -                                                     | No immediate works required.         | 40+   | C   | 11.4   | 1.9   |
| T22      | Sycamore   | 5.5 | 7 | 0      | 5 | 1 | 5 | 1 | 5       | EM | Poor | Poor | Multi stem inclusion at base, defoliation throughout. | Detailed inspection.                 | 20-40 | C   | 539.1  | 13.1  |
| T23      | Holm oak   | 5   | 2 | 0      | 3 | 3 | 4 | 3 | 3       | M  | Fair | Good | No access to main stem.                               | No immediate works required.         | 40+   | C   | 45.4   | 3.8   |
| T24      | Black pine | 7.5 | 1 | 223    | 2 | 2 | 2 | 2 | 2       | EM | Good | Fair | Lower canopy suppressed                               | No immediate works required.         | 40+   | C   | 22.5   | 2.7   |

## Appendix 1: Schedule of Trees

| Tree No. | Species    | Ht. | S | SL<br>1.5 | N   | S   | E   | W   | Cr.<br>Cl. | Ls | SC   | PG   | Comments/<br>Observation                                                          | Preliminary<br>Management<br>Advice        | LE    | Cal | RPA<br>m² | RPA<br>% |
|----------|------------|-----|---|-----------|-----|-----|-----|-----|------------|----|------|------|-----------------------------------------------------------------------------------|--------------------------------------------|-------|-----|-----------|----------|
| T25      | Black pine | 7.5 | 1 | 286       | 2   | 2   | 2   | 2   | 2          | EM | Good | Good | Lower canopy suppressed.                                                          | No immediate works required.               | 40+   | C   | 37.0      | 3.4      |
| T26      | Holm oak   | 6.6 | 5 | 0         | 4   | 4   | 4   | 4   | 4          | M  | Fair | Good | -                                                                                 | No immediate works required.               | 40+   | C   | 84.9      | 5.2      |
| T27      | Black pine | 9   | 1 | 191       | 2   | 2   | 5   | 2   | 2          | SM | Fair | Fair | -                                                                                 | No immediate works required.               | 40+   | C   | 16.5      | 2.3      |
| T28      | Black pine | 9   | 1 | 95        | 0.5 | 0.5 | 0.5 | 0.5 | 0.5        | Y  | Poor | Poor | Suppressed.                                                                       | Remove                                     | 0-10  | U   | 4.1       | 1.1      |
| T29      | Holm oak   | 6   | 2 | 0         | 2   | 2   | 2   | 2   | 2          | EM | Fair | Fair | Suppressed.                                                                       | No immediate works required.               | 20-40 | C   | 18.1      | 2.4      |
| T30      | Black pine | 9   | 1 | 286       | 2   | 2   | 3   | 3   | 2          | EM | Fair | Good | -                                                                                 | No immediate works required.               | 40+   | B   | 37.0      | 3.4      |
| T31      | Black pine | 9   | 1 | 223       | 2   | 2   | 2   | 4   | 2          | EM | Fair | Poor | Suppressed, only top canopy has needles.                                          | No immediate works required.               | 0-10  | C   | 22.5      | 2.7      |
| T32      | Holm oak   | 9   | 1 | 318       | 3   | 3   | 3   | 3   | 3          | M  | Good | Good | First lateral limb is weak with small occluded cavity and inclusion, remove limb. | Detailed inspection: Remove infected limb. | 40+   | B   | 45.7      | 3.8      |

## Appendix 1: Schedule of Trees

| Tree No. | Species          | Ht. | S | SL 1.5 | N | S | E | W | Cr. Cl. | Ls | SC   | PG   | Comments/ Observation                               | Preliminary Management Advice | LE    | Cal | RPA m² | RPA / |
|----------|------------------|-----|---|--------|---|---|---|---|---------|----|------|------|-----------------------------------------------------|-------------------------------|-------|-----|--------|-------|
| T33      | Holm oak         | 0   | 2 | 286    | 5 | 5 | 5 | 5 | 5       | M  | Fair | Good | North limb cavity semi occluded fork has inclusion. | Detailed inspection           | 40+   | C   | 74.0   | 4.9   |
| T34      | Black pine       | 9   | 1 | 223    | 3 | 1 | 1 | 3 | 3       | EM | Fair | Good | No canopy on east side suppressed.                  | No immediate works required.  | 40+   | C   | 22.5   | 2.7   |
| T35      | Black mulberry   | 6   | 1 | 700    | 5 | 5 | 5 | 5 | 5       | M  | Fair | Good | -                                                   | No immediate works required.  | 20-40 | B   | 221.7  | 8.4   |
| T36      | Weeping willow   | 5   | 1 | 318    | 2 | 2 | 2 | 2 | 2       | EM | Poor | Fair | Cut down to 4m cavity on north side.                | No immediate works required.  | 0-10  | C   | 45.7   | 3.8   |
| T37      | Holm oak         | 7   | 1 | 382    | 5 | 4 | 5 | 5 | 5       | M  | Fair | Good | Major lower limb removal south and west side.       | No immediate works required.  | 40+   | B   | 66.0   | 4.6   |
| T38      | Common whitebeam | 5   | 2 | 0      | 3 | 3 | 3 | 3 | 3       | EM | Poor | Good | Pollard with 1 year regrowth.                       | No immediate works required.  | 10-20 | C   | 15.2   | 2.2   |
| T39      | Common whitebeam | 5   | 1 | 95     | 3 | 3 | 3 | 3 | 3       |    | Poor | Fair | Pollard.                                            | No immediate works required.  | 10-20 | C   | 4.1    | 1.1   |
| T40      | Common whitebeam | 6.2 | 1 | 0      | 4 | 7 | 4 | 4 | 4       | EM | Good | Good | -                                                   | No immediate works required.  | 40+   | B   | 15.2   | 2.2   |

## Appendix 1: Schedule of Trees

| Tree No. | Species         | Ht.  | S | SL<br>1.5 | N | S | E | W | Cr.<br>Cl. | Ls | SC   | PG   | Comments/<br>Observation                                | Preliminary<br>Management<br>Advice | LE    | Cal | RPA<br>m² | RPA<br>% |
|----------|-----------------|------|---|-----------|---|---|---|---|------------|----|------|------|---------------------------------------------------------|-------------------------------------|-------|-----|-----------|----------|
| T41      | Black pine      | 10.5 | 1 | 191       | 2 | 1 | 2 | 2 | 2          | EM | Fair | Good | Suppressed.                                             | No immediate works required.        | 40+   | C   | 16.5      | 2.3      |
| T42      | Black pine      | 10   | 1 | 318       | 4 | 4 | 4 | 4 | 4          | M  | Good | Good | -                                                       | No immediate works required.        | 40+   | B   | 45.7      | 3.8      |
| T43      | Holm oak        | 7    | 3 | 0         | 4 | 3 | 3 | 3 | 4          | M  | Poor | Fair | Pollard at 3m.                                          | No immediate works required.        | 10-20 | C   | 81.7      | 5.1      |
| T45      | European pear   | 7    | 2 | 0         | 4 | 4 | 4 | 4 | 4          | M  | Fair | Fair | -                                                       | No immediate works required.        | 10-20 | C   | 47.8      | 3.9      |
| T46      | Sycamore        | 10   | 1 | 318       | 6 | 6 | 6 | 6 | 6          | M  | Good | Fair | Moderate deadwood in canopy.                            | Remove deadwood.                    | 40+   | C   | 45.7      | 3.8      |
| T47      | Sycamore        | 10   | 1 | 318       | 4 | 4 | 6 | 4 | 4          | M  | Fair | Good | Ivy clad throughout, inspection restricted              | Sever ivy and re-inspect.           | 40+   | C   | 45.7      | 3.8      |
| T48      | Sycamore        | 9    | 1 | 318       | 5 | 1 | 4 | 4 | 5          | M  | Poor | Poor | Dense ivy restricted inspection, suppressed tree growth | Sever ivy and re-inspect.           | 0-10  | C   | 45.7      | 3.8      |
| T49      | Common hawthorn | 4    | 2 | 0         | 2 | 2 | 2 | 2 | 2          | Y  | Fair | Good | -                                                       | No immediate works required.        | 40+   | C   | 9.1       | 1.7      |
| T50      | Pedunculate oak | 0    | 1 | 318       | 6 | 6 | 6 | 6 | 6          | M  | Good | Good | Tree at meeting with timber and metal security fence.   | No immediate                        | 40+   | B   | 45.7      | 3.8      |

## Appendix 1: Schedule of Trees

| Tree No. | Species         | Ht. | S | SL<br>1.5 | N   | S   | E   | W   | Cr.<br>Cl. | Ls | SC   | PG   | Comments/<br>Observation | Preliminary<br>Management<br>Advice | LE    | Can | RPA<br>m² | RPA<br>% |
|----------|-----------------|-----|---|-----------|-----|-----|-----|-----|------------|----|------|------|--------------------------|-------------------------------------|-------|-----|-----------|----------|
|          |                 |     |   |           |     |     |     |     |            |    |      |      |                          | works required.                     |       |     |           |          |
| T51      | Blackthorn      | 7   | 6 | 111       | 3   | 3   | 3   |     | 3          | M  | Poor | Fair | Cavity on southern stem. | Detailed inspection                 | 10-20 | C   | 41.0      | 3.6      |
| T52      | Silver birch    | 8   | 1 | 164       | 1.5 | 1.5 | 1.5 | 1.5 | 1.5        | EM | Fair | Fair | -                        | No immediate works required.        | 20-40 | C   | 12.2      | 2.0      |
| T53      | Pedunculate oak | 12  | 1 | 280       | 4   | 4   | 2   | 6   | 4          | SM | Fair | Fair | -                        | No immediate works required.        | 40+   | C   | 35.5      | 3.4      |
| T54      | Field maple     | 12  | 1 | 382       | 4   | 4   | 4   | 6   | 4          | EM | Fair | Fair | -                        | No immediate works required.        | 20-40 | C   | 66.0      | 4.6      |
| T55      | Silver birch    | 10  | 1 | 223       | 2   | 2   | 2   |     | 2          | M  | Fair | Poor | -                        | No immediate works required.        | 10-20 | C   | 22.5      | 2.7      |
| T56      | Field maple     | 3   | 2 | 223       | 1.5 | 1.5 | 1.5 | 1.5 | 1.5        | SM | Poor | Fair | -                        | No immediate works required.        | 0-10  | U   | 22.5      | 2.7      |
| T57      | Common alder    | 14  | 1 | 277       | 3   | 3   | 3   | 3   | 3          | M  | Fair | Fair | Heavily ivy clad.        | Sever ivy and re-inspect.           | 20-40 | C   | 34.7      | 3.3      |
| T58      | Pedunculate oak | 0   | 1 | 188       | 2   | 2   | 2   | 2   | 2          | Y  | Fair | Fair | -                        | No immediate works required.        | 40+   | C   | 16.0      | 2.3      |

