### Arboricultural Assessment Report

Profile Park NE

August 2022 Rev 2



#### **DOCUMENT CONTROL SHEET**

PROJECT NAME: Arboricultural Assessment - an assessment of trees in relation to

development.

**PROJECT REFERENCE: Profile Park NE** 

PROJECT LOCATION: Kilcarbery, Profile Park, Co. Dublin

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#### 1. INTRODUCTION

#### 1.1. Instructions and Brief

- 1.1.1. Tree-space has been instructed to undertake a tree survey and arboricultural impact assessment for a proposed new development. The proposed development site is located on semi-improved grassland south of the Grange Castle Business Park. The site is within the South Dublin County Council administrative area.
- 1.1.2. This report addresses the potential impacts of the proposed development on the existing tree population. The field assessment was completed between the 9<sup>th</sup> and 10<sup>th</sup> of August 2022. The following documents were provided to Tree-space to inform the tree survey and report:

Table 1: List of drawings to inform the tree survey and report

| Document Title              | Document/Drawing Number   | Originator |
|-----------------------------|---------------------------|------------|
| Extent of the tree survey   | Aerial image/no number    | Ramboll    |
| Topographical Survey        | MGS46847_T_2d_ITM_Rev0-00 | MGS        |
| Proposed Development Layout | No reference              | Ramboll    |

1.1.3. The report should be read in conjunction with the following Tree-space plans:

Tree Constraints Plans: TS\_TCP\_31\_8\_22

Tree Assessment Plans: TS\_TAP\_31\_8\_22

Tree Removal & Protection Plans: TS\_TPP\_3\_9\_22

#### 1.2. Aims and Approach

- 1.2.1. The purpose of this assessment is to quantify and categorise the arboricultural features on the site and assess the potential constraints to development. Trees are a material consideration for local authorities and tree owners. Whether they have statutory protection or not the potential impacts of construction must be considered. Construction activities often exert pressures on pre-existing trees and in some cases trees that have taken decades to mature can be damaged irreparably. The assessment and implementation of protection measures is therefore critical to mitigate against any potential negative impacts.
- 1.2.2. The arboricultural impact assessment was carried out in accordance with the British Standard BS 5837:2012 Trees in relation to design, demolition, and construction Recommendations<sup>1</sup>. The British Standard sets out the principles and procedures to be

<sup>&</sup>lt;sup>1</sup> The British Standards Institution (2012) *Trees in relation to design, demolition, and construction – Recommendations*. BSI Standards Limited.

applied to achieve a harmonious and sustainable relationship between trees and structures. The assessment process undertaken for this report is described in table two below.

**Table 2: Arboricultural Impact Assessment Process** 

| TASK                            | DESCRIPTION  |
|---------------------------------|--|
| Topographical survey            | Record the position of all trees within the site with a stem diameter of 75mm or more, measured at 1.5m above highest adjacent ground level.   |
| Tree survey                     | Collect relevant information on all trees included in the topographical survey, as well as any that might have been missed. The parameters of the tree survey are set out in BS5837:2012 section 4.4 and are described in more detail in Appendix 2 of this report.  |
| Tree<br>categorization          | Identify the quality and value of the existing tree population. The categorization method set out in table 1, BS5837:2012 allows informed decisions to be made concerning which trees should be removed or retained in the event of a development occurring. Category A trees are of a high quality, category B trees are of moderate quality, and category C trees are of a low quality. Category U trees are unsuitable for retention. The subcategories 1, 2 and 3 are intended to reflect arboricultural and landscape qualities, and cultural values, respectively. The tree quality assessment table is included in appendix 2 of this report. |
| Impact assessment               | Identify the requirements for the successful retention of the retained trees and detail the measures necessary for protection during the development process. Root protection areas (RPA's) are calculated in accordance with section 4.6, BS5837:2012. The RPA is the minimum area around a tree that needs to remain undisturbed to maintain the tree's viability. The RPAs of each categorised tree will be highlighted with magenta and plotted on relevant scaled drawings.   |
| Tree protection<br>plan         | The tree protection plan indicates the precise location of the protective barriers to be erected to form a construction exclusion zone around the retained trees. The plan will be superimposed on the layout plan, based on the topographical survey.   |
| Arboricultural method statement | The arboricultural method statement (AMS) sets out the measures required for the successful protection of the retained trees during the construction phase. The AMS will address some or all of the following: Pre-development tree works, site  |

| TASK | DESCRIPTION  |
|------|--|
|      | supervision, protective fencing, ground protection, boundary |
|      | treatments, services and drainage, and monitoring.           |

#### 1.3. The Limitations of the Report

- 1.3.1. Only those trees specified in the scope of work were assessed. The observations that were made are limited to the requirements of planning and development. The survey is not a tree risk assessment.
- 1.3.2. The trees were visually assessed from ground level only. No climbing inspections were carried out. No invasive or other detailed internal decay detection devices were used.
- 1.3.3. The conclusions relate to the conditions found at the time of survey. Trees are living organisms that are subject to the stresses of climatic extremes, decay fungi and injurious diseases. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the trees in question may not arise in the future.
- 1.3.4. Historic tree data from another tree survey report undertaken in 2021 has been included in this report. The tree reference numbers are: T0781 T0791, H1, T0826 T0837, H6, H7 & T0002. No liability of any kind is accepted for any omissions or inaccuracies in the tree survey information for the trees listed above.

