



**Preliminary Tree Survey and Report
Trees at Proposed Development at
Malahide Road
Dublin 13**

May 2019

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Contents

<u>Page</u>	<u>Subject</u>
1	Report Summary
3	Introduction
	Survey and Impact Assessment Brief
4	Appendix 1 - The Survey
	Nature of Survey and Report
	Drawing Reference
	Site Description
5	Survey Data Collection and Methodology
6	Survey Key and Explanations
7	Tree Protection and Management within Scope
8	Table 1 - Tree Survey Table

This report should be read in conjunction with the “Tree Constraints Plan” drawing “D1-TCP-Malahide Rd-05-19”

Report Summary, Findings and Recommendations

This report was commissioned by **Park Hood**

The survey has been prepared by-
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In line with client instructions, this report comprises a simple qualitative tree survey and a summary report describing the material of Arboricultural interest upon and adjoining the site in question.

This information has been provided without any review of possible development works. This information does not include a full “Arboricultural Implication Assessment” and it does not provide an “Arboricultural Method Statement” or “Tree Protection Plan”. It does however provide much of the basic information that would assist in the compilation of such documentation, should it be requested in the future and with the provision of suitable information regarding the nature and extent of any proposed development works.

This tree report should be read in conjunction with the combined tree constraints and basic impacts plan drawing “D1-TCP-Malahide Rd-05-19”. This drawing provides a graphic representation of the tree survey depicting the constraints of those trees potentially affected by work as well as categorisation their condition and potential value. Accordingly, and in line with BS5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations, this documentation does provide an invaluable “design tool” in respect of the quantification of sustainable trees within any proposed development.

Site Tree Review

The site’s trees tend to be young and of small stature. The only exception to this is the Horse Chestnut arising from outside the site to the north, that was considered close enough (overhanging) to the site as to be pertinent to the reporting context. Unfortunately, this tree was found to be in particularly poor condition and in a state of ongoing decline and thereby offers no realistic sustainability. There is indeed potential for continued decline to see a deterioration to the extent that sees the tree present a tangible threat of harm to the site, this being the basis for the current recommendation for removal.

The main site supports very little material of Arboricultural interest. The best tree on the site is the young Lime located to the rear of the existing public laundry facilities and against the boundary wall of the adjoining and neighbouring buildings. While this tree is of good quality, is healthy and offers immense potential for future growth, its context and location is flawed in that the young tree arises from a highly constrained soft landscape and is already encroaching upon both existing site facilities and the neighbouring buildings, suggesting that sustainability is undermined and may if retained, be subject to regular maintenance. This issue when combined with the small current size of the tree would suggest that replacement at better ranges and in line with any future context might provide for a more sustainable approach.

The remaining tree material on the site is of poor quality, typically comprising weed species such as Birch, Goat Willow and Buddleia of typically small sizes, having arisen naturally since the site became unused. This material is considered unsuitable for retention.

Located outside but often adjoining the site, is what can be regarded as street tree plantings, typically comprising Sycamore, Norway Maple, Cherry, Birch and Alder. In line with all other material, these trees are relatively young and typically of small stature. This creates one scenario repeated often, in that many of the trees adjoining the public pavement adjoining the north-western edge of the site arise from highly constrained ground environments. This constraint is in many instances, already showing evidence of growth-related disturbance including the

distortion/shifting of kerb stones and the uplifting/distortion of paving. When considering the small stature and young age of these trees then substantial and ongoing growth disturbance must be considered as inevitable, thereby questioning the sustainability of these trees. Therefore, and should street trees be required in this area then consideration might best be given to replacement while the trees are still young and small, with new trees installed within a context specific scenario, for example by including structured tree pits of structural soil systems beneath the paving.

The trees on the central road reserve included within the report appear to present lesser issues in that their planting context offers far more space for ongoing development. Nonetheless, issues of encroachment, both on the pedestrian crossing facility and the road carriageway are becoming apparent, suggesting a need for pruning intervention, possibly combining “crown-raising” to increase pedestrian headroom and “crown-reduction type pruning to control encroachment on the nearby carriageways.