## Appendix 1: Schedule of Trees

| Tree No. | Species      | Ht. | S | SL<br>1.5 | N   | S   | E   | W   | Cr.<br>Cl. | Ls | SC   | PG   | Comments/<br>Observation | Preliminary<br>Management<br>Advice | LE    | Cal | RPA<br>m² | RPA<br>/ |
|----------|--------------|-----|---|-----------|-----|-----|-----|-----|------------|----|------|------|--------------------------|-------------------------------------|-------|-----|-----------|----------|
| T59      | Sycamore     | 13  | 1 | 319       | 4   | 4   | 4   | 4   | 4          | EM | Fair | Good | -                        | No immediate works required.        | 20-40 | B   | 46.0      | 3.8      |
| T60      | Silver birch | 8   | 2 | 162       | 2   | 2   | 2   | 2   | 2          | EM | Fair | Poor | -                        | No immediate works required.        | 0-10  | C   | 23.7      | 2.7      |
| T61      | White poplar | 20  | 1 | 417       | 2   | 2   | 2   | 2   | 2          | SM | Fair | Fair | -                        | No immediate works required.        | 40+   | C   | 78.7      | 5.0      |
| T62      | Field maple  | 10  | 5 | 169       | 6   | 6   | 6   | 6   | 6          | M  | Fair | Good | -                        | No immediate works required.        | 20-40 | C   | 64.6      | 4.5      |
| T63      | Field maple  | 10  | 3 | 197       | 3   | 3   | 3   | 3   | 3          | EM | Fair | Fair | -                        | No immediate works required.        | 20-40 | C   | 52.7      | 4.1      |
| T64      | Field maple  | 8   | 3 | 261       | 3   | 5   | 6   | 6   | 3          | SM | Fair | Fair | -                        | No immediate works required.        | 20-40 | C   | 92.4      | 5.4      |
| T65      | Black pine   | 13  | 1 | 258       | 2   | 2   | 2   | 2   | 2          | SM | Good | Good | -                        | No immediate works required.        | 40+   | B   | 30.1      | 3.1      |
| T66      | Silver birch | 8   | 1 | 198       | 1.5 | 1.5 | 1.5 | 1.5 | 1.5        | SM | Fair | Fair | -                        | No immediate works required.        | 20-40 | C   | 17.7      | 2.4      |

## Appendix 1: Schedule of Trees

| Tree No. | Species      | Ht. | S | SL<br>1.5 | N | S | E | W | Cr.<br>Cl. | Ls | SC   | PG   | Comments/<br>Observation                | Preliminary<br>Management<br>Advice | LE    | Cal | RPA<br>m <sup>2</sup> | RPA<br>% |
|----------|--------------|-----|---|-----------|---|---|---|---|------------|----|------|------|-----------------------------------------|-------------------------------------|-------|-----|-----------------------|----------|
| T67      | Field maple  | 10  | 7 | 263       | 7 | 3 | 3 | 3 | 7          | M  | Fair | Fair | Several areas of stripped bark.         | No immediate works required.        | 20-40 | C   | 127.7                 | 6.4      |
| T68      | Common alder | 6   | 1 | 258       | 3 | 3 | 3 | 3 | 3          | M  | Fair | Fair | -                                       | No immediate works required.        | 20-40 | C   | 30.1                  | 3.1      |
| T69      | White willow | 20  | 1 | 474       | 4 | 4 | 4 | 4 | 4          | M  | Fair | Good | -                                       | No immediate works required.        | 40+   | C   | 101.6                 | 5.7      |
| T70      | Field maple  | 8   | 1 | 257       | 1 | 3 | 3 | 3 | 1          | SM | Fair | Fair | -                                       | No immediate works required.        | 20-40 | C   | 29.9                  | 3.1      |
| T71      | Field maple  | 12  | 2 | 227       | 3 | 4 | 4 | 2 | 3          | SM | Fair | Fair | -                                       | No immediate works required.        | 20-40 | C   | 23.6                  | 2.7      |
| T72      | Field maple  | 4   | 1 | 261       | 1 | 1 | 1 | 1 | 1          | OM | Poor | Poor | Tree felled at 1m, regenerative growth. | No immediate works required.        | 0-10  | U   | 30.8                  | 3.1      |
| T73      | Field maple  | 10  | 3 | 223       | 3 | 3 | 3 | 3 | 3          | EM | Fair | Fair | -                                       | No immediate works required.        | 20-40 | C   | 22.5                  | 2.7      |
| T74      | Field maple  | 9   | 1 | 220       | 3 | 2 | 2 | 2 | 3          | SM | Poor | Fair | -                                       | No immediate works required.        | 20-40 | C   | 21.9                  | 2.6      |

## Appendix 1: Schedule of Trees

| Tree No. | Species         | Ht. | S | SL 1.5 | N | S | E | W | Cr. Cl. | Ls | SC   | PG   | Comments/ Observation | Preliminary Management Advice | LE    | Cal | RPA m² | RPA / |
|----------|-----------------|-----|---|--------|---|---|---|---|---------|----|------|------|-----------------------|-------------------------------|-------|-----|--------|-------|
| T75      | Black pine      | 17  | 1 | 335    | 3 | 3 | 3 | 3 | 3       | EM | Good | Good | -                     | No immediate works required.  | 40+   | B   | 50.8   | 4.0   |
| T76      | Holm oak        | 11  | 1 | 296    | 4 | 4 | 4 | 4 | 4       | M  | Fair | Fair | -                     | No immediate works required.  | 40+   | B   | 39.6   | 3.6   |
| T77      | Pedunculate oak | 10  | 1 | 267    | 4 | 3 | 3 | 3 | 4       | SM | Fair | Fair | -                     | No immediate works required.  | 40+   | C   | 32.3   | 3.2   |
| T78      | Black pine      | 8   | 1 | 259    | 2 | 2 | 2 | 2 | 2       | SM | Fair | Fair | -                     | No immediate works required.  | 40+   | C   | 30.3   | 3.1   |
| T79      | Pedunculate oak | 8   | 1 | 249    | 2 | 2 | 3 | 3 | 2       | SM | Fair | Fair | -                     | No immediate works required.  | 40+   | B   | 28.0   | 3.0   |
| T80      | Silver birch    | 9   | 1 | 264    | 3 | 1 | 2 | 2 | 3       | EM | Fair | Poor | -                     | No immediate works required.  | 10-20 | C   | 31.5   | 3.2   |
| T81      | Field maple     | 12  | 1 | 354    | 4 | 2 | 3 | 3 | 4       | M  | Poor | Fair | -                     | No immediate works required.  | 20-40 | C   | 56.7   | 4.2   |
| T82      | Silver birch    | 0   | 1 | 169    | 2 | 1 | 1 | 1 | 2       | EM | Fair | Fair | -                     | No immediate works required.  | 20-40 | C   | 12.9   | 2.0   |

## Appendix 1: Schedule of Trees

| Tree No. | Species         | Ht. | S | SL<br>1.5 | N | S | E | W | Cr.<br>Cl. | Ls | SC   | PC   | Comments/<br>Observation | Preliminary<br>Management<br>Advice | LE    | Cal | RPA<br>m² | RPA<br>% |
|----------|-----------------|-----|---|-----------|---|---|---|---|------------|----|------|------|--------------------------|-------------------------------------|-------|-----|-----------|----------|
| T83      | Field maple     | 15  | 2 | 395       | 4 | 4 | 4 | 4 | 4          | M  | Fair | Fair | -                        | No immediate works required.        | 20-40 | C   | 70.6      | 4.7      |
| T84      | Silver birch    | 10  | 1 | 329       | 3 | 3 | 3 | 3 | 3          | M  | Fair | Fair | -                        | No immediate works required.        | 10-20 | C   | 49.0      | 3.9      |
| T85      | Field maple     | 12  | 1 | 287       | 3 | 3 | 2 | 2 | 3          | M  | Fair | Fair | -                        | No immediate works required.        | 20-40 | C   | 37.3      | 3.4      |
| T86      | Field maple     | 7   | 2 | 286       | 3 | 3 | 3 | 3 | 3          | M  | Poor | Fair | -                        | No immediate works required.        | 20-40 | C   | 74.0      | 4.9      |
| T87      | Field maple     | 6   | 1 | 405       | 2 | 2 | 2 | 2 | 2          | M  | Fair | Fair | -                        | No immediate works required.        | 20-40 | C   | 74.2      | 4.9      |
| T88      | Sycamore        | 11  | 1 | 226       | 3 | 3 | 3 | 3 | 3          | SM | Poor | Fair | -                        | No immediate works required.        | 40+   | C   | 23.1      | 2.7      |
| T89      | Common hawthorn | 6   | 1 | 309       | 3 | 3 | 3 | 3 | 3          | M  | Fair | Poor | -                        | No immediate works required.        | 20-40 | C   | 43.2      | 3.7      |
| T90      | Elder           | 5   | 3 | 15        | 2 | 2 | 2 | 2 | 2          | M  | Poor | Poor | -                        | No immediate works required.        | 20-40 | C   | 3.0       | 1.0      |