#### THE DEVELOPMENT

#### 2.1. Description of the Development

- 2.1.1. Construction of 1 no. data hall building comprising of data hall rooms, mechanical and electrical galleries, ancillary office and storage rooms, toilets and shower and changing facilities.
- 2.1.2. External plant and emergency generators located South of the 1 no. data hall building.
- 2.1.3. The proposed development includes the provision of a: Sustainable Urban Drainage System.

#### 2.2. Spatial Scope

2.2.1. The tree survey targeted the trees established within the site extents and included on the topographical survey. The tree numbering begins on T1731 in the northeast corner of the site close to the entrance gate to Profile Park. The tree numbering continues in an anti-clockwise direction around the perimeter of the site finishing on T1774, outside the neighbouring dwelling house. Additionally, trees on adjacent lands to the

south and west of the main development site are referenced in the Tree-space tree survey schedule and plans. However, they were not included in the field assessment for this report.



Figure 1: Aerial image of the site and its immediate surroundings. The approximate boundary of the site is outlined in red. The entrance gate to Profile Park is located next to the roundabout on the R134. The existing dwelling house is hidden beneath the tree canopy in the northern portion of the site. The Baldonnel stream is orientated in an east-west direction and is hidden beneath the tree canopy along the southern boundary of the site. Image (Google Earth, 2021).

#### 3. THE TREES

#### 3.1. General Description of the Trees

3.1.1. In total 44 individual trees and 2 tree groups were included in the field assessment for this report. The total number of trees including the trees from the 2021 tree survey, and all of the individuals within the tree groups is 130. There is approximately 260 m of hedgerow within or in proximity to the site extents. Tree group 2 (TG2) is a linear feature containing 53 trees forming a natural boundary between the existing dwelling house, and the central green field site. The three most common species on the site are ash (*Fraxinus excelsior*), lime (*Tilia*), and horse chestnut (*Aesculus hippocastanum*) accounting for approximately 84% of the surveyed trees. Western Balsam-poplar (*Populus trichocarpa*) is also common as it comprises a large portion of tree group 2.

- The other most common species on the site were, monterey cypress (*Cupressus macrocarpa*), and hawthorn (*Crataegus monogyna*).
- 3.1.2. Thirty three percent of the surveyed trees were classified as category A. Category A trees are of a high quality with a remaining life expectancy of at least 40 years. The limes established on the embankment running parallel to the access road to Profile Park were all classified as category A. The lime trees are in the semi-mature life-stage and generally have good structural condition. The leaf area and vigour were classified as normal for the life-stage. The horse-chestnut and ash trees are established in the riparian zone along the Baldonnel stream. The horse-chestnuts have leaf blotch (*Guignardia aesculi*) which is a leaf killing fungus. The condition is unsightly, but it is not known to kill the trees. The trees along the stream were classified as category B or C based on their physiological or structural defects. The atlas cedar T1773 (*Cedrus atlantica*) is established at the entrance to the dwelling house. The tree is a good example of its species and was classified as A1.
- 3.1.3. Tree group 2 is a mature tree line established along the western boundary of the site. The tree line is a mix of poplars and Monterey cypress. The trees within the group generally have a moderate structural condition and a normal physiological condition for their life-stage.

#### 4. ARBORICULTURAL IMPACT ASSESSMENT

#### 4.1. Potential Tree Loss to Facilitate the Proposed Development

4.1.1. Table 3 below describes the trees and hedges that would be directly affected in the event of a development occurring. The tree number, the tree species, the BS5837 retention category and a short description of the impact are included.

**Table 3:** Description of the potential impacts of the proposed development on the surveyed tree population.

| Tree No  | Tree Species   | <b>CAT</b> <i>BS5837</i> | Description of Impact              |
|----------|----------------|--------------------------|------------------------------------|
| T1752-   | Ash            | B2                       | Three trees in conflict with the   |
| T1753 (3 | Rowan          |                          | proposed culvert and road over the |
| x trees) | Horse chestnut |                          | Baldonnel stream.                  |
| T1754-   | Horse chestnut | C2                       | Three trees in conflict with the   |
| T1756 (3 |                |                          | proposed culvert and road over the |
| x trees  |                |                          | Baldonnel stream.                  |