Management Recommendations

Preliminary management recommendations have been put forward within the context of the survey table. Such recommendations are based on the current site scenario and pay no respect to any possible site developments or the effects that these may have on the trees. It will be necessary for the project Arborist to re-assess all retained trees after primary site clearance, so that changes in site usage, aspect and shelter loss can be better assessed and accounted for.

As shelter-loss is already an issue on this site, then it should be considered as likely that additional works will be recommended that are orientated towards addressing such issues, such as the application of crown-reduction type works.

In respect of this and regardless of any possible site development, it is advised that all trees be reviewed on regular basis and particularly, after any actions that may affect the trees, be those site development works, or tree management works that involve tree removal or pruning.

It should be appreciated that some of the concerns raised in the tree survey were based on evidence suggesting ongoing decline or contextual issues. Such deterioration may well continue to a point where additional trees need to be removed. For this reason, trees must be reviewed regularly so that early intervention and action can be applied in a timely manner.

Additionally, many of the sites larger trees were affected by Ivy development. Whilst itself not an indicator of ill-health, Ivy cover can readily obscure signs and symptoms of ill-health or physical defect. Therefore, and whilst nominal assessments have been made for the purposes of this survey, the true condition of trees affected by Ivy cover might not be fully known until Ivy cover has been dealt with, either by cutting resulting in shedding or by the undertaking of climbing inspections.

Development Implications

This document comprises only a review of trees that exist upon or adjoining the site in respect to its existing context. It is appreciated that site development works may alter this scenario or may affect the suitability of various trees to be retained.

In respect of this, it is advised that any development proposals are reviewed under the auspices of an “Arboricultural Implication Assessment” that will review the development proposals and provide an assessment of the potential for tree retention within the new context. This information can then be used to develop an “Arboricultural Method Statement” and a “Tree Protection Plan” to control and guide site works in a manner that will be least detrimental to tree health and thus may maximise tree sustainability.

This survey has been undertaken at the instruction of: -

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Report Brief

In accordance with the request for information, the intention of the tree survey is to register, describe and evaluate the trees regarding their current health status and current condition within their current context. The survey is based upon and has been compiled considering the recommendations of BS5837: 2012 Trees in Relation to Design, Demolition and Construction – Recommendations.

Report Context

In line with the recommendations of “BS5837: 2012 Trees in Relation to Design, Demolition and Construction – Recommendations”, this assessment has been advised by the results and findings of a tree survey, the findings of which are included as “Appendix 1” to this report.

Report Limitations

This report is based on the Arborists interpretation of information provided to his prior to report compilation and gained from the site during the undertaking of the site review. The site review data is subject to the limitation as set out under “Inspection and Evaluation Limitations and Disclaimers” in “Appendix 1” to this report. The findings and recommendations made within this report are based upon the knowledge and expertise of the inspecting Arborist.

Appendix 1 – Tree Survey

Nature of Survey

This survey has been based upon many of the criteria put forward in BS 5837: 2012 – Trees in Relation to Design, Demolition and Construction – Recommendations.

The data collected has been represented in table form as “Table 1” within “Appendix 1” to this report. This appendix includes a Survey Methodology, Survey Key, Survey Abbreviations, Condition Category Definitions and a brief resume of the typical application of Tree Protection measures as defined within the above standard and as relates to the “RPA” zones defined both within the survey table and on the “TCP” drawing.

The survey relates to the site and the conditions thereon at the time of the survey. It is likely that changes in site usage, development or other environmental changes will require an amendment of recommendations and in some instances, may require the re-classification of a tree’s suitability for retention.

Drawing References

The survey should be read in conjunction with drawing “D1-TCP-Malahide Rd-05-19” regarding the representation of tree positions, crown forms, “RPA” extents and colour reference to category systems. Where tree positions were not indicated on the supplied drawing, their positions may have been given “sketched” locations within “D1-TCP-Malahide Rd-05-19”. It is advised that any such trees are accurately located by professional means so that the constraints such trees have upon the site can be accurately gauged.