## Appendix 1: Schedule of Trees

| Tree No. | Species         | Ht. | S  | SL<br>1.5 | N   | S   | E   | W   | Cr.<br>Cl. | Ls | SC   | PC   | Comments/<br>Observation                                                                                                               | Preliminary<br>Management<br>Advice | LE    | Cal | RPA<br>m² | RPA<br>% |
|----------|-----------------|-----|----|-----------|-----|-----|-----|-----|------------|----|------|------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------|-----|-----------|----------|
| T91      | White poplar    | 7   | 1  | 350       | 8   | 1   | 4   | 4   | 8          | M  | Poor | Fair | Severe lean to north.                                                                                                                  | No immediate works required.        | 10-20 | C   | 55.4      | 4.2      |
| T92      | Black poplar    | 15  | 3  | 605       | 12  | 12  | 12  | 12  | 12         | OM | Good | Good | -                                                                                                                                      | No immediate works required.        | 40+   | B   | 496.7     | 12.6     |
| T93      | Common hawthorn | 7   | 1  | 159       | 3   | 3   | 3   | 3   | 3          | EM | Poor | Good | Suppressed.                                                                                                                            | No immediate works required.        | 40+   | C   | 11.4      | 1.9      |
| T94      | Monterey pine   | 9   | 1  | 509       | 4   | 3   | 9   | 5   | 4          | M  | Fair | Good | -                                                                                                                                      | No immediate works required.        | 40+   | B   | 117.2     | 6.1      |
| T95      | Holm oak        | 10  | 7  | 382       | 7   | 7   | 8   | 8   | 7          | OM | Fair | Good | Cavity at fork on east side.                                                                                                           | Detailed inspection.                | 40+   | B   | 326.0     | 10.2     |
| T96      | Goat willow     | 9   | 12 | 430       | 7.5 | 7.5 | 7.5 | 7.5 | 7.5        | OM | Fair | Fair | Large decay pockets on several limbs, bark necrosis, abundance of deadwood. Recommend retention if possible due to high amenity value. | Detailed inspection.                | 20-40 | B   | 9503      | 55       |
| T97      | Black poplar    | 19  | 1  | 535       | 4   | 4   | 5   | 4   | 4          | M  | Fair | Fair | -                                                                                                                                      | No immediate works required.        | 40+   | B   | 129.5     | 6.4      |

## Appendix 1: Schedule of Trees

| Tree No. | Species      | Ht. | S | SL<br>1.5 | N | S | E | W | Cr.<br>Cl. | Ls | SC   | PC   | Comments/<br>Observation | Preliminary<br>Management<br>Advice | LE    | Cal | RPA<br>m <sup>2</sup> | RPA<br>% |
|----------|--------------|-----|---|-----------|---|---|---|---|------------|----|------|------|--------------------------|-------------------------------------|-------|-----|-----------------------|----------|
| T98      | Field maple  | 6   | 1 | 239       | 4 | 3 | 3 | 4 | 4          | SM | Fair | Fair | -                        | No immediate works required.        | 20-40 | C   | 25.7                  | 2.9      |
| T99      | Field maple  | 4   | 1 | 159       | 2 | 2 | 2 | 2 | 2          | Y  | Poor | Fair | -                        | No immediate works required.        | 20-40 | C   | 11.4                  | 1.9      |
| T100     | Black poplar | 20  | 1 | 465       | 4 | 4 | 4 | 4 | 4          | M  | Good | Fair | -                        | No immediate works required.        | 40+   | B   | 97.8                  | 5.6      |
| T101     | White poplar | 18  | 2 | 325       | 2 | 5 | 4 | 3 | 2          | M  | Fair | Fair | -                        | No immediate works required.        | 40+   | B   | 47.8                  | 3.9      |
| T102     | Field maple  | 4   | 1 | 360       | 2 | 1 | 4 | 1 | 2          | M  | Fair | Fair | -                        | No immediate works required.        | 20-40 | C   | 58.6                  | 4.3      |
| T103     | Field maple  | 6   | 1 | 143       | 2 | 2 | 0 | 0 | 2          | Y  | Fair | Fair | -                        | No immediate works required.        | 0-10  | C   | 9.3                   | 1.7      |
| T104     | Field maple  | 9   | 1 | 213       | 2 | 3 | 2 | 2 | 2          | SM | Fair | Fair | -                        | No immediate works required.        | 10-20 | C   | 20.5                  | 2.6      |
| T105     | Field maple  | 5   | 1 | 232       | 1 | 1 | 1 | 1 | 1          | EM | Poor | Fair | Snapped leading stem.    | No immediate works required.        | 10-20 | C   | 24.3                  | 2.8      |

## Appendix 1: Schedule of Trees

| Tree No. | Species         | Ht. | S | SL 1.5 | N | S | E | W | Cr. Cl. | Ls | SC   | PG   | Comments/ Observation                                                                                       | Preliminary Management Advice                 | LE    | Cal | RPA m² | RPA / |
|----------|-----------------|-----|---|--------|---|---|---|---|---------|----|------|------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------|-----|--------|-------|
| T106     | Field maple     | 5   | 1 | 180    | 1 | 1 | 1 | 1 | 1       | Y  | Fair | Fair | -                                                                                                           | No immediate works required.                  | 0-10  | C   | 14.7   | 2.2   |
| T107     | White poplar    | 8   | 1 | 159    | 2 | 2 | 8 | 0 | 2       | EM | Poor | Fair | Heavy lean to the east, attributing for the crown distribution.                                             | No immediate works required.                  | 10-20 | C   | 11.4   | 1.9   |
| T108     | White willow    | 15  | 1 | 360    | 4 | 4 | 6 | 0 | 4       | M  | Fair | Fair | Heavy lean to the east, root plate intact                                                                   | Detailed inspection.                          | 20-40 | B   | 58.6   | 4.3   |
| T109     | White poplar    | 20  | 2 | 385    |   |   |   |   |         | M  | Fair | Fair | Northeast stem has heavy lean and basal decay, recommend removal of said stem to reduce risk to the public. | Detailed inspection, remove recommended limb. | 40+   | B   | 91.2   | 5.4   |
| T110     | Field maple     | 7   | 1 | 134    | 2 | 2 | 2 | 2 | 2       | SM | Poor | Poor | Bark stripped up to 2.5m.                                                                                   | Remove.                                       | 0-10  | U   | 8.1    | 1.6   |
| T111     | Field maple     | 6   | 1 | 153    | 3 | 1 | 3 | 2 | 3       | SM | Fair | Fair | -                                                                                                           | No immediate works required.                  | 10-20 | C   | 10.6   | 1.8   |
| T112     | Common hawthorn | 6   | 1 | 172    | 2 | 2 | 2 | 2 | 2       | SM | Fair | Fair | -                                                                                                           | No immediate works required.                  | 10-20 | C   | 13.4   | 2.1   |
| T112     | White poplar    | 15  | 2 | 193    | 0 | 4 | 1 | 1 | 0       | SM | Poor | Fair | -                                                                                                           | No immediate works required.                  | 10-20 | C   | 33.7   | 3.3   |

## Appendix 1: Schedule of Trees

| Tree No. | Species      | Ht. | S | SL 1.5 | N | S | E | W | Cr. Cl. | Ls | SC   | PG   | Comments/ Observation                                                                            | Preliminary Management Advice | LE    | Cal | RPA m² | RPA / |
|----------|--------------|-----|---|--------|---|---|---|---|---------|----|------|------|--------------------------------------------------------------------------------------------------|-------------------------------|-------|-----|--------|-------|
| T114     | Field maple  | 7   | 2 | 111    | 2 | 2 | 2 | 2 | 2       | Y  | Poor | Fair | Large area of bark removed on stem                                                               | No immediate works required.  | 10-20 | C   | 11.1   | 1.9   |
| T115     | White poplar | 8   | 1 | 471    | 1 | 3 | 6 | 1 | 1       | M  | Poor | Poor | Heavy lean to the east, root plate lifted, western side of root plate sheared. Consider removal. | Remove.                       | 10-20 | U   | 100.4  | 5.7   |
| T116     | Field maple  | 6   | 1 | 146    | 2 | 2 | 2 | 2 | 2       | Y  | Fair | Fair | -                                                                                                | No immediate works required.  | 10-20 | C   | 9.6    | 1.8   |
| T117     | Field maple  | 7   | 2 | 166    | 2 | 2 | 2 | 2 | 2       | Y  | Poor | Fair | -                                                                                                | No immediate works required.  | 10-20 | C   | 12.5   | 2.0   |
| T118     | Field maple  | 6   | 3 | 118    | 1 | 1 | 1 | 1 | 1       | Y  | Poor | Poor | -                                                                                                | No immediate works required.  | 0-10  | C   | 18.9   | 2.5   |
| T119     | Field maple  | 7   | 1 | 229    | 4 | 1 | 3 | 3 | 4       | SM | Fair | Fair | -                                                                                                | No immediate works required.  | 20-40 | C   | 23.7   | 2.7   |
| T120     | White willow | 15  | 1 | 436    | 3 | 3 | 3 | 3 | 3       | M  | Fair | Fair | -                                                                                                | No immediate works required.  | 40+   | B   | 86.0   | 5.2   |
| T121     | Black poplar | 9   | 2 | 188    | 2 | 2 | 2 | 2 | 2       | SM | Poor | Poor | Ivy clad, heavy lean, lacking foliage.                                                           | Sever ivy and re-inspect.     | 0-10  | C   | 42.2   | 3.7   |