| Tree No                        | Tree Species  | CAT<br>BS5837 | Description of Impact   |
|--------------------------------|---|---------------|---|
| T1757                          | Ash   | B2            | One tree in conflict with the proposed culvert and road over the Baldonnel stream.  |
| T0786-<br>T0791 (6<br>x trees) | Ash<br>Goat willow  | C1            | Three trees in direct conflict with the proposed access road and southern attenuation pond. Three trees removed for DUB 11/12 development - planning reference SD21A/0241.                    |
| H1                             | Hawthorn, Bramble,<br>Dogrose, Goat Willow,<br>Elm, Ash.                            | C1            | 50% of hedge 1 is in direct conflict with<br>the proposed access road and southern<br>attenuation pond. Other 50% is<br>removed for DUB 11/12 development -<br>planning reference SD21A/0241. |
| T0836                          | Ash   | B1            | Partial conflict with the proposed access road and turning circle. Successful retention is highly unlikely.   |
| T0837                          | Ash   | C1            | Partial conflict with proposed access road. Successful retention is highly unlikely.  |
| T0002                          | Ash   | C1            | Direct conflict with proposed access road and turning area.   |
| H7                             | Hawthorn, elder, elm,<br>bramble, dogrose, ash.                                     | C2            | Approximately 50 m (36%) of hedge 7 is in direct conflict with the proposed access road and turning area.   |
| T1769-<br>T1771 (3<br>x trees) | Monterey Cypress  | B2            | Three trees in direct conflict with the proposed data hall layout.  |
| TG1 (9 x<br>trees)             | Monterey Cypress,<br>Western balsam<br>popular, Sycamore,<br>Lawson cypress, Apple. | C2            | Nine trees in direct conflict with the proposed data hall layout.   |
| T1774                          | Ash   | B2            | Direct conflict with the western attenuation pond and the proposed access road.   |
| TG2 (45 x trees)               | Monterey cypress,<br>Western balsam<br>popular, Silver birch,<br>Copper beech       | B2            | Forty-five trees in direct conflict with the proposed data hall layout.   |
| T0827                          | Ash   | U             | Not suitable for retention.   |

| Tree No                         | Tree Species | <b>CAT</b> <i>BS5837</i> | Description of Impact  |
|---------------------------------|--------------|--------------------------|--|
| T0828 &<br>T0829 (2<br>x trees) | Ash          | C1                       | Removed for DUB 11/12 development - planning reference SD21A/0241. |
| T0831 &<br>T0835 (2<br>x trees) | Ash          | C1                       | Removed for DUB 11/12 development - planning reference SD21A/0241. |

#### **Summary of Direct Impacts**

- In total 79 trees or 60% of the total surveyed tree population will need to be removed to facilitate the construction of the proposed development.
- · In total 98 m of hedgerow or 37% of the total surveyed hedges will need to be removed to facilitate the construction of the proposed development.
- 54 category B trees (75% of the total CAT B), 24 category C (68% of the total CAT C) and 1 category U (100% category U) will need to be removed to facilitate the construction of the proposed development.

#### 4.2. Potential Tree Pruning Works

4.2.1. The lime trees numbered T1731 to T1748 are established adjacent to an existing footpath. The lower branches of the trees overhang the footpath and there is currently insufficient headroom for pedestrians and cyclists. It is recommended that the crowns are raised to improve the headroom to approximately 2.5 m above the pavement level.

#### 4.3. Construction Activities & The Retained Trees

- 4.3.1. In total 51 individual trees and approximately 162 m of hedgerow will be retained within the perimeter of the development site. All of the retained vegetation has the potential to be negatively impacted upon during the construction phase. To mitigate against any potential negative impacts the installation of tree protection fencing around the retained trees and hedges has been recommended. An image of the default fencing specification is provided in the arboricultural method statement in Appendix 1 of this report. The alignment of the tree protection fencing should resemble what is detailed in the Tree Removal & Protection drawings.
- 4.3.2. The root protection areas for the recorded tree population have been highlighted with magenta on the Tree Removal & Protection Plans. The root protection area (RPA) is the area around the tree which needs to remain undisturbed to maintain the trees viability. The tree protection fencing should be in place before the construction activities commence. The onsite storage of materials and all plant and machinery movements should be directed outside of the RPAs. The main contractor appointed to

- construct the development will have a responsibility to ensure the tree protection measures are installed correctly, and none of the retained trees are negatively impacted upon.
- 4.3.3. There are 10 trees highlighted for retention next to the entrance to the existing dwelling house. Eight of these trees are the remainder of tree group 2 and two (T1772 & T1773) are established on the left and right of the driveway. Tree number 1773 is a category A1 and a high-quality landscape feature. The existing wall, driveway and fence line intersect the RPAs of the retained trees. The area within the RPAs should remain undisturbed as much as possible. If the existing built features within the RPAs need to be removed ideally it should be carried out manually using hand tools e.g., pneumatic breaker, sledgehammers, and wheelbarrow. If it is necessary to use machinery it should be light weight, 3 tonnes or less. The machinery should be positioned outside of the RPAs or on existing hard surfaces. Long reach machinery is preferred. The machinery should not encroach onto existing soft surfaces e.g., grass, bare soil within the RPA. Any scraping or excavations of the surfaces within the RPAs should not exceed 50 mm in depth. Further guidance from a consulting arborist may be required if the existing surfaces within the RPAs are to be replaced.

