TREE SURVEY

Unit 21,
First Avenue,
Cookstown Industrial Estate,
Dublin 24.

February 2019
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SUMMARY

This report presents a record of trees located at a site located in the Cookstown Industrial Estate, that may potentially be affected by the proposed redevelopment of the site. The trees have been surveyed in accordance with BS 5837 (2012). The survey was undertaken on 9th March 2018 by Cunnane Stratton Reynolds arborist;

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Tree Risk Assessment Qualification (International Society of Arboriculture)
MA(Hons) Landscape Architecture
Member of the Irish Landscape Institute
Chartered Member of the Landscape Institute (UK)
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This survey and report are based on the Topographic Survey & Layout information contained in;

- Precision Surveys - Topographic Survey Dwg No 11517
- EML Architects – Proposed Site Plan Dwg No 3427-SK-1.3E
- CSR – Landscape Plan Dwg No 18329-3-101

A full survey record is presented in Appendix 1, together with accompanying drawings Tree Survey Dwg No 18329_T_101, Constraints Dwg No 18329_T_102 and Tree Protection Plan Dwg No 18329_T_103. After introducing the terms of reference and the methodology of the survey, the report summarises the survey findings in an overview of the existing tree cover within the site.

A total of nine individual trees and three tree groups were inspected.

It is noted that the trees are located along the perimeter of the site adjacent to First Avenue / Cookstown Road. As mature trees they are providing a certain level of amenity value in performing both a screening function and visually softening the environment.

The report concludes with recommendations for protection measures to ensure the conservation of retention trees during any development.
1. INTRODUCTION

Terms of Reference

Cunnane Stratton Reynolds (CSR) were instructed by Bartra Property (Cookstown) Limited to undertake a tree survey, to inform the design and planning of a proposed redevelopment of an existing light industrial site to accommodate a proposed residential development.

CSR considered the trees and tree groups that might potentially be impacted upon by the proposed redevelopment and produced a subsequent tree survey report presenting our findings, (in accordance with BS 5837:2012), together with recommendations for their best practice management in relation to the proposed development.

This involved a survey of the principal trees / tree groups concerned in accordance with BS 5837 (2012).

Documents supplied to CSR for purposes of conducting a tree survey include:

- Precision Surveys - Topographic Survey Dwg No 11517
- EML Architects – Proposed Site Plan Dwg No 3427-SK-1.3E
- CSR – Landscape Plan Dwg No 18329-3-101

Site Inspection & Methodology

The site was surveyed on 9th August 2018 by a qualified Arborist. A visual inspection from the ground was performed on all existing trees / tree groups on site. Principal individual trees were examined and reference number tags attached, critical measurements then taken and observations made.

A description was recorded of each tagged tree / group of trees, their species, age class, all relevant measured dimensions (height, stem diameter, crown spread radii and crown clearance height) and an assessment of the tree health / vitality, structural form, life expectancy and quality categorisation. Any recommended remedial works required were outlined.

The findings of the survey are recorded and presented in this Tree Survey Report and Tree Schedule (Appendix 1).

This report is subject to the scope and limitations as given at the end of the report.

Accompanying Drawings

The tree survey report should be read in conjunction with;

- Tree Classification (Dwg No 18329/T/101).
- Tree Constraints Drawing (Dwg No 18329/T/102).
- Tree Protection Plan (Dwg No 18329/T/103).
A1 size colour coded drawings accompany this report. (Monochrome drawings should not be relied upon). These drawings are based upon the topographical and layout plans supplied to CSR.

Site Location

The site is an area of land located at Unit 21, First Avenue in Cookstown Industrial Estate Dublin 24.
2. DESCRIPTION OF EXISTING TREES

2.1 The approximate development site area (highlighted red – Fig 1 below), is accessed from First Avenue on the northern side and bound by Cookstown Road along its eastern side. A perimeter planting of mature Poplar trees lines the site boundaries along both of these public roadways. The site currently hosts a vacant industrial unit on a relatively flat site.