## Appendix 1: Schedule of Trees

| Tree No.          | Species      | Ht. | S | SL 1.5 | N  | S | E  | W | Cr. Cl. | Ls | SC   | PG   | Comments/ Observation                      | Preliminary Management Advice | LE    | Cal | RPA m <sup>2</sup> | RPA / |
|-------------------|--------------|-----|---|--------|----|---|----|---|---------|----|------|------|--------------------------------------------|-------------------------------|-------|-----|--------------------|-------|
| T122              | White willow | 15  | 1 | 449    | 4  | 3 | 3  | 3 | 4       | M  | Fair | Fair | -                                          | No immediate works required.  | 40+   | B   | 91.2               | 5.4   |
| T123              | Field maple  | 8   | 2 | 216    | 4  | 2 | 3  | 3 | 4       | SM | Fair | Fair | -                                          | No immediate works required.  | 20-40 | C   | 21.1               | 2.6   |
| T124              | Field maple  | 10  | 1 | 386    | 3  | 3 | 2  | 4 | 3       | M  | Fair | Fair | Ivy clad.                                  | Sever ivy and re-inspect.     | 20-40 | C   | 67.4               | 4.6   |
| T125              | Field maple  | 7   | 1 | 127    | 6  | 1 | 6  | 6 | 6       | SM | Poor | Good | Lean to northwest.                         | No immediate works required.  | 40+   | C   | 7.3                | 1.5   |
| T125 <sub>a</sub> | Black Poplar | 15  | 2 | 381    | 10 | 1 | 10 | 1 | 3       | M  | Poor | Good | Severe lean to east                        | No immediate works required.  | 40+   | C   | 82.1               | 5.1   |
| T126              | Black poplar | 15  | 2 | 414    | 8  | 4 | 4  | 4 | 8       | M  | Good | Good | Ivy clad, possible occlusion at main fork. | Sever ivy and re-inspect.     | 40+   | B   | 243.1              | 8.8   |
| T127              | Black poplar | 7   | 1 | 414    | 2  | 2 | 2  | 2 | 2       | M  | Poor | Good | Pollard wound semi occluded on north side. | No immediate works required.  | 0-10  | C   | 77.5               | 5.0   |
| T128              | Black poplar | 15  | 1 | 605    | 5  | 5 | 5  | 5 | 5       | M  | Good | Good | Ivy clad.                                  | No immediate works required.  | 40+   | B   | 165.6              | 7.3   |
| T129              | Sycamore     | 7   | 1 | 127    | 3  | 3 | 3  | 3 | 3       | SM | Fair | Fair | Ivy clad, suppressed.                      | No immediate                  | 10-20 | C   | 7.3                | 1.5   |

## Appendix 1: Schedule of Trees

| Tree No. | Species      | Ht. | S | SL<br>1.5 | N | S | E | W | Cr.<br>Cl. | Ls | SC   | PG   | Comments/<br>Observation                      | Preliminary<br>Management<br>Advice | LE    | Cal | RPA<br>m² | RPA<br>% |
|----------|--------------|-----|---|-----------|---|---|---|---|------------|----|------|------|-----------------------------------------------|-------------------------------------|-------|-----|-----------|----------|
|          |              |     |   |           |   |   |   |   |            |    |      |      |                                               | works required.                     |       |     |           |          |
| T130     | Black poplar | 15  | 1 | 414       | 8 | 8 | 8 | 8 | 8          | M  | Good | Good | Ivy clad inspection inhibited.                | Sever ivy and re-inspect            | 40+   | B   | 77.5      | 5.0      |
| T131     | Sycamore     | 7   | 1 | 127       | 3 | 3 | 3 | 3 | 3          | SM | Poor | Fair | Ivy clad supressed.                           | No immediate works required.        | 10-20 | C   | 7.3       | 1.5      |
| T132     | White poplar | 15  | 1 | 350       | 3 | 3 | 5 | 8 | 3          | M  | Fair | Good | Unbalanced bias to west.                      | No immediate works required.        | 40+   | B   | 55.4      | 4.2      |
| T133     | Black poplar | 15  | 2 | 191       | 5 | 3 | 3 | 3 | 5          | M  | Fair | Good | Heavy ivy clad.                               | Sever ivy and re-inspect.           | 40+   | B   | 94.0      | 5.5      |
| T134     | Black poplar | 15  | 2 | 286       | 3 | 4 | 3 | 3 | 3          | EM | Fair | Fair | -                                             | No immediate works required.        | 40+   | C   | 74.0      | 4.9      |
| T135     | White poplar | 10  | 1 | 191       | 3 | 3 | 3 | 3 | 3          | EM | Fair | Good | Grown in height rapidly to compete for light. | No immediate works required.        | 40+   | C   | 16.5      | 2.3      |
| T136     | Holm oak     | 4   | 1 | 223       | 3 | 2 | 5 | 2 | 3          | EM | Fair | Fair | Supressed.                                    | No immediate works required.        | 20-40 | C   | 22.5      | 2.7      |
| T137     | White poplar | 10  | 1 | 223       | 1 | 8 | 3 | 3 | 1          | EM | Poor | Fair | Lean to south white poplar.                   | No immediate works required.        | 20-40 | C   | 22.5      | 2.7      |

## Appendix 1: Schedule of Trees

| Tree No. | Species      | Ht. | S | SL<br>1.5 | N  | S | E  | W | Cr.<br>Cl. | Ls | SC   | PG   | Comments/<br>Observation                                        | Preliminary<br>Management<br>Advice   | LE    | Cal | RPA<br>m² | RPA<br>/ |
|----------|--------------|-----|---|-----------|----|---|----|---|------------|----|------|------|-----------------------------------------------------------------|---------------------------------------|-------|-----|-----------|----------|
| T138     | Black poplar | 15  | 2 | 414       | 7  | 7 | 7  |   | 7          | M  | Fair | Good | Ivy on main stem,<br>inspection inhibited.                      | Sever ivy<br>and re-<br>inspect.      | 20-40 | B   | 155.<br>0 | 7.0      |
| T139     | Black poplar | 15  | 1 | 318       | 8  | 8 | 8  | 8 | 8          | M  | Good | Good | -                                                               | No<br>immediate<br>works<br>required. | 40+   | B   | 45.7      | 3.8      |
| T140     | Black poplar | 15  | 2 | 286       | 8  | 8 | 8  | 8 | 8          | M  | Fair | Good | Possible inclusion at<br>first fork, inspect as<br>ivy obscures | Sever ivy<br>and re-<br>inspect.      | 40+   | B   | 36.8      | 3.4      |
| T141     | White poplar | 15  | 1 | 414       | 12 | 1 | 8  | 1 | 12         | M  | Poor | Fair | Heavy lean to north<br>ivy clad.                                | No<br>immediate<br>works<br>required. | 10-20 | C   | 77.5      | 5.0      |
| T142     | White poplar | 15  | 1 | 414       | 8  | 8 | 8  | 8 | 8          | M  | Good | Good | Ivy clad.                                                       | No<br>immediate<br>works<br>required. | 40+   | B   | 77.5      | 5.0      |
| T143     | Black poplar | 15  | 1 | 318       | 5  | 5 | 7  | 1 | 5          | M  | Fair | Good | Suppressed on west<br>side.                                     | No<br>immediate<br>works<br>required. | 40+   | B   | 45.7      | 3.8      |
| T144     | Black poplar | 15  | 2 | 318       | 8  | 8 | 8  | 8 | 8          | M  | Fair | Good | Inclusion at first fork.                                        | Monitor.                              | 40+   | B   | 91.5      | 5.4      |
| T145     | White poplar | 7   | 2 | 191       | 14 | 1 | 17 | 1 | 14         | M  | Poor | Good | Severe lean to east<br>inclusions at first<br>fork.             | Monitor.                              | 20-40 | C   | 53.5      | 4.1      |
| T146     | Holm oak     | 7   | 1 | 127       | 4  | 1 | 1  | 1 | 4          | SM | Poor | Fair | Suppressed on west<br>side.                                     | No<br>immediate<br>works<br>required. | 10-20 | C   | 7.3       | 1.5      |

## Appendix 1: Schedule of Trees

| Tree No. | Species      | Ht. | S | SL 1.5 | N  | S | E | W | Cr. Cl. | Ls | SC   | PG   | Comments/ Observation                                              | Preliminary Management Advice       | LE    | Can | RPA m² | RPA / |
|----------|--------------|-----|---|--------|----|---|---|---|---------|----|------|------|--------------------------------------------------------------------|-------------------------------------|-------|-----|--------|-------|
| T147     | Common ash   | 10  | 1 | 223    | 8  | 1 | 8 | 4 | 8       | EM | Poor | Poor | In decline high dead wood content inclusion at first fork.         | Remove.                             | 0-10  | U   | 22.5   | 2.7   |
| T148     | White willow | 10  | 2 | 223    | 5  | 5 | 5 | 5 | 5       | EM | Fair | Good | -                                                                  | No immediate works required.        | 40+   | C   | 90.7   | 5.4   |
| T149     | White willow | 7   | 3 | 223    | 7  | 5 | 7 | 5 | 7       | EM | Fair | Good | -                                                                  | No immediate works required.        | 40+   | C   | 67.5   | 4.6   |
| T150     | White willow | 11  | 5 | 255    | 12 | 5 | 8 | 2 | 12      | M  | Poor | Good | Ivy clad, possible inclusion, inspection inhibited.                | Sever ivy and re-inspect.           | 40+   | C   | 108.3  | 5.9   |
| T151     | White poplar | 12  | 1 | 318    | 8  | 1 | 7 | 2 | 8       | EM | Fair | Good | Lean to north.                                                     | No immediate works required.        | 40+   | C   | 45.7   | 3.8   |
| T152     | White poplar | 12  | 1 | 223    | 6  | 1 | 6 | 1 | 6       | EM | Poor | Fair | Moderate dead wood, lean to north, ivy clad, inspection inhibited. | Deadwood, sever ivy and re-inspect. | 10-20 | C   | 22.5   | 2.7   |
| T153     | White poplar | 12  | 1 | 318    | 8  | 1 | 8 | 1 | 8       | EM | Poor | Good | Heavy lean to north, ivy clad, inspection inhibited.               | Sever ivy and re-inspect.           | 10-20 | C   | 45.7   | 3.8   |
| T154     | Sycamore     | 10  | 2 | 127    | 2  | 2 | 2 | 2 | 2       | SM | Fair | Poor | In decline.                                                        | No immediate works required.        | 0-10  | C   | 14.6   | 2.2   |
| T155     | Holm oak     | 9   | 3 | 191    | 3  | 3 | 3 | 1 | 3       | EM | Fair | Good | -                                                                  | No immediate                        | 40+   | B   | 66.6   | 4.6   |