#### 4.4. Tree Management Post Development

4.4.1. There are a number of mature trees highlighted for retention within the extent of the development site. New built structures e.g., access roads, buildings, data halls are to be introduced in proximity to the retained trees. Prior to public usage of the site an arboricultural assessment of the retained trees is recommended. The eight retained trees from tree group 2 (TG2) are of particular interest. The removal of their companion trees to the south and the dwelling house to the west will result in an altered exposure to the prevailing wind currents. Retained trees can become much more vulnerable to windthrow after surrounding trees and structures have been removed. The crowns of the retained trees may need to be reduced in size to reduce the wind loading effect and the risk of failure.

#### 4.5. Replacement Tree Planting

4.5.1. The landscape proposals will need to consider the tree and hedgerow loss on the site. Seventy-nine trees and approximately 98 m of hedgerow will need to be removed. Appropriate compensation should consider establishing 120 - 150 new trees on the site. The riparian zone around the Baldonnel stream could be extended with a linear strip of woodland potentially creating a wildlife corridor. The line of lime trees could be extended to the south and west along Profile Park Road and Concorde Drive respectively. Some ash trees are highlighted for removal; however, the planting of ash trees is currently not recommended due to the spread of ash dieback (*Hymenoscyphus fraxineus*). Instead, the establishment of long-lived broadleaf species e.g., oak, beech,

- sweet chestnut, hornbeam should be considered for replanting. Adequate spacing between the trees is recommended to allow for future crown development.
- 4.5.2. Compensation measures for the loss of hedgerow will need to be integrated into the new development. There is an existing hedgerow on the northern boundary with New Nangor Road. The hedgerow could be extended along the roadside boundary. New hedges could also be considered around the perimeter of the attenuation ponds. Other spaces for hedgerow establishment may become apparent at the detailed design stage of the project.

#### CONCLUSIONS

- The potential tree loss to facilitate the proposed development is significant, 60% of the surveyed tree population will need to be removed. However, all of the high-quality category A trees can be retained.
- There is a significant impact on the category B trees, predominately from tree group 2. The landscape proposal will need to include adequate replacement tree planting.
- Some hedgerow loss is necessary, the length of hedgerow being removed should be replaced.
- The contractor in charge of constructing the development will have a responsibility to ensure the tree protection measures are installed correctly and no further negative impacts occur.
- The arboricultural method statement in Appendix 1 of this report provides outline guidance on the following: pre-construction site briefing, preconstruction tree works, tree protection fencing, excavations within the RPAs, roots & root pruning, monitoring & compliance, and landscaping activities. Further construction stage arboricultural method statements may be required.

# Appendix 1

#### **Outline Arboricultural Method Statement**

The following arboricultural method statement outlines the order of works and tree protection measures for the proposed Profile Park NE data hall development. The method statement should be read in conjunction with the Tree Removal & Protection Plans (TS TPP 3 9 22).

#### **Pre-Construction Site Briefing**

- Prior to the construction phase of the development a briefing should be arranged between the principal contractor and the appointed consulting arborist. The objectives of the briefing will be to clarify the following:
  - Confirm the tree works to be undertaken.
  - o Confirm the location of the tree protection fencing.
  - Review and raise awareness of sensitive areas on the site where mature trees and hedges are being retained.
  - Confirm the requirements for arboricultural monitoring for the duration of the construction phase.

#### **Pre-Construction Tree Works**

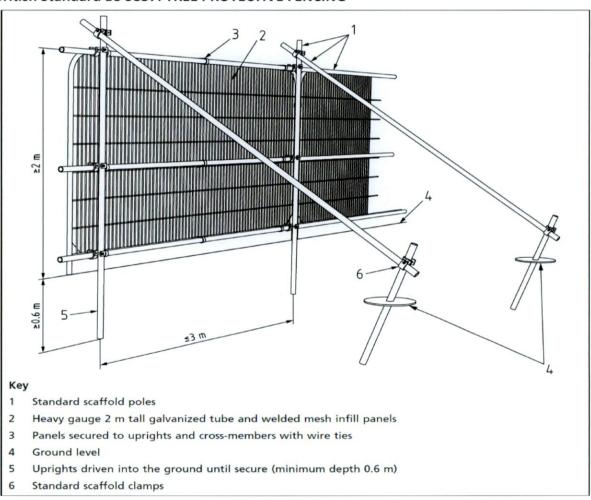
- The necessary tree works to facilitate the proposed development are described in the tree works schedule (appendix 4 of this report).
- The tree works schedule should be presented to the tree owner prior to any work being carried out. The tree owner must agree to the proposed works.
- All tree works will be carried out in accordance with the recommendations given in BS 3998 (2010) and current health & safety requirements.
- The planned removal of trees and vegetation should not negatively impact on any of the retained trees or their RPAs.
- Prior to the commencement of any tree works, the trees and their surroundings should be assessed for the presence of any seasonal nesting sites, potential roost features or protected species.
- In accordance with Section 40 of the Wildlife Act 1976 (as amended 2000) the tree works, and removal of hedges and ivy should be scheduled outside of the nesting season (1st of March to 31st of August).