Figure 1: Low resolution aerial photograph highlighting approximate development site area with red line (courtesy Google Earth).

A total of nine individual trees and three tree groups were inspected. Their location, size and quality category may be reviewed with reference to the accompanying Tree Classification Dwg No 18329/T/101 and the tree survey (Appendix 1).
2.2 Photographic Summary of Trees Surveyed

T470 & T471 (first and second left). Tree Group 1 (remainder of trees).

Tree Group 1 (left of photo).
T472 / T473 / T474 / T475 (right of photo)
T476 (center left) & T477 (center right).

T476 (far left) / Tree Group 2 (First Avenue - northern boundary) / T478 (far right)
Tree Group 2 (Cookstown Rd eastern boundary)

Tree Group 3 (Cookstown Road / eastern boundary).
2.3 Nearly all of the trees present are mature Poplar trees of the same age located in single lines along the site perimeter, presumably planted as screen planting as part of the previous site development. They now are of considerable height though they may not yet have achieved their ultimate size.

There is also a single Birch, unfortunately this tree has developed a significant decay cavity in its main trunk and given its location next to a public footpath and roadway should be felled under the precautionary principle.

In addition there is one Cypress tree, this tree has been topped in the past and is growing in very close proximity to the existing building under the shade of adjacent Poplars, as such it is of very poor form.

Collectively trees can often become more valuable than they might be when considered as individuals. As such it should be noted that the cumulative value of tree groups often reflects an increased categorised value than might be awarded to the constituent trees if they were assessed in isolation as individuals. This is the case with the Poplar tree groups on this site.
3. ARBORICULTURAL IMPACT ASSESSMENT

3.1 This section discusses the potential impact of the proposed development on the existing tree cover on site and considers the need for mitigation measures, in accordance with BS 5837 (2012), for sustainable development.

As mature trees within an urban / light industrial environment it is not unusual that the calculated root protection areas (RPA’s) of the trees surveyed as set out in Dwg 18329_T_102, are likely to extend under existing adjacent footpaths, walls and roadway.

Those trees located along the western site boundary are at a raised level to the site, there being a retaining wall of approximately 4-5ft height between them and the general ground level – this is likely to have prevented significant growth of these trees roots within the site area itself.

The proposed layout has sought to retain the existing trees as far as practical and supplement the scheme with new tree planting throughout to mitigate the loss of those proposed for removal. In this way, some of the benefits of the maturity of the existing tree cover can be retained, whilst replacement trees of a more appropriate species type will provide continuity of canopy cover over the longer term.

Retention of existing trees will require that adequate protective fencing is erected to protect RPA’s during all stages of construction works. It will also be important to ensure that no chemical fluids other and materials escape from the site into the RPA’s.

3.2 Category ‘U’ trees are recommended for immediate removal (felling) on general management grounds, irrespective of site development. One tree (T476) was assigned to category ‘U’.

Direct Loss of Trees

3.3 A portion of Tree Group 3 is in direct conflict with the proposed development and is proposed for removal.

Indirect Impacts

3.4 Cognisance must also be given to indirect impacts - in particular care must be taken to ensure the proposed development and ancillary works do not represent an unacceptable conflict with the calculated ‘Root Protection Area’ of the existing trees - as illustrated in Tree Constraints Dwg No 18329/T/102.

Disturbance of ‘Root Protection Area’ may just as readily kill or destabilise a tree over time, by means of root damage/severance and or earth compaction/covering preventing essential transfer of water and air to roots.

The following trees are proposed for removal due to foreseeable indirect impacts;

T472
T473
T474
T475
T476
T477
T478
Tree Group 2 (all of group).