Each tree is represented by a coloured circle, scaled to represent the north, east, south and west crown radii as denoted in the survey table. Each tree (categories A-green, B-blue and C-grey only) have been apportioned a “Root Protection Area” (RPA) denoted as a dashed orange circle. This circle represents the minimum area requiring protection from the effects of development activity. It should, for the purposes of design, be considered, as approximating the position of the tree protection fencing that must be erected prior to the commencement of any site works, thus excluding all site activities other than those dealt with by way of the “Arboricultural Implication Assessment” and “Arboricultural Method Statement”

Survey Intent and Context

Intention of this document is to highlight the extent and nature of material of Arboricultural interest on the site in question.

Site Description

The site in question is broadly commercial nature and typical of brownfield scenarios. To the north of the site, there are existing fuel retail and car sales establishments the time of the site review remain functional. The southern portion of the site appears broadly derelict and disused though comprises substantial hard standing. The tree population associated with site is particularly minimal and typically associated with nearby and adjoining grass margins. The southern portion of the site does support a small amount of spurious vegetation this, typically comprising Bramble, Buddleia and Goat Willow is naturally arising and relate more to dereliction disuse as opposed to any planned planting.

Survey Data Collection and Methodology

The Survey

The primary survey was carried out in May of 2019. This survey is not an Implication Assessment though but provided some of the basic information regarding its compilation. The survey has been undertaken under the recommendations of BS 5837: 2012. This survey includes only tree of a stem diameter exceeding 150mm at approximately 1.50 metres from ground level. The survey relates to current site conditions, setting and context.

Identification

Each of the trees described within the text has been affixed with a consecutively numbered, alloy disk that relates directly to the survey text, positioned at approximately 1.50m from ground level.

Measurements

Measurements are metric and defined in metres and millimetres. All trees referred to in the survey text have been measured to provide information regarding canopy height and canopy spread (north, east, south and west radii), level of canopy base and stem diameter at 1.50 meters from ground level. The dimensions provided are intended to provide a reasonable representation of a trees size and form. Whilst efforts are made to maintain accuracy, visual obstruction, especially regarding trees in groups, requires that some tree dimensions are estimated only.

Inspection and Evaluation Limitations and Disclaimers

The information set out in this report relates to the review of a tree population on the site in question. As such, the information provided is based on a general review of trees and does not constitute a detailed review of any one of the individual specimens. Such an evaluation (tree report) would require the gathering of substantially more information than that dealt with in this survey.

The survey is not a safety assessment and the parameters reviewed within this survey context would be substantially deficient in extent to provide for a reliable safety assessment. The survey is intended to provide a general and qualitative review to assist in gauging the suitability of an individual tree for retention within a development context. All trees are subject to impromptu failure and damage and the assessment of risk as may be presented by a tree requires the review of numerous factors more than those noted herein and as such, remains outside the scope of this document and any attempt to use the information herein for such proposes will render the information invalid.

A competent and experienced Arborist has completed all inspection and tree assessment. The inspection involves visual assessment only, which has been carried out from ground level. No below ground, internal, invasive or aerial (climbing) inspection has been carried out.

Trees are living organisms whose health, condition and safety can change rapidly. It is recommended that all trees should be re-evaluated regarding their condition on an annual basis or after substantial trauma such a storm event, other damage or injury. It is advised that the results and recommendations of this survey will require review and reassessment after one year from the date of execution. This survey does not constitute a review of tree or site safety. Attempts to use the contents herein for such purposes will render the contents invalid.

Throughout the undertaking of the survey, several factors acted against the inspectors, contriving to reduce the accuracy of the survey.

Seasonality

The survey was commenced during the spring period. Some of the signs, typically symptomatic of ill-health or defect within a tree, may not have been available to view at the time of the survey or may have been obscured by seasonality related factors. Some of the fruiting bodies of various fungi, parasitic upon or causing decay or disease in trees, may have been out of season and unavailable to view. This survey can only comment upon symptoms of ill-health or defects visible at the time of the inspection.