## Appendix 1: Schedule of Trees

| Tree No. | Species      | Ht. | S | SL<br>1.5 | N | S | E | W | Cr.<br>Cl. | Ls | SC   | PG   | Comments/<br>Observation                                  | Preliminary<br>Management<br>Advice | LE    | Can | RPA<br>m² | RPA<br>% |
|----------|--------------|-----|---|-----------|---|---|---|---|------------|----|------|------|-----------------------------------------------------------|-------------------------------------|-------|-----|-----------|----------|
|          |              |     |   |           |   |   |   |   |            |    |      |      |                                                           | works required.                     |       |     |           |          |
| T156     | Sycamore     | 10  | 3 | 80        | 3 | 3 | 3 | 3 | 3          | EM | Fair | Fair | -                                                         | No immediate works required.        | 10-20 | C   | 17.2      | 2.3      |
| T157     | White poplar | 12  | 2 | 91        | 8 | 8 | 8 | 8 | 8          | M  | Fair | Good | -                                                         | No immediate works required.        | 40+   | C   | 59.5      | 4.4      |
| T158     | White poplar | 12  | 1 | 318       | 6 | 2 | 6 | 6 | 6          | EM | Fair | Good | Group of 8 white poplar, semi mature to mature, 12m high. | No immediate works required.        | 20-40 | C   | 45.7      | 3.8      |
| T159     | Black pine   | 10  | 1 | 255       | 4 | 3 | 3 | 3 | 4          | SM | Good | Good | Ivy clad.                                                 | No immediate works required.        | 40+   | C   | 29.4      | 3.1      |
| T160     | Silver birch | 12  | 1 | 159       | 5 | 2 | 3 | 3 | 5          | EM | Fair | Fair | -                                                         | No immediate works required.        | 20-40 | C   | 11.4      | 1.9      |
| T161     | Silver birch | 12  | 1 | 159       | 5 | 5 | 5 | 5 | 5          | EM | Poor | Fair | -                                                         | No immediate works required.        | 10-20 | C   | 11.4      | 1.9      |
| T162     | White poplar | 10  | 1 | 191       | 1 | 1 | 5 | 1 | 1          | M  | Poor | Fair | Heavy lean to east.                                       | No immediate works required.        | 10-20 | C   | 66.6      | 4.6      |

## Appendix 1: Schedule of Trees

| Tree No.          | Species      | Ht. | S | SL 1.5 | N | S | E | W | Cr. Cl. | Ls | SC   | PG   | Comments/ Observation                    | Preliminary Management Advice | LE    | Cal | RPA m² | RPA / |
|-------------------|--------------|-----|---|--------|---|---|---|---|---------|----|------|------|------------------------------------------|-------------------------------|-------|-----|--------|-------|
| T163              | Sycamore     | 10  | 2 | 159    | 4 | 4 | 4 | 4 | 4       | EM | Poor | Good | -                                        | No immediate works required.  | 40+   | C   | 22.9   | 2.7   |
| T164              | Sycamore     | 10  | 2 | 191    | 4 | 4 | 4 | 4 | 4       | M  | Poor | Fair | Split fork on west side.                 | No immediate works required.  | 10-20 | C   | 27.9   | 3.0   |
| T165              | Sycamore     | 10  | 2 | 127    | 4 | 4 | 4 | 4 | 4       | EM | Poor | Good | -                                        | No immediate works required.  | 40+   | C   | 11.4   | 1.9   |
| T165 <sub>a</sub> | Sycamore     | 10  | 1 | 318    | 4 | 4 | 4 | 4 | 4       | EM | Fair | Fair | -                                        | No immediate works required.  | 40+   | C   | 45.7   | 3.8   |
| T167              | White poplar | 12  | 2 | 127    | 7 | 1 | 7 | 1 | 7       | M  | Poor | Good | Heavy lean to east.                      | No immediate works required.  | 20-40 | B   | 62.7   | 4.5   |
| T168              | Holm oak     | 12  | 1 | 286    | 6 | 4 | 4 | 4 | 6       | EM | Good | Good | Ivy clad.                                | No immediate works required.  | 40+   | B   | 37.0   | 3.4   |
| T169              | White poplar | 12  | 1 | 318    | 7 | 1 | 7 | 4 | 7       | M  |      |      | Major fracture at 1m above ground level. | Remove.                       | 0-10  | U   | 45.7   | 3.8   |
| T171              | Sycamore     | 7   | 4 | 223    | 4 | 4 | 4 | 4 | 4       | M  | Poor | Good | Bark inclusions at base.                 | No immediate works required.  | 40+   | C   | 58.1   | 4.3   |

## Appendix 1: Schedule of Trees

| Tree No. | Species      | Ht. | S | SL 1.5 | N  | S | E | W   | Cr. Cl. | Ls | SC   | PG   | Comments/ Observation                                        | Preliminary Management Advice | LE    | Cal | RPA m² | RPA / |
|----------|--------------|-----|---|--------|----|---|---|-----|---------|----|------|------|--------------------------------------------------------------|-------------------------------|-------|-----|--------|-------|
| T172     | White poplar | 12  | 2 | 223    | 11 | 1 | 8 | 1   | 11      | M  | Poor | Good | Heavy lean to northwest.                                     | No immediate works required.  | 10-20 | C   | 45.0   | 3.8   |
| T173     | Sycamore     | 7   | 1 | 223    | 2  | 6 | 3 | 0.5 | 2       | EM | Fair | Good | -                                                            | No immediate works required.  | 40+   | C   | 22.5   | 2.7   |
| T174     | Sycamore     | 10  | 1 | 191    | 4  | 4 | 4 | 4   | 4       | EM | Good | Good | -                                                            | No immediate works required.  | 40+   | B   | 16.5   | 2.3   |
| T175     | Sycamore     | 7   | 1 | 223    | 1  | 6 | 3 | 3   | 1       | EM | Fair | Good | -                                                            | No immediate works required.  | 40+   | B   | 22.5   | 2.7   |
| T176     | Sycamore     | 10  | 1 | 159    | 3  | 3 | 3 | 3   | 3       | EM | Fair | Fair | -                                                            | No immediate works required.  | 10-20 | C   | 11.4   | 1.9   |
| T177     | Black pine   | 12  | 1 | 191    | 2  | 2 | 2 | 2   | 2       | M  | Poor | Poor | Almost dead suppressed.                                      | Remove.                       | 0-10  | U   | 16.5   | 2.3   |
| T178     | Black pine   | 15  | 1 | 255    | 3  | 3 | 3 | 3   | 3       | M  | Fair | Poor | Die back throughout, cavity on main stem at 1m above ground. | Detailed inspection.          | 10-20 | C   | 29.4   | 3.1   |
| T179     | Holm oak     | 12  | 3 | 191    | 4  | 4 | 4 | 4   | 4       | EM | Fair | Fair | -                                                            | No immediate works required.  | 10-20 | C   | 20.6   | 2.6   |
| T181     | Sycamore     | 7   | 2 | 127    | 1  | 4 | 3 | 1   | 1       | SM | Fair | Good | Broken branches at 1.5.                                      |                               | 40+   | C   | 14.6   | 2.2   |

## Appendix 1: Schedule of Trees

| Tree No. | Species         | Ht. | S | SL<br>1.5 | N | S | E | W | Cr.<br>Cl. | Ls | SC   | PG   | Comments/<br>Observation                            | Preliminary<br>Management<br>Advice | LE    | Cal | RPA<br>m² | RPA<br>/ |
|----------|-----------------|-----|---|-----------|---|---|---|---|------------|----|------|------|-----------------------------------------------------|-------------------------------------|-------|-----|-----------|----------|
| T182     | Common hawthorn | 0   | 1 | 80        | 2 | 2 | 2 | 2 | 2          | Y  | Poor | Fair | -                                                   | No immediate works required.        | 40+   | C   | 2.9       | 1.0      |
| T183     | Sycamore        | 7   | 1 | 191       | 5 | 5 | 3 | 1 | 5          | EM | Good | Good | -                                                   | No immediate works required.        | 40+   | B   | 16.5      | 2.3      |
| T184     | White poplar    | 16  | 4 | 255       | 6 | 6 | 6 | 6 | 6          | M  | Fair | Poor | Die back, upper canopy ivy clad and bark inclusion. | Remove.                             | 0-10  | C   | 73.4      | 4.8      |
| T185     | Sycamore        | 12  | 1 | 255       | 5 | 1 | 7 | 1 | 5          | EM | Poor | Fair | Heavy lean to east.                                 | No immediate works required.        | 10-20 | C   | 29.4      | 3.1      |
| T186     | Black poplar    | 16  | 2 | 477       | 8 | 8 | 8 | 8 | 8          | OM | Good | Good | -                                                   | No immediate works required.        | 40+   | A   | 205.8     | 8.1      |
| T187     | Pedunculate oak | 7   | 1 | 159       | 4 | 1 | 4 | 4 | 4          | SM | Fair | Poor | Die back on meristem.                               | No immediate works required.        | 0-10  | C   | 11.4      | 1.9      |
| T188     | Holm oak        | 12  | 1 | 223       | 7 | 7 | 7 |   | 7          | M  | Fair | Good | -                                                   | No immediate works required.        | 40+   | C   | 22.5      | 2.7      |
| T189     | Sycamore        | 12  | 1 | 255       | 4 | 4 | 4 | 4 | 4          | EM | Fair | Good | Ivy clad throughout, inspection inhibited.          | Sever ivy and re-inspect.           | 40+   | C   | 29.4      | 3.1      |

## Appendix 1: Schedule of Trees

| Tree No. | Species      | Ht.  | S | SL<br>1.5 | N  | S | E  | W | Cr.<br>Cl. | Ls | SC   | PG   | Comments/<br>Observation                                    | Preliminary<br>Management<br>Advice | LE    | Cal | RPA<br>m <sup>2</sup> | RPA<br>/ |
|----------|--------------|------|---|-----------|----|---|----|---|------------|----|------|------|-------------------------------------------------------------|-------------------------------------|-------|-----|-----------------------|----------|
| T190     | Norway maple | 9    | 2 | 318       | 5  | 1 | 5  | 5 | 5          | EM | Poor | Fair | Heavy ivy, inspection inhibited.                            | Sever ivy and re-inspect.           | 10-20 | C   | 45.7                  | 3.8      |
| T191     | Black poplar | 13.6 | 4 | 605       | 2  |   | 9  | 8 | 2          | OM | Fair | Good | Heavily ivy clad.                                           | Sever ivy and re-inspect.           | 40+   | B   | 422.7                 | 11.6     |
| T192     | White poplar | 18.2 | 1 | 382       | 13 | 1 | 14 | 1 | 13         | M  | Poor | Good | Cavity west side at base, ivy clad, heavy lean to northwest | Sever ivy and re-inspect.           | 20-40 | C   | 66.0                  | 4.6      |
| T193     | Holm oak     | 8    | 4 | 191       | 5  | 5 | 5  | 5 | 5          | M  | Good | Fair | Ivy clad throughout.                                        | Sever ivy and re-inspect.           | 40+   | B   | 47.9                  | 3.9      |
| T194     | White poplar | 5.5  | 1 | 223       | 7  | 1 | 1  | 8 | 7          | EM | Poor | Fair | Heavy lean to east, heavy ivy main stem.                    | Sever ivy and re-inspect.           | 10-20 | C   | 22.5                  | 2.7      |
| T195     | White poplar | 7.2  | 1 | 350       | 6  | 6 | 8  | 6 | 6          | M  | Fair | Good | Heavy ivy clad.                                             | No immediate works required.        | 20-40 | C   | 55.4                  | 4.2      |
| T196     | Holm oak     | 9    | 1 | 255       | 2  | 2 | 4  | 2 | 2          | M  | Fair | Fair | Ivy throughout.                                             | No immediate works required.        | 0-10  | C   | 29.4                  | 3.1      |
| T197     | Holm oak     | 9    | 1 | 318       | 4  | 2 | 6  | 6 | 4          | M  | Good | Fair | -                                                           | No immediate works required.        | 20-40 | B   | 45.7                  | 3.8      |
| T198     | Sycamore     | 6    | 5 | 191       | 6  | 3 | 6  | 6 | 6          | M  | Good | Good | Canopy touching building.                                   | No immediate works required.        | 40+   | B   | 77.4                  | 5.0      |

