Independent Tree Surveys Ltd

Tree Survey & Planning Report
1A The Crescent
Lucan
Co. Dublin

July 2022

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Contents

1.0 Introduction

It is proposed to construct a new house in the rear garden of number 1A The Crescent, Lucan, Co. Dublin. The garden contains a number of trees and shrubs, some of which are likely to be affected by the proposed works. This report has been prepared to provide an Arboricultural assessment of these trees to assist with the plans for the new development and for inclusion with the planning application for the project. The survey data was collected and collated in accordance with BS5837: (2012) *Trees in relation to design, demolition, and construction – Recommendations.*

2.0 Report Limitations

- The inspection has been carried out from ground level using visual observation methods only.
- Trees are living organisms whose health and condition can change rapidly. Trees should be checked on a regular basis, preferably once a year. The conclusions and recommendations of this report are valid for one year.
- The fruiting bodies of some important species of decay fungi only emerge at certain times of the year and may not have been visible during this inspection.
- There is no such thing as a 100% safe tree in all conditions, since even perfectly healthy trees may fall or suffer branch break.
- Climbing plants and/or dense undergrowth can obscure structural defects and some symptoms of disease, where such plants prevent a thorough examination it is recommended that the vegetation be cut back, and the tree re-inspected.
- Where trees are inaccessible due to dense vegetation, topography, structures etc. the tree will be assessed on the basis of what visual information can be observed by the surveyor. Tree stem dimensions in these circumstances will be estimated.

Report Prepared by

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M Abor A (Membership number PR407)

July 14th 2022

3.0 Survey Methodology

The trees were accessed on foot and assessed using Visual Tree Assessment (VTA) techniques only. Field data for the trees was collected in accordance with BS5837: (2012) *Trees in relation to design, demolition and construction – Recommendations.*

4.1 Survey Key

Tree Numbers

Individual trees were tagged with numbered tree tags for identification and cross reference with the survey schedule and site drawings.

Tree Species

Common and botanical names of the tree species were recorded.

Tree Crown Dimensions

Tree height (Ht), crown clearance (Cl) and crown-spread (NESW cardinal points) measurements are in metres and are estimated.

Stem Diameter (Dbh)

Measurements are in millimetres and taken at 1.5m from ground level, multiple stems (St) are recorded as a function of the BS:5837 RPA formulae described below.

Tree age classes

Y	Young	Recently planted (with 5 years or so)
SM	Semi-Mature	Well established young tree
EM	Early Mature	Established tree not yet fully grown
M	Mature	Full or near full grown tree
LM	Late Mature	Older specimen in full maturity
OM	Over Mature	Full maturity now declining through natural causes
Vet	Veteran	Notable due to large size, old age, ecological importance

Tree Physiological and Structural condition

Tree condition was graded as

Good:	No obvious defects visible, vigour and form of tree good.
Fair:	Tree in average condition for its age and the environment.
Poor:	Tree shows signs of ill health/structural defect
Bad:	Tree in seriously bad health/major structural problem

Work Recommendations

Preliminary management recommendations are made where necessary and pertain to current site conditions unless otherwise stated.

Estimated Remaining Contribution (ERC)

The approximate number of years that a tree should continue to live and contribute amenity, conservation or landscape value to the site under current site conditions.

4.2 Tree Retention Category (Cat) (BS5837: 2012 Trees in relation to design, demolition and construction – Recommendations)

The tree retention category system grades a tree's suitability for retention within a development:

A Indicates a tree of high quality and value. These are trees that are particularly good examples of their species, which also provide landscape value. These trees are in such a condition as to be able to make a substantial contribution. (A minimum of 40 years is suggested)

B Indicates a tree of moderate quality and value. Trees that might be included in the high category but are downgraded because of impaired condition. These trees are in such a condition as to make a significant contribution. (A minimum of 20 years is suggested)

C Indicates a tree of low quality and value - trees with an estimated remaining life expectancy of at least 10 years, or trees with a stem diameter of below 150mm and/or <10m in height.

U Trees that are 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.

Sub Categories

Tree categories may be further categorised using the following sub-categories (e.g. C1, C2 or C3) - 1 mainly Arboricultural qualities, 2 mainly landscape qualities, 3 mainly cultural values.

4.3 Root Protection Area (RPA)

The Root Protection Area **(**RPA) is the minimum area around individual trees to be protected from disturbance during construction works; RPA is recorded as a radius in metres measured from the tree stem and is shown on the tree survey/constraints drawing as a circle with the tree stem in the centre.