Survey Key

Species	Refers to the specific tree species
Age	Referred to in generalized categories including: -
Y - Young.....	A young and typically small tree specimen.
S/M - Semi-Mature.....	A young tree, having attained dimensions that allow it to be regarded independently of its neighbours but typically, would be less than 50% of its ultimate size.
E/M - Early-Mature.....	A specimen, typically 50% - 100% of ultimate dimensions but with substantial capacity for mass and dimensional increase remaining.
M - Mature.....	A specimen of dimensions typical of a full-grown specimen of its species. Future growth would tend to be extremely slow with little if any dimensional increase.
O/M - Over-Mature.....	An old specimen of a species having already attained or exceeded its naturally expected longevity.
V - Veteran.....	An extremely old, veteran specimen of a species, usually of low vigour and typically subject to rapid decline and deterioration or of very limited future longevity.
Tree Dimensions	All dimensions are in meters. See notes regarding limitation of accuracy.
Ht	Tree Height
C-Ht	Lowest canopy height
FSB	Level of First Significant Branch
Sp: R	Tree Canopy Spread measured by radii at north, east, south and west
Dia	Stem diameter at approx. 1.50m from ground level.
RPA	Root Protection Area, as a radius measured from the tree's stem centre.
Con	Physical Condition
G Good.....	A specimen of generally good form and health
G/F Good/Fair.....	
F Fair.....	A specimen with defects or ill health that can be either rectified or managed typically allowing for retention
F/P Fair/Poor.....	
P Poor.....	A specimen whom through defect, disease attack or reduced vigour has a limited longevity or may be un-safe
D Dead.....	A dead tree
Structural Condition	Information on structural form, defects, damage, injury or disease supported by the tree
PMR – Preliminary Management Recommendations	Recommendation for Arboricultural actions or works considered necessary at the time of the inspection and relating to the existing site context and tree condition. Note is also made of works considered as urgent.
Retention Period	
S – Short.....	Typically 0 -10 years
M – Medium.....	Typically 10 -20 years
L – Long.....	Typically 20 – 40 years
L+.....	Typically in excess of 40 years
Category System	The Category System is intended to quantify a tree regarding its Arboricultural value as well as a combination of its structural and physical health. Note should be made of the fact that tree categorization relates to the current site and tree locations therein. As site changes occur, it may become necessary to re-evaluate trees regarding their relationship to new features.
Category U.....	Typically relates to trees that are dead, dying or dangerous. Such trees may present a threat of suffer from a defect or disease that is considered irremediable.
Category A.....	A typically a good quality specimen, which is considered to make a substantial Arboricultural contribution
Category B.....	Typically including trees regarded as being of moderate quality
Category C.....	Typically including generally poor-quality trees that may be of only limited value. The above categories (A, B and C) will be further subdivided regarding the nature of their values or qualities. A tree may be awarded one or more value categories as below, but such attributes do not infer any additional value and it may be possible for a tree may qualify for one or more of the categories as below.
Sub-Category 1.....	Values such as species interest, species context, landscape design or prominent aspect.
Sub-Category 2.....	Mainly cumulative landscape values such as woods, groups, avenues, lines.
Sub-Category 3.....	Mainly cultural values such as conservation, commemorative or historical links.

Tree Protection and Management within the Scope of a Development

The design and management recommendations as set out in BS5837: 2012 are considered “best practice” regarding the selection, retention, protection and management of tree within the scope of a new development.

The development of a Tree Constraints Plan (TCP) provides a design tool regarding tree retention. Such a plan combines the topographical land survey drawing with additional information as provided by the tree survey. The aspects of the tree’s existence recorded on the “TCP” are, firstly, the tree canopies, represented in accordance with the four cardinal compass point radii (Sp: R in survey Table 1). Secondly, each tree’s Root Protection Area (RPA) is represented in accordance with paragraphs 4.6.1, 4.6.2 and 4.6.3 of BS5837: 2012.

The “Tree Constraints Plan” (TCP) depicts the extent and location of constraints, placed upon the site by the trees. The “TCP” drawing represents both the true canopy form (north, east, south and west radii) and the “RPA” as defined above. These constraints must be considered regarding the design and layout of a proposed development.

Tree Protection

All protection, whether vertical or horizontal, must conform or equate to the recommendations of Section 9, BS5837: 2012, must be fit for purpose and commensurate with the nature of development and the expected day-to-day activities of the site works.