#### **Protective Fencing**

- The tree protection fencing is designed to create a construction exclusion zone around the retained trees to protect the critical root mass from negative impacts.
- The alignment of the tree protection fencing largely follows the perimeter of the retained trees RPAs. Along the hedgerows the fencing should be set out 1 m from the outer edge of the canopy extents. The layout of the fencing should resemble what is detailed in the tree protection plans (TS\_TPP\_3\_9\_22).

- The tree protection fencing should be fit for purpose and well braced to resist impacts. The default fencing specification outlined in the British Standard is 2 m tall weld mesh panels. An image of the fencing configuration is provided below.
- Signs will be erected on the fences stating 'CONSTRUCTION EXCLUSION ZONE NO ACCESS'.
- The main contractor will inform the client that the tree protection fencing, and signage is in place before construction activities commence.
- The tree protection fencing will remain in place for the duration of the construction phase and should not be removed without approval from the retained consulting arborist.

#### **British Standard BS 5837: TREE PROTECTIVE FENCING**



#### **Excavations within the Root Protection Areas (RPAs)**

- Excavation work within the RPAs of retained trees should be avoided.
- Where excavation work of hard surfaces is necessary it should be carried out with hand tools e.g., pneumatic breaker, crowbar, pick, mattock, spade.

- Excavations of soft surfaces or sub-bases can be undertaken with air spades or smaller hand tools e.g., trowels.
- The area to be excavated should be clearly marked out on the ground.
- The spoil arising from the excavation should be positioned outside of the RPA.
- Avoid damaging the bark of any exposed roots.

#### **Roots & Root Pruning**

- Where tree roots are encountered after ground works begin it is recommended that rolls of hessian/jute are stored on site. The hessian can be used to cover any exposed roots and protect them from drying out and desiccation occurring.
- Where tree roots are encountered in the working areas and cannot be moved out of the construction profile root pruning may be required (see guidance point below). The roots should be target pruned with a sharp secateurs or handsaw. Once pruning is complete the cut ends should be recovered with topsoil or hessian.
- General guidance: if the exposed tree roots are less than 25 mm in diameter, they can be pruned by the on-site construction staff. If the tree roots are greater than 25 mm in diameter advice should be sought from the retained consulting arborist.

#### **Monitoring & Compliance**

- It is recommended that a qualified consulting arborist is assigned to the project for the duration of the construction phase.
- The responsibilities of the assigned arborist will include:
  - Monthly checks on the tree protective fencing.
  - Monitoring the health and vitality of the retained trees.
  - Monitoring soil disturbance and root disturbance in the working areas.
  - Carry out any potential root pruning operations if necessary.

#### Landscaping

- The proposed landscape activities e.g., planting works, tree planting, installation of new hard surfaces should be directed outside of the RPAs of any retained trees.
- The landscaping contractor should be briefed in detail by the retained consulting arborist to highlight the extent of the RPAs of any retained trees.
- No heavy mechanical cultivation such as ploughing or rotavation should occur within the RPAs of the retained trees.
- No soil level changes should occur within the RPA of any retained trees. Soil should never be raised and heaped against the tree trunks.
- Compaction of the soil within and around the RPAs of retained trees should be avoided.

## Appendix 2

#### **Tree Schedule Key**

Tree/Group number Reference number for individual trees or groups of trees, prefixed by T

(Tree), TG (Tree Group), W (Woodland), H (Hedge) or S (Shrub) to indicate

the type of feature

**Tree Count** Number of trees of a particular species recorded within a group feature,

with the default value of 1 for single trees.

**Species** Scientific name followed by common name

Height (m) Tree height to the nearest metre, measured with a Haglofs Clinometer or

estimated.

Stem Count Number of stems. Stem count indicates whether the tree is single-stemmed

or multi-stemmed and informs the RPA calculation.

Stem Diameter Stem diameter measured at 1.5m above ground level in accordance with

Annex C of BS5837:2012.

**Crown Spread** Distance from the stem position to the crown periphery in the four cardinal

directions.

**First Significant** Branch Height (m) -Direction of growth

Distance between the ground and lowest significant branch and the

direction of growth.

**Canopy Clearance** 

Height (m)

Distance between the ground and the lowest point of the crown periphery,

estimated to the nearest half metre.

Life-stage Young, Semi-mature, Early-mature, Mature, Late Mature, Ancient or Veteran

**Physiological** 

Condition

Good, Normal, Fair, Poor, Dead

**Observations** General description of the tree or tree group, including basic features and

morphology, structural and physiological condition, growing conditions and

surroundings.

Recommendations Management recommendations for tree works to address immediate

unacceptable risks, or to facilitate development proposals.

**Estimated Remaining** Contribution (years)

Estimated number of years for which the tree will continue to make a positive contribution to the site, banded as <10yrs, 10-20yrs, 20-40yrs, 40+.