## Appendix 1: Schedule of Trees

| Tree No. | Species          | Ht. | S | SL<br>1.5 | N   | S   | E  | W   | Cr.<br>Cl. | Ls | SC   | PG   | Comments/<br>Observation                                                                       | Preliminary<br>Management<br>Advice | LE    | Cal | RPA<br>m <sup>2</sup> | RPA<br>% |
|----------|------------------|-----|---|-----------|-----|-----|----|-----|------------|----|------|------|------------------------------------------------------------------------------------------------|-------------------------------------|-------|-----|-----------------------|----------|
| T199     | Common whitebeam | 5   | 1 | 159       | 2   | 2   | 2  | 3   | 2          | EM | Fair | Fair | Suppressed by larger neighbouring trees.                                                       | No immediate works required.        | 20-40 | C   | 11.4                  | 1.9      |
| T200     | Goat willow      | 4   | 5 | 255       | 4   | 4   | 8  |     | 4          | M  | Poor | Good | Heavy lean east possible decay at base, poorly formed main stem                                | Detailed inspection.                | 0-10  | C   | 86.2                  | 5.2      |
| T201     | Goat willow      | 8.5 | 4 | 255       | 0.5 | 8   | 8  | 8   | 0.5        | M  | Fair | Good | Main fork has several small semi occluded cavities an inclusion.                               | Detailed inspection.                | 20-40 | B   | 81.7                  | 5.1      |
| T203     | White poplar     | 9   | 2 | 382       | 2   | 3   | 7  | 0.5 | 2          | M  | Poor | Good | -                                                                                              | No immediate works required.        | 10-20 | C   | 95.4                  | 5.5      |
| T204     | White poplar     | 6   | 1 | 318       | 14  | 0.5 | 12 | 4   | 14         | M  | Poor | Good | Stem within 1m of each other, probably same tree stock, heavy lean to east on all three stems. | No immediate works required.        | 20-40 | C   | 137.2                 | 6.6      |
| T205     | White poplar     | 7   | 1 | 255       | 3   | 0.5 | 3  | 3   | 3          | M  | Poor | Good | White poplar growing close to outbuildings.                                                    | No immediate works required.        | 10-20 | C   | 29.4                  | 3.1      |
| T206     | Common whitebeam | 3   | 1 | 191       | 4   | 1   | 1  | 3   | 4          | EM | Fair | Fair | Suppressed, poor growth and no branches to east.                                               | No immediate works required.        | 0-10  | C   | 16.5                  | 2.3      |
| T207     | Monterey cypress | 16  | 2 | 605       | 10  | 1   | 6  | 10  | 10         | OM | Poor | Fair | Major branch loss on west side possible split in this stem further inspection.                 | Detailed inspection.                | 10-20 | C   | 331.2                 | 10.3     |

## Appendix 1: Schedule of Trees

| Tree No. | Species      | Ht.  | S | SL<br>1.5 | N | S   | E   | W   | Cr.<br>Cl. | Ls | SC   | PG   | Comments/<br>Observation         | Preliminary<br>Management<br>Advice | LE    | Cal | RPA<br>m² | RPA<br>% |
|----------|--------------|------|---|-----------|---|-----|-----|-----|------------|----|------|------|----------------------------------|-------------------------------------|-------|-----|-----------|----------|
| T208     | Black pine   | 11.5 | 1 | 255       | 4 | 4   | 4   | 4   | 4          | M  | Good | Good | Forming screen and shelter belt. | No immediate works required.        | 40+   | B   | 80.4      | 5.1      |
| T209     | Black pine   | 12   | 1 | 350       | 4 | 4   | 4   | 4   | 4          | M  | Good | Good | -                                | No immediate works required.        | 40+   | B   | 55.4      | 4.2      |
| T210     | Black pine   | 6    | 1 | 223       | 2 | 2   | 2   | 2   | 2          | SM | Fair | Poor | In decline.                      | No immediate works required.        | 0-10  | C   | 22.5      | 2.7      |
| T211     | Holm Oak     | 5    | 1 | 200       | 4 | 1.5 | 2   | 5   | 1          | Y  | Fair | Fair | in decline                       | No immediate works required.        | 40+   | C   | 18.1      | 2.4      |
| T212     | Holm Oak     | 5    | 1 | 250       | 4 | 1   | 1.5 | 2.5 | 1          | SM | Fair | Fair | lean to the northeast            | No immediate works required.        | 20-40 | C   | 28.3      | 3        |
| T213     | Cabbage tree | 4.5  | 2 | 150 / 150 | 1 | 1   | 1   | 1   | 3          | SM | Good | Good | Severe lean to NE                | No immediate works required.        | 40+   | C   | 19.6      | 2.5      |
| T214     | Holm oak     | 4    | 1 | 200       | 3 | 3   | 1   | 1   | 0.5        | Y  | Fair | Fair | cabbage tree                     | No immediate works required.        | 20-40 | C   | 18.1      | 2.4      |
| T215     | Holm oak     | 3    | 1 | 100       | 1 | 1   | 1   | 1   | 0.5        | SM | Fair | Fair | severe lean to NE                | No immediate works required.        | 40+   | C   | 4.5       | 1.2      |

## Appendix 1: Schedule of Trees

| Tree No. | Species                                               | Ht. | S | SL 1.5    | N | S | E   | W | Cr. Cl. | Ls | SC   | PG   | Comments/ Observation     | Preliminary Management Advice | LE    | Cat | RPA m² | RPA / |
|----------|-------------------------------------------------------|-----|---|-----------|---|---|-----|---|---------|----|------|------|---------------------------|-------------------------------|-------|-----|--------|-------|
| T216     | Silverberry                                           | 4   | 2 | 150 / 150 | 3 | 2 | 0.5 | 3 | 1.5     | SM | Poor | Poor | forked stem at 0.4m       | No immediate works required.  | 40+   | C   | 19.6   | 2.5   |
| G1       | White poplar, field maple, holm oak, willow, sycamore | 0   | 0 | 0         | 5 | 5 | 5   | 5 | 0       | EM | Fair | Fair | Group 7 to 12m in height. | No immediate works required.  | 40+   | C   | 0      | 3.4   |
| G2       | Field maple, white poplar, white willow               | 0   | 0 | 0         | 5 | 5 | 5   | 5 | 0       | SM | Fair | Fair | Group 7 to 15m in height. | No immediate works required.  | 40+   | B   | 0      | 8.1   |
| G3       | White poplar, holm oak                                | 0   | 0 | 0         | 4 | 4 | 4   | 4 | 0       | M  | Fair | Fair | Group 8 to 12m in height. | No immediate works required.  | 40+   | B   | 0      | 3.8   |
| G4       | White willow, white poplar and field maple            | 0   | 0 | 0         | 4 | 4 | 4   | 4 | 0       | SM | Fair | Fair | Group 7 to 10m in height. | No immediate works required.  | 20-40 | B   | 0      | 4.8   |
| G5       | White willow, white poplar and field maple            | 0   | 0 | 0         | 4 | 4 | 4   | 4 | 0       | SM | Fair | Fair | Group 7 to 10m in height. | No immediate works required.  | 40+   | B   | 0      | 4.5   |
| G6       | Field maple, white poplar and sycamore                | 0   | 0 | 0         | 4 | 4 | 4   | 4 | 0       | Y  | Fair | Fair | Group 6 to 9m in height.  | No immediate works required.  | 40+   | C   | 0.0    | 9.6   |

## Appendix 1 BS: 5837 2012 Tree Quality Assessment Definitions

| TREES FOR REMOVAL                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Category & Definition                                                                                                                                                       | Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Identification on Plan |
| <b>Category U</b><br>Those in such a condition that they cannot realistically be retained as a living tree in the context of the current land use for longer than 10 years. | <ul style="list-style-type: none"> <li>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 U category trees (i.e. where for whatever reason the loss of companion shelter cannot be mitigated by pruning).</li> <li>Trees that are dead or are showing signs of significant immediate or irreversible overall decline.</li> <li>Trees infected with pathogens of significance to the health and or safety of other trees nearby by or very low quality trees suppressing adjacent trees of better quality.</li> </ul> | RED                    |

| TREES TO BE CONSIDERED FOR RETENTION                                                                             |                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                           |                                                                                                                                      |                        |
|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Category & Identification                                                                                        | 1 Mainly arboricultural values                                                                                                                                                                                                                  | 2 Mainly landscape values                                                                                                                                                                                                                                 | 3 Mainly cultural values including conservation                                                                                      | Identification on plan |
| <b>Category A</b><br>Trees of high quality with an estimated remaining life expectancy of at least 40 years.     | Trees that are of a particularly good example of their species, especially if rare or are unusual, or essential components of groups or of formal or semi-formal arboricultural features e.g. the dominant and/or principal trees in an avenue. | Tree groups or woodlands of particular visual importance as arboricultural and/or landscape features.                                                                                                                                                     | Tree groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood pasture). | GREEN                  |
| <b>Category B</b><br>Trees of moderate quality with an estimated remaining life expectancy of at least 20 years. | Trees that might be included in the high category but are downgraded because of impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage).                                        | Trees present in numbers, usually as groups or woodlands such that they 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 benefits.                                                                         | BLUE                   |

| TREES TO BE CONSIDERED FOR RETENTION                                                                                                                          |                                                                                                                    |                                                                                                                                                                                          |                                                                 |                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|------------------------|
| Category & Identification                                                                                                                                     | 1 Mainly arboricultural values                                                                                     | 2 Mainly landscape values                                                                                                                                                                | 3 Mainly cultural values including conservation                 | Identification on plan |
| <b>Category C</b><br>Trees of a low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm. | Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories. | Trees present in groups or woodlands but without this conferring on them significantly greater landscape value and/or trees offering low or only temporary/transient landscape benefits. | Trees with no material conservation or other cultural benefits. | GREY                   |