Additional Loss of Trees – Considerations

3.5 T470 proposed for removal due to very poor form and to allow greater space for T471 to develop.

Summary of Trees to be Removed

3.6 The following trees are proposed for removal;

T470
T472
T473
T474
T475
T476
T477
T478
Tree Group 2 (All of group)
Tree Group 3 (Majority of group)

Tree Protection

3.7 It will be necessary to protect existing trees from site works by means of a tree protection fence or similar approved being located along the site boundary as identified in Tree Protection & Removal Dwg No 18329/T/103.
4. RECOMMENDATIONS – Arboricultural Method Statement

Recommendations for the specific measures advised regarding management of the trees in relation to this development are detailed within Appendix 1. These recommendations should inform, and be referred to in, the method statements submitted for approval prior to commencement by the responsible building/engineering and landscape contractors whose works (subject to grant of permission) will affect retained trees and the Tree Protection Areas.

1. Tree Works.

Subject to the required permissions removal / felling works as specified on Dwg No No18329_T_103, should be performed prior to project commencement, by reputable contractors in accordance with BS 3998:2010 and current best practice, preferably to be performed in winter outside of the bird nesting season. Tree felling should be preceded by a competent assessment as to the presence of any protected wildlife species, where required specialist advice should be sought if necessary.

Any branches overhanging site area shall be pruned back, to avoid potential conflict with site machinery, in accordance with BS 3998:2010.

2. Protective Fencing.

Following above permitted, priority tree works, protective fencing (barriers) should be erected in the positions and alignments as indicated on the Tree Protection & Removal Plan (Dwg No No18329_T_103). Fencing should be in accordance with BS 5837:2012 unless otherwise agreed with the planning authority. Commencement of development should not be permitted without adequate protective fencing being in place. This fencing, enclosing the minimum tree protection areas indicated, must be installed prior to any plant, vehicle or machinery access on site. Fencing should be signed ‘Tree Protection Area – No Construction Access’. Fencing is not to be taken down or re-positioned without written approval of the project Arborist. No excavation, plant or vehicle movement, materials handling or soil storage is to be permitted within the fenced tree protection areas indicated on plan.

3. Boundary Treatments

Landscape works and installation of / work to boundary treatments within the Root Protection Area should be undertaken to a specification and method statement in accordance with BS 5837: 2012 - submitted for approval prior to commencement of works, under the supervision of an Arborist and / or Landscape Architect.

4. Landscape Works

Any proposed landscaping works including new planting, shall be performed in accordance with BS 5837:2012. During these works, the ground around retained trees must not be compacted by vehicles, nor be mechanically excavated for planting, nor be significantly altered in terms of ground levels.

5. Monitoring & Compliance

Should unforeseen matters occur regarding existing trees during the development, a professionally qualified Arborist is recommended to be retained as required by the
principal contractor or developer to monitor and advise on any works within the RPA of retained trees to ensure successful tree retention and planning compliance.

Copies of the Tree Survey and all accompanying drawings, a copy of BS 5837:2012 and NJUG 4 (2007) ‘Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees’ should all be kept available on site by the contractor during development. All works are to be in accordance with these documents.

It is advised that all retained trees be subject to expert re-inspection within 12 months and/or prior to completion of development and public occupancy/access of the site.
Limitations and Scope of this Survey Report

This report covers only the trees individually inspected, (shown on the ‘Tree Survey Drawings’ and described in the ‘Schedule’), and reflects the condition of those trees at the time of inspection. Inspection is limited to visual examination of the subject trees from the ground without; test boring, use of tomographic equipment, dissection, probing, coring, ivy removal or excavation to establish structural integrity.

The trees were not climbed and dimensions are approximate, but considered a reasonable reflection of the trees measurements. This survey can only therefore be regarded as a preliminary assessment.

There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the subject trees may not arise in the future. The currency of this survey report and its recommendations is one year.

The accompanying drawings are illustrative and based on the land (topographical) survey supplied; CSR Ltd accept no legal liability or responsibility for any errors in the information contained in the supplied drawings.

CSR Ltd accept no responsibility for the performance of trees subject to pruning or other site works (including construction activities) not performed in strict accordance with recommendations as specified in this report and/or in accordance with BS 3998:2010 and BS 5837:2012

All retained trees mentioned in this report should be subject to expert re-inspection within 12 months and prior to completion of development works and public occupancy of the site.