**Retention Category** Quality and value category as defined in table 1 of BS5837:2012 (see

following page for full description)

**Retention Sub-**

category

One or more sub-categories as defined in table 1 of BS5837:2012 (see

following page for full description)

RPR (m)

Radius of the RPA, in metres, when this is plotted as a circle around the tree stem  $\,$ 

RPA (m³)

Root protection area calculated from the stem diameter according to the formula in BS5837:2012. The RPA is the minimum area required to maintain tree viability.

Table 1 Cascade chart for tree quality assessment

| Category U rese treation (see Note)  These in such a condition in the contact of the category U trees feet and a serious, irremediable, structural defect, such that their earny loss is expected due to collapse, including those that will become unable after removal of other category U trees (e.g. where, for whatever reson the contact of the current in contact of the contact of the current in current in contact of the current in c | Category and definition                                      | Criteria (including subcategories where appropriate)   | appropriate)   |  | Identification<br>on plan |
|--|--|--|--|--|---------------------------|
| • 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 emoval of other caregory U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be migrated by pruning)  • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline quality trees suppressing adjacent trees of better quality MOTE Category U trees on have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.  1 Mainly arboricultural qualities  2 Mainly landscape qualities  2 Mainly landscape qualities  3 Mainly cultural values, including conservation or search of groups or woodlands of particular or formal or semi-formal aboricultural aboricultural andor paresence of significant though an areance)  Trees that might be included in a recent of significant though an areance)  Trees that might be included in a recent of significant though an areance)  Trees that might be included in a recent of significant though an areance or significant that they are areance or significant though an  | Trees unsuitable for retention                               | (see Note)   |  |  |                           |
| Trees that are dead or are showing signs of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality  NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.  1 Mainly arboricultural qualities  1 Mainly arboricultural qualities  2 Mainly landscape qualities  2 Mainly landscape qualities  3 Mainly conservation  Trees, groups or woodlands of particular or servation  Trees, that are particularly good examples of their species, especially if visual importance as arboricultural and/or rare or unusual; or those that are examples of their species, especially if visual importance as arboricultural and/or rare or unusual; or those that are particularly groups or woodlands, such that they because of impaired condition (e.g. present in numbers, usually growing trees within an avenue)  Trees that are downgraded as groups or woodlands, such that they are or impaired condition (e.g. present in quality to be suitable for retention for beyond 40 years; or trees lacking the peaces of without they do not quality in higher categories significant they are or softening on them merit or such impaired condition that is not or   | Category U Those in such a condition                         | <ul> <li>Trees that have a serious, irremedial<br/>including those that will become un<br/>reason, the loss of companion shelte</li> </ul> | ole, structural defect, such that their early loss viable after removal of other category U trees it cannot be mitigated by pruning) | is expected due to collapse, (e.g. where, for whatever | See Table 2               |
| • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality  NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.  1 Mainly arboricultural qualities  2 Mainly landscape qualities  2 Mainly landscape qualities  2 Mainly landscape qualities  3 Mainly cultural values, including conservation  Trees that are particularly good resental components of groups or unswal; or those that are conversation are or unusual; or those that are conversation or essential components of groups or university to those that are particularly good principal trees within an avenue)  Trees that might consortulural deatures (a.g. the dominant and/or principal trees within an avenue)  Trees present in numbers, usually growing rees with material as groups or woodlands, such that they are downgraded because of impaired condition for beyond 40 years; or trees lacking the special quality recessary to merit the special quality recessary to merit the group or or defering low or only they do not qualify in higher categories.   | be retained as living trees in                               | <ul> <li>Trees that are dead or are showing :</li> </ul>   | signs of significant, immediate, and irreversible  | e overall decline                                      |                           |
| MoTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.57.  1 Mainly arboricultural qualities  Trees that are particularly good examples of their species, especially if visual importance as arboricultural and/or rare or unusual; or those that are easential components of groups or principal trees within an avenue)  Trees that might be included in category A but are downgraded as groups or woodlands, such that they are remediable defects, including as collectives but situated so as to make little unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality in higher categories without an experiment of the yon or quality in higher categories.   | the context of the current land use for longer than 10 years | <ul> <li>Trees infected with pathogens of sig<br/>quality trees suppressing adjacent tr</li> </ul>   | inificance to the health and/or safety of other ees of better quality  | trees nearby, or very low                              |                           |
| Trees that are particularly good Trees, groups or woodlands of particular rare or unusual; or those that are essential components of their species, especially if eatures (e.g. the dominant and/or principal trees within an avenue) Trees that might be included in a sproups or woodlands, such that they are rendiable defects, including unsympathetic past management and system danage), such that they are unlikely to be suitable for retention for beyond 40 years; of trees lacking the special quality in higher categoryes.  The standard in a particular of significant conservation, and or semi-formal and/or principal trees within an avenue)  Trees, groups or woodlands of isignificant conservation, historical, commemorative or other value (e.g. veteran or the value (e.g. veteran or the value (e.g. veteran or the value)  Trees, groups or woodlands, such that they are a downgraded as groups or woodlands, such that they are unlikely to be suitable for retention for beyond 40 years; of trees lacking the special quality in higher categories significantly greater collective landscape with in paired condition that without this conferring on or other special quality in higher categories significantly greater collective landscape cultural value  Trees, groups or woodlands, such that they are unlikely to be suitable for retention for beyond 40 years; of trees lacking the special quality in higher categories significantly greater collective landscape cultural value  Unremarkable trees of very limited without this conferring on them exit or such impaired condition that without this conferring on or only they do not qualify in higher categories significantly greater collective landscape cultural value condition that when they do not qualify in higher categories significantly greater collective landscape cultural value condition that when the condition that they are collective landscape cultural value condition that when the condition or other value.   |  | NOTE Category U trees can have existin see 4.5.7.  | ig or potential conservation value which it mig  | tht be desirable to preserve;                          |                           |