Table 1 – Tree Data Table

No.	Species	Age	Con	Ht	CH	N	E	S	W	Stm	Dia	RPA	Structural Condition	PMR	Yrs	Cat
1	Horse Chestnut (<i>Aesculus hippocastanum</i>)	M	P	19.00	4.00	5.50	6.50	7.00	6.00	1	885	10.62	Large specimen arising from planted open space to rear of adjoining commercial unit. Tree supports invisible imbalance to east. Crown vigour and vitality is particularly poor with evidence of dieback throughout. Tree is considered unsustainable.	Remove.	N/A	U
2	Ornamental Cherry (<i>Prunus variety</i>)	E/M	F/P	4.50	2.00	3.50	3.00	1.50	1.00	1	197	2.37	Heavily distorted and unbalanced. Arises from particularly limited soft margin adjoining pavement and kerb edge to car park. Tree appears associated with existing uplifting of pavements. Tree is not considered sustainable.		S	C2
3	Lime (<i>Tilia europea</i>)	S/M	G/F	9.00	1.75	3.50	2.50	2.50	3.00	1	213	2.56	Young and vigorous, apparently installed as part of development of site. Asserts immense potential for growth over time. Proximity to existing facilities and buildings raises some concern with regard to growth potential and encroachment.		L	B2
4	Lime (<i>Tilia europea</i>)	S/M	P	5.50	0.00	2.50	2.50	2.50	2.50	1	271	3.25	Comprises the sucker regeneration from the stump of a previous tree. Is considered unsustainable.		N/A	U
5	Sycamore (<i>Acer pseudoplatanus</i>)	S/M	F	7.00	2.00	2.50	2.25	2.50	1.50	1	220	2.64	Young and vigorous but arising from limited grass reserve between pedestrian footpath and adjoining the roadside kerb edge. Footpath in vicinity of tree appears to exhibit evidence of chronic uplifting likely to be associated with tree root growth. Tree is of dubious sustainability		S	C2

No.	Species	Age	Con	Ht	CH	N	E	S	W	Stm	Dia	RPA	Structural Condition	PMR	Yrs	Cat
6	Sycamore (<i>Acer pseudoplatanus</i>)	S/M	F	9.00	2.50	3.00	3.50	3.50	3.00	1	347	4.16	Young and vigorous though slightly distorted. Arises from limited soft margin between roadside kerb edge and existing footpath. Basal region of buttress roots have sustained mechanical damage. Asymmetry of adjoining pavement surface suggests uplifting. Sustainability is questionable.		M	C2
7	Sycamore (<i>Acer pseudoplatanus</i>)	S/M	F	8.50	2.50	3.50	3.50	3.50	3.00	1	328	3.93	Vigorous with immense potential continued growth over time. Arises from particularly limited and surrounded soft aperture within a surface where extensive uplifting and ground surface distortion has already occurred. Tree is of dubious sustainability.		S	C2
8	Sycamore (variagated) (<i>Acer pseudoplatanus</i>)	S/M	F	7.50	2.00	3.00	2.50	3.00	2.50	1	290	3.48	Remains vigorous but is slightly distorted. Arises from limited soft margin roadside kerb edge and footpath pavement. Local ground surface distortion suggest uplifting. Tree is of dubious sustainability.		M	C2
9	Norway Maple (<i>Acer platanoides</i>)	S/M	F	7.00	2.00	4.00	3.50	4.00	3.50	1	328	3.93	Young and still vigorous. Lower stem and buttress roots have sustained notable bark damage. Tree arises from limited soft margin between pedestrian footpath roadside kerb edge. Visible roots in vicinity of roadside kerb edge distortion suggest prior disturbance and limited sustainability.		M	C2