For single stem trees, the root protection area (RPA) should be calculated as an area equivalent to a circle with a radius 12 times the stem diameter.

For trees with more than one stem, one of the two calculation methods below should be used.

The calculated RPA for each tree should be capped to 707 m2.

a) For trees with two to five stems, the combined stem diameter should be calculated as follows:

√ ((stem diameter 1)2 + (stem diameter 2)2 ... + (stem diameter 5)2)

b) For trees with more than five stems, the combined stem diameter should be calculated as follows:

√ ((mean stem diameter)2 × number of stems)

5.0 Findings

The survey area covered the southern part of the rear garden of number 1A The Crescent. Some additional trees growing in neighbouring gardens were also included for added detail where the trees were likely to have some root-spread into the site.

The trees and shrubs were assessed during a site visit on the 16th June 2022. The field survey findings are recorded in the survey schedule appended to the report and include the data for 12 individual trees. All of the trees assessed were graded category C (low value) on account of their age class, size, species or condition. No significant mature specimen trees of high value were identified on the site. Tree location, crown spread, RPA and category are shown on the Tree Survey Drawing 22039_TS (Tree Constraints Plan).

The site is compact and roughly rectangular (approx. 6.5mx23m) and occupies the southern end of the sloping rear garden of the house. The area seems to have been actively managed in the past, but, apart from some recent branch pruning to the Holm Oak T452, has evidently been left mostly unmanaged for some period.

The small Apple tree tagged 451 is within the garden of number 1A but is just outside the northern boundary of the proposed site.

The tree cover of the site is all relatively young and of comparatively low arboricultural value. The Holm Oak tree T452 is in good physiological condition but is arguably an inappropriate species choice for such a narrow garden. It will require regular pruning or pollarding if its height and spread is to be kept under control.

The other trees include three young Birch (454-456) that have been planted on either side of the steps and two young Sycamores (453 and 458) that have become established through natural regeneration. The Cypress tree tagged 457 is on or close to the boundary with number 1, which is ill-defined in this area.

The Sycamore tree 459 and three young Birch trees (463, 465 and 466) located in the neighbouring garden (number 1) to the east were include because of their potential root spread over the boundary into the site.

6.0 Preliminary Management Recommendations

Preliminary management recommendations for the trees, (under present site conditions) are listed in the survey schedule.

7.0 Site Photographs

Photo 1 View looking south from just outside the site boundary, with Holm Oak T452 to the left

Photo 2 Recently pruned Holm Oak T452 to left, dense shrubs behind and slender young Birch beside steps and path

8.0 Arboricultural Impact of the New Development

The proposed new development will see a new dwelling house constructed in the southern end of the garden. The development will require that the existing sloping ground is excavated back to create the space for the new house and access in from the adjacent road. The extent of the excavation works necessary to facilitate the new layout will require that all the existing vegetation and trees in the lower part of the garden of number 1A will have to be removed. The works will also encroach into the root protection areas of trees T459, T463, T465 and T466 in the neighbouring garden of number 1 to the east; these trees are proposed for removal as part of another planned development. The trees and shrubs proposed for removal are shown in red on the Tree Impact/Protection Plan drawing (22039_TPP). All of the trees proposed for removal are of relatively low arboricultural (all are graded category C) and conservation value. The trees do contribute some landscape amenity, but this is limited due to their relatively small size and low prominence in the local landscape.

9.0 Arboricultural Method Statement

9.1 Tree Work Operations

The trees highlighted on the drawing will be felled and the resulting arisings removed to a licenced green waste facility or recycled as mulch on the site. The trees inside the site being felled are the seven tagged T452-T458, with the trees tagged T459, T463, T465 and T466 in the neighbouring garden also being removed as part of the development planned for the adjoining lands.

All tree surgery work should be carried out by qualified and experienced tree surgeons; and be in accordance with *BS3998 (2010) Tree Work – Recommendations.*

9.2 Tree Protection Measures

Sturdy tree protection fencing (such as Heras or post and rail fencing) or suitable site hoarding will be erected along the lines shown on the Tree Protection Plan Drawing 22039_TPP to prevent construction work activities encroaching towards the trees being retained in the northern part of the garden. The tree protection fencing should be put in place *before* the groundworks and construction works commences and should remain in place until their removal or re-location is authorised by a qualified arborist. It is *essential* that this fencing is positioned correctly prior to any significant site activity commencing to ensure that the tree protection zones are clearly designated and set off-limits to activities likely to be injurious to tree roots and soil structure.