## Key to Appendix 1: Schedule of Trees

| Column Heading                   | Explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tree No</b>                   | Sequential number corresponding to number on plan.                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Species</b>                   | English and scientific names.                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Ht.</b>                       | Height in metres.                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>S</b>                         | Number of main stems.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>St. 1.5 (Stem Diameter)</b>   | Stem diameter when measured in accordance with Annex C of BS 5837:2012.                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>NSEW</b>                      | Crown radius in metres to cardinal points of the compass.                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Cr. Cl. (Crown Clearance)</b> | Height in metres between the ground and underside of canopy.                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>LS.</b>                       | Life stage definitions. Y= Young. S = Semi-mature. EM = Early mature. M = Mature. O = Over mature.                                                                                                                                                                                                                                                                                                                                                                          |
| <b>SC</b>                        | Brief description of structural condition.                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>PC</b>                        | Brief description of physiological condition.                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Preliminary Advice</b>        | Preliminary tree works advice and recommendations.                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>LE</b>                        | Estimated remaining useful life contribution in years: <10, 10+, 20+ and 40+ yr.                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Cat. (Category)</b>           | <p>Categorisation grading in accordance with BS 5837 2012.</p> <p>Trees suitable for retention: - Category A trees of high quality and amenity value. Category B trees of moderate quality and amenity value. Category C trees of low quality or amenity value.</p> <p>British Standards BS 5837 2012 recommends that these categories may be further broken down into sub categories A1 A2 A3 pertaining to Arboricultural, Landscape or Cultural values respectively.</p> |
| <b>RPA m<sup>2</sup></b>         | Root Protection Area (RPA). Indicative area around a tree measured in m <sup>2</sup> and calculated in accordance with Annex C of BS 5837 2012 deemed to contain sufficient rooting volume to maintain the viability of a tree and where the protection of roots and soil structure is treated as a priority.                                                                                                                                                               |
| <b>RPA r</b>                     | Root Protection Area (RPA) radius calculation centred on the base of the tree and calculated in accordance with Annex C of BS 5837 2012                                                                                                                                                                                                                                                                                                                                     |

## Glossary of Terms

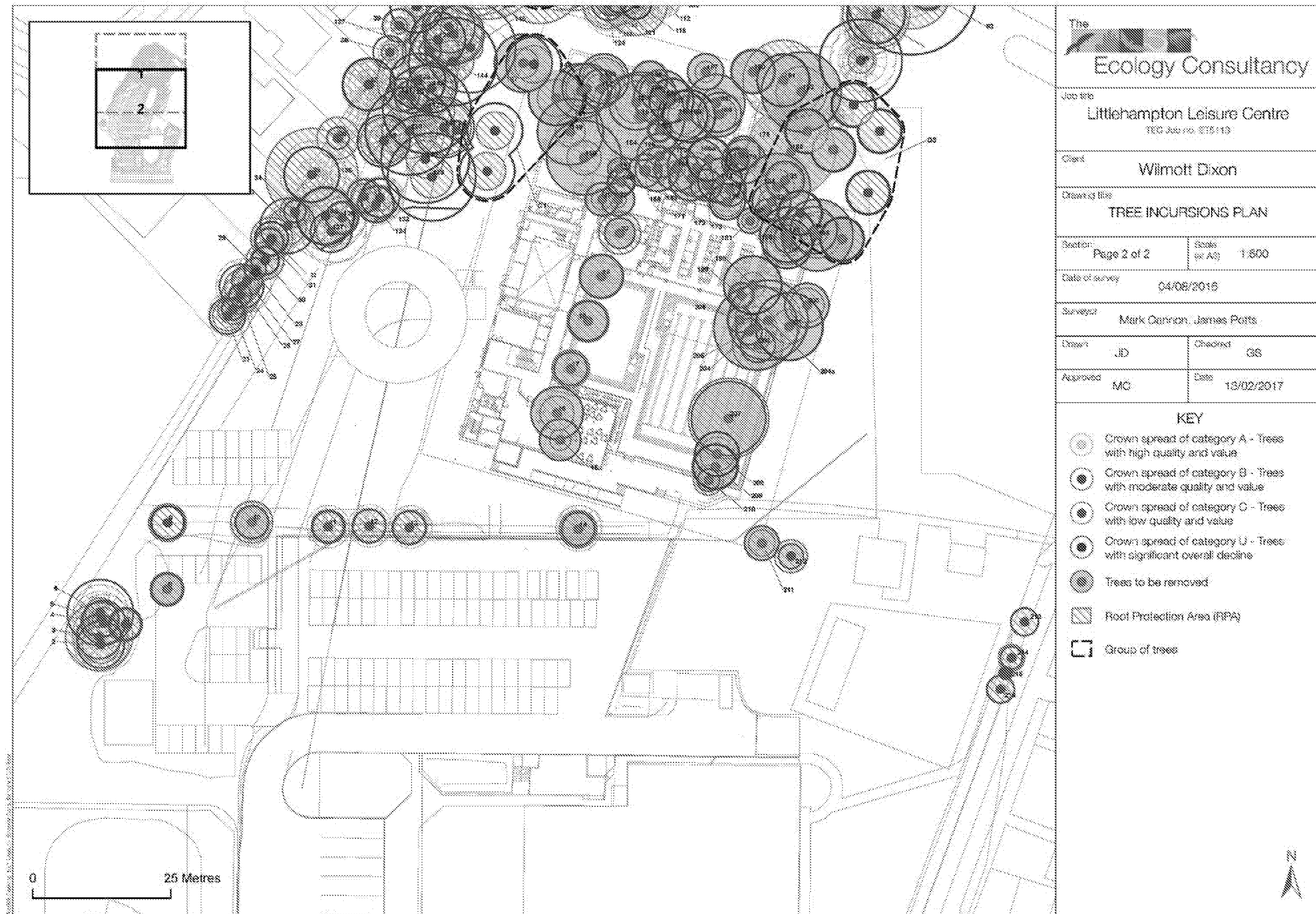
| Term                                          | Explanation                                                                                                                                                                           |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Arboricultural Impact Assessment (AIA)</b> | Evaluation of direct and indirect effects of a proposed design and/or construction.                                                                                                   |
| <b>Arboricultural Method Statement (AMS)</b>  | Methodology for the implementation of any aspect of development that is in the Root Protection Area or has the potential to result in the loss of or damage to a tree to be retained. |
| <b>Branch structure</b>                       | Qualitative description of formation of main framework of limbs and branches.                                                                                                         |
| <b>Canopy face</b>                            | Orientation of canopy relative to cardinal points of the compass                                                                                                                      |
| <b>Canopy radius</b>                          | A measurement taken from the centre of a tree to the furthest radial extension of tree canopy relative to the cardinal points of the compass.                                         |
| <b>Competent Person</b>                       | Person who has training and experience relevant to the matter being addressed and an understanding of the requirements of the particular task being approached.                       |
| <b>Conservation Area</b>                      | Local Planning Authority special designation generally prohibiting tree works without 6 weeks prior written notification.                                                             |
| <b>Construction Exclusion Zone (CEZ)</b>      | Area based upon the calculated Root Protection Area (see below) prohibiting access.                                                                                                   |
| <b>Cavity</b>                                 | Open and exposed aperture where wood tissue has internally degraded.                                                                                                                  |
| <b>Constraints check</b>                      | Formal search of local authority records to determine legal and statutory constraints on tree works.                                                                                  |
| <b>Crown reduction</b>                        | Pruning of a trees canopy in both height and width.                                                                                                                                   |
| <b>Decay</b>                                  | Deterioration and breakdown of tree wood fibres resulting in structural and/or physiological dysfunction of a tree.                                                                   |
| <b>Dieback</b>                                | Continual decline and death of wood tissue including twigs and branches.                                                                                                              |
| <b>Failure</b>                                | Description of structural failure or wood fibres including fracture of branches, limbs and main stems.                                                                                |
| <b>Fork</b>                                   | Area or point of union between one or more limbs or branches.                                                                                                                         |
| <b>Hazard Risk Assessment</b>                 | Qualitative and quantitative appraisal of the potential for tree failure and the possible risk of harm or damage to persons or property.                                              |
| <b>Local Planning Authority</b>               | Body responsible for the administration of Statutory duties relating to Development Management.                                                                                       |
| <b>Multi-stem</b>                             | A single tree formed from two or more co-dominant main stems                                                                                                                          |
| <b>Occlusion</b>                              | Wood development enclosing an extant wound or pruning cut.                                                                                                                            |
| <b>Pruning</b>                                | The targeted removal of branches or limbs using saws or other tools.                                                                                                                  |
| <b>Physiological Condition</b>                | Observation relating to a trees physiology for example vigour, leaf area, growth rate, the presence of pests or disease.                                                              |

## Glossary of Terms

| Term                                | Explanation                                                                                                                                |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Root Protection Area</b>         | Root Protection Area (RPA). Indicative area around a tree deemed to contain sufficient rooting volume to maintain the viability of a tree. |
| <b>Shelter belt</b>                 | A wind break normally made up of one or more trees planted in such a way to provide cover from the wind.                                   |
| <b>Structural Condition</b>         | Observation relating to a trees structural integrity and the presence of any physical defects.                                             |
| <b>Suppressed</b>                   | Where a trees development has been influenced or effected by the presence of competing vegetation.                                         |
| <b>Tree Constraints Plan</b>        | A scaled plan indicating above and below ground constraints relating to the protection of trees                                            |
| <b>Tree Preservation Order</b>      | A legal order made by the Local Planning Authority protecting specific trees in the interests of amenity.                                  |
| <b>Visual Tree Assessment (VTA)</b> | A method of assessment based upon the research developed to recognise dynamic responses of a tree to its surroundings.                     |