| Trees that are particularly good examples of their species, especially if visual importance as arboricultural and/or rare or unusual; or those that are essential components of groups or moodlands or trees within an avenue)  Trees that might be included in category A, but are downgraded arbecause of impaired condition (e.g. presence of significant though canniferly to be suitable for retention for beyond 40 years; or trees lacking the stored quality necessary to merit they do not qualify in higher categories.  |  | 1 Mainly arboricultural qualities  | 2 Mainly landscape qualities   | 3 Mainly cultural values, including conservation       |                           |
| Trees that are particularly good examples of their species, especially if rare camples of their species, especially if visual importance as arboricultural and/or rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)  Trees that might be included in a series of impaired condition (e.g. present or significant though category A, but are downgraded a series of impaired condition (e.g. presence of significant though category A, but are downgraded in a series or significant though category A, but are downgraded in a series or significant though category A, but are downgraded in a series or significant though category A, but are downgraded in a streat a higher collective rating than they presence of significant though category A, but are downgraded in a streat a higher collective rating than they presence of significant though category A, but are downgraded in a streat a higher collective rating than they presence of significant though category A, but are downgraded in a streat a higher collective rating than they presence of significant though category A, but are downgraded in a streat a higher collective rating than they presence of significant though category A, but are downgraded in a streat a higher collective rating than they present an individuals; or trees occurring as new they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation  Unremarkable trees of very limited with a without this conferring on them categories significantly greater collective landscape benefits  Trees present in numbers, usually growing or woodlands, but are downgraded in a significant collective landscape benefits  Trees groups or woodlands or verteran trees of groups or woodlands, such that they are unitive or   | Trees to be considered for rete                              | ention   |  |  |                           |
| examples of their specially if visual importance as arboricultural and/or historical, commemorative or essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)  Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though condition that they are no significant though storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation  Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories significantly large are or only a seminary and on qualify in higher categories with might are or an area or an area or a semination for beyond 40 years; or trees lacking the category A designation  Unremarkable trees of very limited merit or such impaired condition that they are or they do not qualify in higher categories with material as groups or woodlands, but are downgraded area or very limited merit or such impaired condition that they do not qualify in higher categories with material as groups or woodlands, but are such impaired condition that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the categories significantly for special quality necessary to merit the categories significantly for service in a property and the categories significantly for services benefits are or very limited merit or such impaired condition that they are some first or such impaired condition that they are conservation or other significantly greater collective landscape cultural value cu | Category A   | Trees that are particularly good   | Trees, groups or woodlands of particular   | Trees, groups or woodlands                             | See Table 2               |
| features (e.g. the dominant and/or principal trees within an avenue)  Trees that might be included in category A, but are downgraded condition (e.g. presence of significant though caregory A, but are advangement and some of significant though caregory A, but are advangement and some of significant though category A, but are downigraded in as groups or woodlands, such that they a action of the wider locality as individuals, or trees of very limited in without this conferring on them merit or such impaired condition that without this conferring on them and or recessary to merit the category A designation  Unremarkable trees of very limited without this conferring on them categories and or recessary to merit they do not qualify in higher categories.   | Trees of high quality with an                                | examples of their species, especially if   | visual importance as arboricultural and/or   | of significant conservation,                           |                           |
| features (e.g. the dominant and/or principal trees within an avenue)  Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though unsympathetic past management and amage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation  Unremarkable trees of very limited merit or such impaired condition that without this conferring on them merit or such impaired condition that they do not qualify in higher categories  Trees present in numbers, usually growing reses with material conservation or other attact a higher callective rating than they concurring as collectives but situated so as to make little visual contribution to the wider locality storm damage), such that they are category A designation  Trees present in numbers, usually growing Trees with material as groups or woodlands; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality as might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality as magnement and amage, such that they are category A designation  Unremarkable trees of very limited without this conferring on them conservation or other significantly greater collective landscape cultural value and/or trees offening low or only temporary/transient landscape benefits   | estimated remaining life                                     | essential components of groups or  | ימומארם ובמוחובא   | other value (e.g. veteran                              |                           |