All new underground services such as water, foul water and electricity will be routed away from the RPAs of trees to be retained; where this is not practical the services will be installed under any significant tree roots into trenches excavated by compressed air lance (*Airspade*) or other approved tree root friendly system such as Air-Vacuum truck, Mole drilling etc.

All exposed roots and/or soil profiles containing roots of trees to be retained will be kept damp in dry conditions by regular watering and be covered with a double layer of hessian fabric to prevent desiccation. Backfill should be of good quality topsoil, structural soil or clean sand.

Where machinery access has to encroach the RPAs of the trees to be retained for reasons unforeseen and unavoidable; suitable ground protection will be put in place to prevent any significant soil compaction or root damage near the trees; this should take the form of suitable strength ground protection mats or cellular confinement system capable of supporting the appropriate weight.

All site offices, materials storage, staff parking etc. will located outside of the RPAs of the trees being retained.

The retained trees will be assessed by a qualified arborist following the completion of the construction works.

Some more generalised recommendations regarding tree protection on development sites is included in the appendices below.

10.0 Appendices

Tree Protection on Construction Sites – General Recommendations

Tree Survey Schedule

Tree Survey Drawing 22039_TS (Tree Constraints Plan)

Tree Impact/Protection Plan Drawing 22039_TPP

Tree Protection on Construction Sites – General Recommendations

Trees being retained should be protected from unnecessary damage during the construction process by effective construction-proof barriers that will define the limits for machinery drivers and other construction staff. Ground protected by the fencing will be known as the Construction Exclusion Zone (CEZ). Sturdy protective fencing will be erected along the points identified in the Tree Protection Plan **prior** to any soil disturbance and excavation work starting; this is essential to prevent any root or branch damage to the retained trees. The British Standard BS5837: *Trees in relation to design, demolition and construction (2012)* specifies appropriate fencing; see figure 1 below.

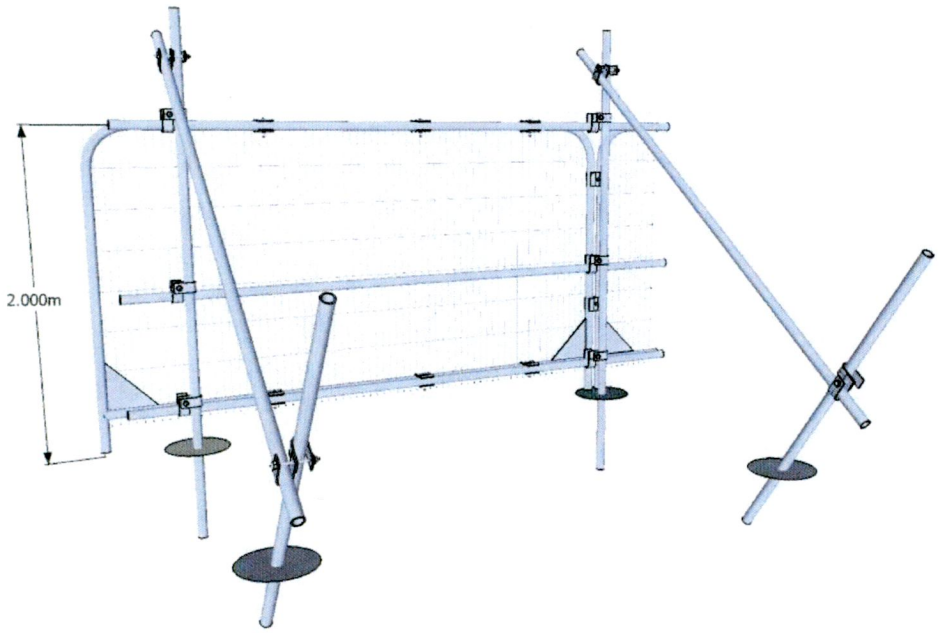

Figure 1. Protective fence specification

For light access works within the CEZ the installation of suitable ground protection in the form of scaffold boards, woodchip mulch or specialist ground protection mats/plates may be acceptable.
All weather notices will be erected on the fence with words such as: "Tree Protection Fence — Keep Out". When the fencing has been erected, the construction work can commence. The fencing will be inspected on a regular basis during the duration of the construction process and shall remain in place until heavy building and landscaping work has finished and its removal is authorised by a qualified arborist.

Trench digging or other excavation works for services etc. will not be permitted in the CEZ unless approved and supervised by a qualified arborist using methods outlined in BS5837: *Trees in relation to design, demolition and construction (2012).*

Care will be taken when planning site operations to ensure that wide or tall loads or plant with booms, jibs and counterweights can operate without coming into contact with retained trees. Such contact can result in serious damage to them and might make their safe retention impossible.