## Appendix 2: Tree Constraints Plan





## Appendix 3: Tree Protection Plan



The Ecology Consultancy

Job No  
Littlehampton Leisure Centre  
TED Job no. 278113

Drawn  
Wilmott Dixon

Drawing title  
TREE PROTECTION PLAN PLAN

Section  
Page 1 of 2

Scale  
(at A3) 1:800

Date of survey  
04/06/2015

Surveyor  
Mark Cannon, James Potts

Drawn  
JD

Checked  
BS

Approved  
MC

Date  
13/02/2017



The Ecology Consultancy

Job No  
Littlehampton Leisure Centre  
TED Job no. 278113

Drawn  
Wilmott Dixon

Drawing title  
TREE PROTECTION PLAN PLAN

Section  
Page 2 of 2

Scale  
(at A3) 1:800

Date of survey  
04/06/2015

Surveyor  
Mark Cannon, James Potts

Drawn  
JD

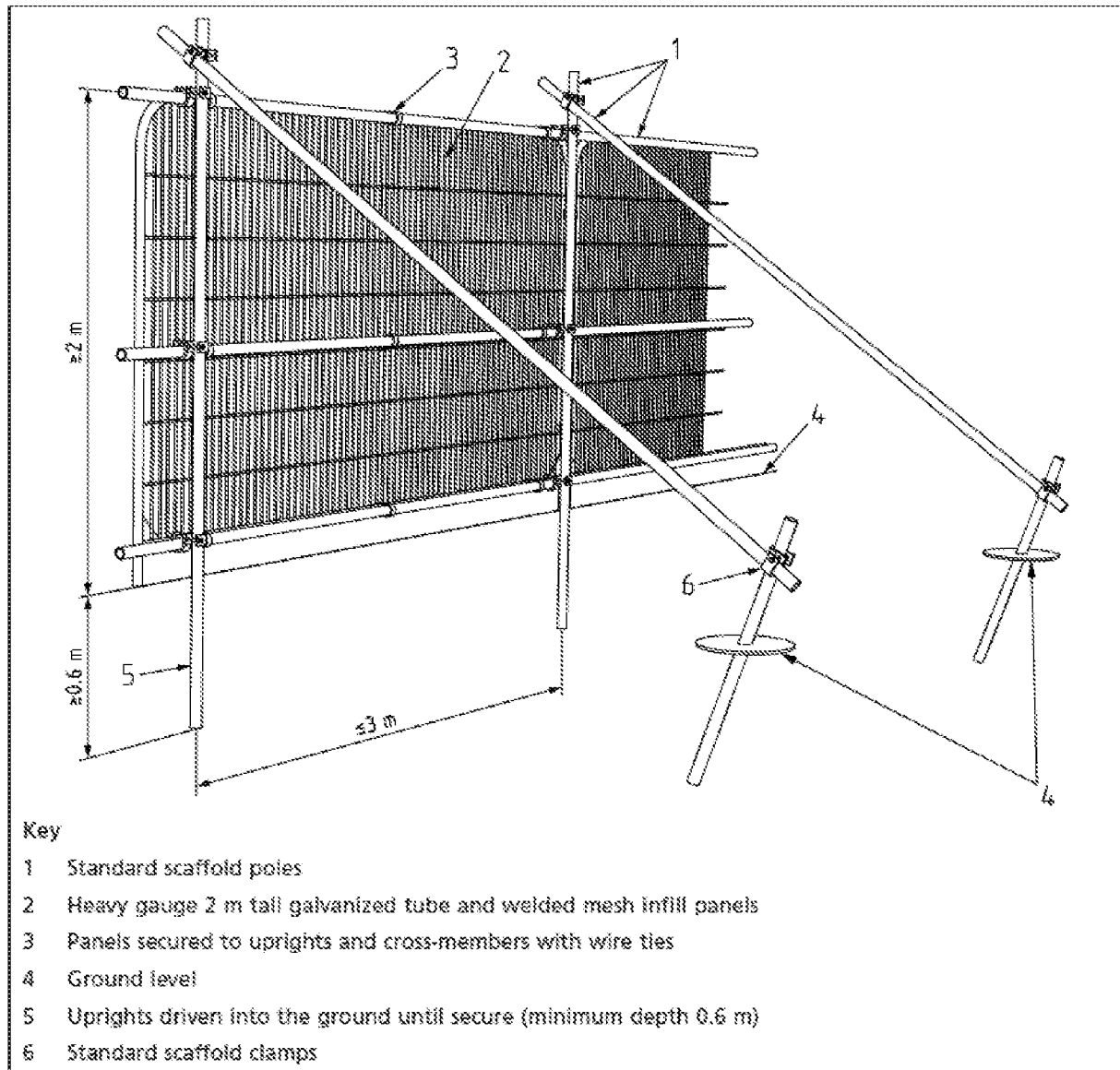
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BS

Approved  
MC

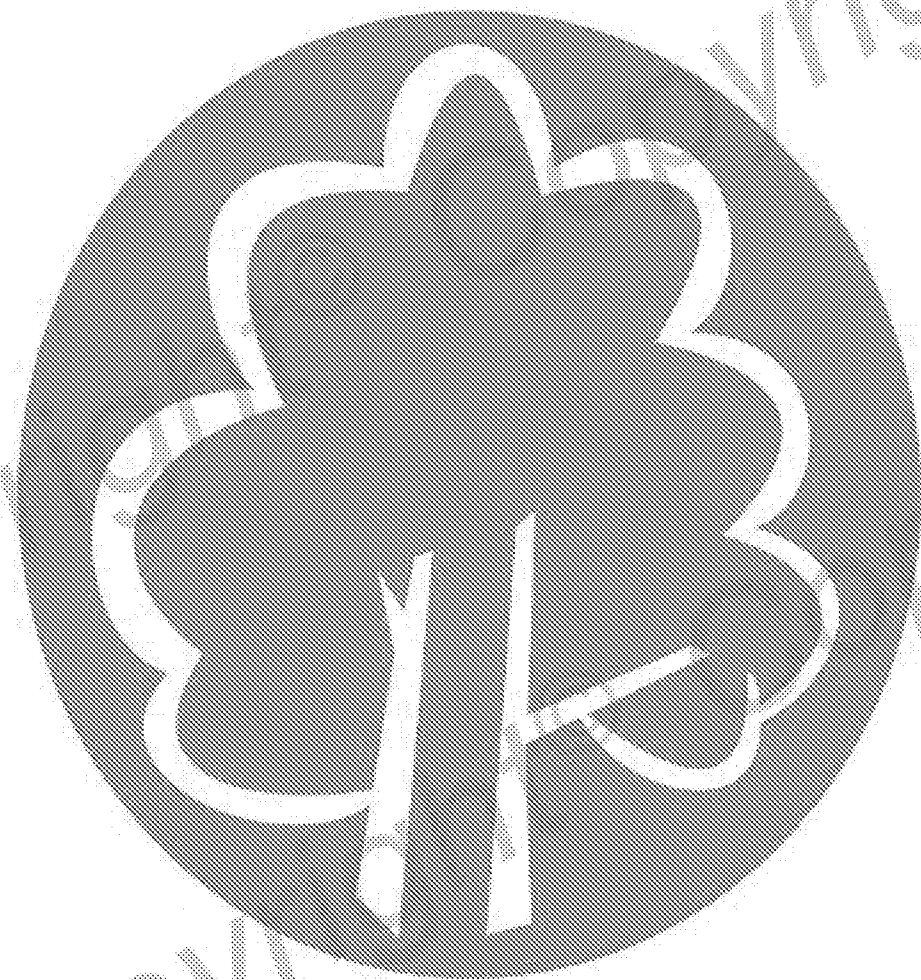
Date  
13/02/2017

## Appendix 4: Tree Protection Fencing

Figure 1. Default specification barrier (BS 5837:2012 figure 2)



## Appendix 5: Signage



**PROTECTIVE FENCING. THIS  
FENCING MUST BE  
MAINTAINED IN ACCORDANCE  
WITH THE APPROVED PLANS  
AND DRAWINGS FOR THIS  
DEVELOPMENT.**



**TREE PROTECTION AREA  
KEEP OUT !**

**(TOWN & COUNTRY PLANNING ACT 1990)**

**TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY  
PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A  
TREE PRESERVATION ORDER.**

**CONTRAVENTION OF A TREE PRESERVATION ORDER MAY  
LEAD TO CRIMINAL PROSECUTION**

**ANY INCURSION INTO THE PROTECTED AREA MUST BE  
WITH THE WRITTEN PERMISSION OF THE LOCAL  
PLANNING AUTHORITY**

## Appendix 6: Photographs

Photograph 1

View looking northwest towards black poplar T107, white willow T108, and field maples T104 to T106.



Photograph 2

View looking northeast along miniature railway, western edge of G1 on the right of the frame and holm oak T43 on the left.



Photograph 3

View looking south at the stem of goat willow T96.



Photograph 4

View looking west towards white willow T108, and black poplars T107, T109 and T115.



Photograph 5

View looking south towards black pines T11 to T13.



Photograph 6

View looking west towards sycamore T171.



Photograph 7

View looking north towards black poplar T92.



Photograph 8

View looking north towards Monterey cypress T207 and black pines T208 to T210.



Photograph 9

View looking south towards Norway maple T190 and black poplar T191.



Photograph 10

View looking west towards G3,  
black poplar T195 canopy visible  
behind.



Photograph 11

View looking southwest towards  
Monterey pine T207, black pines  
T208 to T210 far left, black poplar  
T203 central and goat willows  
T200 and T201.



Photograph 12

View looking north towards black  
poplars T100, T101 and G4.





Experience and quality that make a difference

London - Tempus Wharf, 33a Bermondsey Wall West, London, SE16 4TQ T