| Frees that might be included in category A, but are downgraded because of impaired condition (e.g. present in numbers, usually growing a groups or woodlands, such that they because of significant though category A but are downgraded as groups or woodlands, such that they are an anagement and storm damage), such that they are uniskly to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation  Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories walue; and/or trees offerting low or only tensory and the special quality in higher categories walue; and/or trees offerting low or only tensory and the special quality in higher categories walue; and/or trees offerting low or only tensory and the special quality in higher categories walue; and/or trees offerting low or only tensory and the special quality in higher categories walue; and the special quality in higher categories walue; and the special quality in higher categories with an average of the special quality in higher categories with a significantly greater collective landscape and the special quality in higher categories walue; and the special quality in higher categories walue; and the special quality in higher categories was the special quality in higher categories with a significantly greater collective landscape and the special quality in higher categories with a significantly greater collective landscape and the special quality in higher categories with a significantly greater collective landscape and the special quality in higher categories with a significantly greater collective landscape and the special quality in the special quality and t | expectancy of at least                                       | formal or semi-formal arboricultural   |  | trees or wood-pasture)                                 |                           |
| Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though caregory A, but are downgraded because of impaired condition (e.g. presence of significant though caregory A but are downgraded and an anagement and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation  Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories significantly greater collective landscape benefits  |  | features (e.g. the dominant and/or principal trees within an avenue)   |  |  |                           |
| because of impaired condition (e.g. presence of significant though category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including storm damagely, such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation  Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories value; and/or trees offering low or only temporary/transient landscape benefits   | Category B   | Trees that might be included in  | Trees present in numbers, usually growing  | Trees with material                                    | See Table 2               |
| presence of single defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation  Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories  might as individuals; or trees or make little visual contribution to the wider locality but storm as individuals; or trees as to make little visual contribution to the wider locality as a to make little visual contribution to the wider locality as to material and scape benefits  Trees present in groups or woodlands, but rees with no material conservation or other significantly greater collective landscape cultural value value; and/or trees offering low or only temporary/transient landscape benefits  | Trees of moderate quality                                    | category A, but are downgraded because of impaired condition (e.g.   | as groups or woodlands, such that they attract a higher collective rating than they  | conservation or other                                  |                           |
| unsympathetic past management and storm damage), such that they are storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation  Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories with  | with an estimated remaining                                  | presence of significant though   | might as individuals; or trees occurring as  |  |                           |
| unisympathetic past management and visual contribution to the wider locality storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation  Unremarkable trees of very limited Trees present in groups or woodlands, but Trees with no material merit or such impaired condition that without this conferring on them conservation or other significantly greater collective landscape to the cultural value value; and/or trees offering low or only temporary/transient landscape benefits   | 20 years   | remediable defects, including  | collectives but situated so as to make little  |  |                           |
| unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation  Unremarkable trees of very limited without this conferring on them conservation or other they do not qualify in higher categories significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits  |  | unsympathetic past management and storm damage), such that they are  | visual contribution to the wider locality  |  |                           |
| beyond 40 years; or trees lacking the special quality necessary to merit the category A designation  Unremarkable trees of very limited  Unremarkable trees of very limited  Trees present in groups or woodlands, but Trees with no material conservation or other merit or such impaired condition that without this conferring on them conservation or other they do not qualify in higher categories significantly greater collective landscape they do not qualify in higher categories and/or trees offering low or only temporary/transient landscape benefits  |  | unlikely to be suitable for retention for  |  |  |                           |
| special quality necessary to merit the category A designation  Unremarkable trees of very limited  Unremarkable trees of very limited  Trees present in groups or woodlands, but Trees with no material conservation or other without this conferring on them conservation or other significantly greater collective landscape they do not qualify in higher categories value; and/or trees offering low or only temporary/transient landscape benefits  |  | beyond 40 years; or trees lacking the  |  |  |                           |
| Unremarkable trees of very limited Trees present in groups or woodlands, but Trees with no material merit or such impaired condition that without this conferring on them conservation or other they do not qualify in higher categories significantly greater collective landscape cultural value value; and/or trees offering low or only temporary/transient landscape benefits   |  | special quality necessary to merit the category A designation  |  |  |                           |
| merit or such impaired condition that without this conferring on them they do not qualify in higher categories significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits  | Category C   | Unremarkable trees of very limited   | Trees present in groups or woodlands, but  | Trees with no material                                 | See Table 2               |
| value; and/or trees offering low or only temporary/transient landscape benefits  | Trees of low quality with an                                 | merit or such impaired condition that<br>they do not qualify in higher categories  | without this conferring on them significantly greater collective landscape   | conservation or other cultural value                   |                           |
| s with   | expectancy of at least                                       |  | value; and/or trees offering low or only   |  |                           |
| 150 mm   | 10 years, or young trees with a stem diameter below          |  | temporary/transferr randscape benefits   |  |                           |
|  | 150 mm   |  |  |  |                           |

## Appendix 3