No.	Species	Age	Con	Ht	CH	N	E	S	W	Stm	Dia	RPA	Structural Condition	PMR	Yrs	Cat
10	Sycamore (<i>Acer pseudoplatanus</i>)	S/M	F	7.00	1.75	2.50	3.00	3.50	2.00	1	337	4.05	Distorted but remains vigorous. Arises from limited space between pedestrian footpath roadside kerb edge. Lower stem has suffered prior physical damage. Tree is considered to be of dubious sustainability.		M	C2
11	Goat Willow (<i>Salix caprea</i>)	S/M	F	3.50	0.00	2.25	2.25	2.25	2.25	1	223	2.67	Young and vigorous was arising as natural regeneration within derelict site. Tree is not considered sustainable.	Remove.	N/A	U
12	Buddleia (<i>Buddleia davidii</i>)	M	F/P	3.50	0.00	3.00	3.50	2.00	1.00	1	229	2.75	Large element of natural redevelopment within a broadly overgrown site a broad and derelict site.		N/A	U
13	Buddleia (<i>Buddleia davidii</i>)	M	F	2.50	0.00	2.50	2.50	1.00	1.00	1	207	2.48	Large element of natural redevelopment within a broadly overgrown site a broad and derelict site.		N/A	U
14	Sycamore (<i>Acer pseudoplatanus</i>)	S	P	6.00	0.00	2.00	1.50	1.50	2.00	1	175	2.10	Young, vigorous but distorted. Arising as natural redevelopment from derelict and disused site		N/A	U
15	Norway Maple (<i>Acer platanoides</i>)	S/M	G/F	6.00	1.75	3.50	3.00	1.50	2.50	1	229	2.75	Young and vigorous, arising from broad reserve between carriageways.		L	B2
16	Sycamore (<i>Acer pseudoplatanus</i>)	S/M	G	9.00	2.00	5.00	4.50	4.00	4.50	1	411	4.93	Young and vigorous with immense potential continued growth.		L	B2
17	Norway Maple (<i>Acer platanoides</i>)	S/M	G	8.00	2.00	5.00	3.50	2.00	3.50	1	347	4.16	Supports notable imbalance to north.		L	B2
18	Lime (<i>Tilia europea</i>)	S/M	G	5.50	0.00	3.00	3.00	3.50	3.00	1	239	2.86	Young and vigorous supporting minor imbalance to north.		L	B2

No.	Species	Age	Con	Ht	CH	N	E	S	W	Stm	Dia	RPA	Structural Condition	PMR	Yrs	Cat
19	Lime (<i>Tilia europea</i>)	S/M	G	5.50	1.25	3.50	3.50	2.50	2.50	1	306	3.67	Young and vigorous. Proximity to pedestrian crossings surface suggest some potential for growth related disturbance over time.		L	B2
20	Grey Alder (<i>Alnus incana</i>)	S/M	F	7.50	0.00	4.00	4.50	3.00	1.00	1	229	2.75	Heavily suppressed and one-sided, unbalanced to east.	Review regularly.	M	C2
21	Silver Birch (<i>Betula pendula</i>)	S/M	G/F	7.50	2.00	1.50	1.50	2.00	2.50	1	216	2.60	Suppressed through proximity of near neighbours but is maintaining good vigour and vitality.		L	B2
22	Field Maple (<i>Acer campestre</i>)	S/M	F	7.50	2.00	3.00	2.00	1.50	3.00	1	236	2.83	Suppressed through proximity of near neighbours but is maintaining reasonable vigour and vitality.		M	B2
23	Silver Birch (<i>Betula pendula</i>)	E/M	F	8.00	0.50	2.50	3.00	2.00	1.00	1	216	2.60	Suppressed through proximity of near neighbours but is maintaining reasonable vigour and vitality.		L	B2
24	Sycamore (<i>Acer pseudoplatanus</i>)	S/M	F	7.50	0.00	3.00	4.50	2.50	3.00	1	261	3.13	Slightly suppressed but maintaining good vigour and vitality.	Remove basal suckers.	L	B2
25	Grey Alder (<i>Alnus incana</i>)	S/M	F	7.50	0.50	3.50	3.00	0.50	1.50	1	207	2.48	Imbalance to north. Vigour and vitality is less than near neighbours suggesting possible issues relating to health status.	Review regularly.	M	C2
26	Sycamore (<i>Acer pseudoplatanus</i>)	S/M	F	5.50	0.00	2.50	2.50	2.50	2.50	6	328	3.93	Comprises suck regeneration arising from the stump of a previous tree. Is of poor mechanical form of dubious sustainability.	Consider replacement.	N/A	U
27	Grey Alder (<i>Alnus incana</i>)	S/M	F/P	6.00	0.00	3.00	2.50	2.00	3.00	1	197	2.37	Squat and suppressed. Is of reduced vigour with extensive twiggy decline notable throughout crown suggesting limited sustainability	Remove basal suckers and review regularly.	S	C2