Materials, which can contaminate the soil, e.g. concrete mixings, diesel oil and vehicle washings, will not be discharged within 10 m of a tree stem.

Fires will not be lit in a position where their flames can extend to within 5 m of foliage, branches or trunk. This will depend on the size of the fire and the wind direction.

Notice boards, wires and such like will not be attached to any trees. Site offices, materials storage and contractor parking will all be outside the CEZ.

Tree Survey Schedule
1A The Crescent, Lucan, Co. Dublin
June 2022

Type	No.	Species	Age	Ht m	Dbh mm	St	Cr	N	S	E	W	ERC	Phys Cond	Structural Condition/Comments	Preliminary Recommendations	RPA m	Cat
T	451	Malus domestica (Apple)	EM	4	170	1	2	2	2	2	2	10+	Fair	Fair. Smaller sized tree by small pond in garden area just outside site boundary. Compact form due to young age and previous pruning works. Two other young Apple trees cut back to 1.5m high stumps nearby.	No urgent works needed.	2.04	C2
T	452	Quercus ilex (Holm Oak)	EM	9.5	350	1	2.5	4	3	3.5	2.5	10+	Good	Fair. Garden tree with good vitality. Multiple stems above former pollard point at 2m. Numerous pruning wounds to lower stem from recent branch removal works. Questionable species choice for narrow garden as tree will have to be cut back regularly to control its height and spread.	Prune periodically to maintain as smaller tree.	4.2	C2
T	453	Acer pseudoplatanus (Sycamore)	SM	8	120	1	2	1.5	2	1.5	1.5	10+	Good	Good. Small self-sown young tree that has grown up amongst shrubs. Upright form.	No urgent works needed.	1.44	C2
T	454	Betula utilis (Himalayan Birch)	EM	8.5	160	1	3	3.5	2	1.5	2	10+	Fair	Fair. Smaller sized young tree planted into garden. Slender form. Thick Ivy growth on tree stem.	No urgent works needed.	1.92	C2
T	455	Betula utilis (Himalayan Birch)	SM	8.5	160	1	1.5	1.5	1.5	2	2	10+	Fair	Fair. Fair vitality. Smaller sized garden tree. Slender, upright form.	No urgent works needed.	1.92	C2
T	456	Betula utilis (Himalayan Birch)	SM	9	150	1	3	2.5	2	1.5	1.5	10+	Fair	Fair. Fair vitality. Smaller sized garden tree. Slender, upright form.	No urgent works needed.	1.8	C2
T	457	X Cupressocyparis leylandii Castlewellan	EM	10	300	1	0	2.5	2	2	2.5	10+	Fair	Fair. Conifer planted close to boundary. Mostly upright form, partially suppressed by neighbouring Sycamore trees. Limited value and potential in small garden.	No urgent works needed.	3.6	C2
T	458	Acer pseudoplatanus (Sycamore)	EM	9	361	4	0.5	3	2	3.5	5	10+	Good	Fair. Good vitality. Smaller sized tree self-sown young tree on edge of bank. Asymmetric form due to group competition. Two stems tightly fused together on lower 1.5m.	Cut Ivy and undergrowth around stem base. Inspect stem/basal area.	4.33	C2
T	459	Acer pseudoplatanus (Sycamore)	M	11.5	587	4	2	6	7	7	7	10+	Fair	Fair. Fair vitality. Medium sized tree in neighbouring garden. On edge of steep bank, with restricted access to stem base. Thick Ivy growth on tree restricts view of main branch unions. Twin stem from ground level. Excessive Ivy growth in crown.	Cut Ivy and undergrowth around stem base. Inspect stem/basal area.	7.04	C2
T	463	Betula pendula (Silver Birch)	SM	8	120	1	2	2.5	1.5	0.5	1	10+	Fair	Fair. Small tree planted in neighbouring garden border. Slender form. Slight northerly lean to stem.	No urgent works needed.	1.44	C2
T	465	Betula pendula (Silver Birch)	SM	7	150	1	2	2	1.5	2	2	10+	Fair	Fair. Smaller sized garden tree planted in neighbouring garden border.	No urgent works needed.	1.8	C2
T	466	Betula pendula (Silver Birch)	SM	6	100	1	1	1.5	2	1.5	1	10+	Fair	Fair. Smaller sized garden tree planted in neighbouring garden border. Asymmetric form due to group competition.	No urgent works needed.	1.2	C2