This report was produced as part of a planning application for the scheme; the author accepts no responsibility or liability for actions taken by reason of this report by the client or their agents unless subsequent contractual arrangements are agreed. Public disclosure or submission of any part of this report without title, or permission from the author, renders this report invalid and legally inadmissible.

References/Bibliography


APPENDIX 1

TREE SURVEY KEY

Information in the attached schedule is given under the following headings:

Tree No.

Individual trees have been numbered and tagged on site with corresponding survey tag or treated as a group where appropriate (e.g. Woodlands/hedgerows) and illustrated on accompanying tree survey drawing.

Species

Latin names of species are provided

Height

Overall estimated height given in meters (measured using Truplus 200 Laser Rangefinder).

Stem Diameter

The diameter of the main trunk taken at a height of 1.5m on a single stem tree, or, on each branch of multi-stemmed (MS) trees.

Crown Spread

The largest radius of branch spread is provided in meters for North / East / South and West directions.

Height of lowest branch

The distance between ground level and first significant branch or canopy (and direction of growth) given in meters (m).

Any measurement or dimension that has been estimated (for offsite or otherwise inaccessible trees where accurate data cannot be recovered) is identified by the suffix #.

Life stage

The tree’s age is defined as:

Y = Young, in first third of life (tree which has been planted in the last 10 years or is less than 1/3 the expected height of the species in question).

MA = Middle Age, in second third of life (tree, which is between a 1/3 and 2/3’s the expected height of the species in question).

M = Mature, in final third of life (tree that has reached the expected height of the species in question, but still increasing in size).
OM = Over mature (tree at the end of its life cycle and the crown is starting to break up and decrease in size).

V   = Veteran Tree (exceptionally old tree).

Physiological Condition

The tree’s physiological condition is defined as:

**Good** - Good vitality: normal bud growth, leaf size, crown density and wound closure

**Fair** - Average to below average vitality: reduced bud growth, smaller leaf size, lower crown density and reduced wound closure

**Poor** - Low vitality: limited bud growth, small chlorotic leaves, sparse crown, poor wound closure

**Dead** - No longer living.

Structural Condition

The trees structural condition is defined as:

**Good** - No major structural defects observed (possibly some minor defects)

**Fair** - Minor defects present, (such as bark wounds, isolated decay pockets or structure affected due to overcrowding), that could be alleviated by tree surgery/management

**Poor** - Major structural defects present such as extensive deadwood, decay or defective to the point of being dangerous. (Significant defects are noted e.g. decay, collapsing etc).

Preliminary Management Recommendations & Timescale

Recommendations actions based on limitations of survey – (may include further investigation and or assessment of suspected defects by means and or methods not undertaken / within the remit of this survey).

Estimated Remaining contribution (Years)

Life of the tree is given as;

10 <  less than 10 years remaining
10 +  in excess of 10 years remaining
20 +  in excess of 20 years remaining
40 +  in excess of 40 years remaining

Tree Quality Assessment Category

**U** Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.
• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)

• Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline

• Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality

(NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve).

A  High quality

Trees of high quality with an estimated remaining life expectancy of at least 40 years

A1 Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)

A2 Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features

A3 Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)

B  Moderate quality

Those trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

B1 Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation.

B2 Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.

B3 Trees with material conservation or other cultural value

C  Low quality

Trees of low quality with an estimated remaining life expectancy of at least 10 years; or young trees with a stem diameter below 150 mm.

C1 Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.
C2 Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits.

C3 Trees with no material conservation or other cultural value.
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<th>Tag</th>
<th>Species</th>
<th>Height (m)</th>
<th>Crown Spread (m) N/S/E/W</th>
<th>Girth (mm)@1.5m</th>
<th>Ht of lowest branch (m) &amp; direction of growth</th>
<th>Life Stage</th>
<th>Estimated remaining contribution (years)</th>
<th>Physiological Condition</th>
<th>Structural Condition</th>
<th>Preliminary management recommendations</th>
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