Arboricultural Assessment & Impact Report

Northwood Crescent,
Santry Demesne,
Dublin 9

Project No.	Project name	Date	Revision
TNOR003	Northwood SHD	26/01/22	-

Report Prepared by
Ciaran Keating
BSc Pl. Sci. & Ecol.
H.N.D. Hort
AA Tech Cert Arb,
PG Dip. Arboriculture & Urban Forestry

E-mail: cmkhortandarb@gmail.com
Mobile: 087 1182343
Drumone, Oldcastle, Co. Meath

CMK
Hort + Arb Ltd.

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4. Client brief & Methodology

CMK Hort + Arb were commissioned by Kategale Ltd to undertake a tree survey on the site of a proposed development at Northwood Business Park, Santry, Dublin. The initial fieldwork was undertaken in February 2019 and updated in December 2021.
The initial assessment of trees is designed to be an independent analysis of the trees therefore this assessment does not take into consideration any plans for the future development of the site; however, it is recognised that there are plans to re-develop the site therefore some of the comments within section 2 reference the suitability of trees for retention in this context. The impact of the proposed development is discussed within section 3 of this report.
The survey methodology, supporting drawings and documentation follow the recommendations contained within BS 5837 (2012). The analysis of the trees was undertaken using the VTA methodology as developed by Mattheck and Breloer (1994).

2. General description of trees

The site comprises lands within the Northwood Business Campus on what was formerly part of Santry Demesne (refer to image 1 Site Location). The land has been unmanaged for over 20 years with the result that the area is relatively overgrown in parts by scrub vegetation. However, there are large mature specimen trees within the site which are reflective of the site's origins as a demesne landscape. A detailed analysis of each tree is contained within section 6 of this report with a breakdown of the categorisation of the trees shown within table 1. The locations of trees are shown on drawing TNOR003 101 Rev B.

Image 1. Site location (indicative only)

A total of eleven individual trees were identified and surveyed for this report. The species represented are pedunculate oak (*Quercus robur*), beech (*Fagus sylvatica*), sycamore (*Acer pseudoplatanus*) and alder (*Alnus spaethii*). The oak and beech reflect elements of the Santry Demesne landscape whereas the sycamore have self-seeded with the alder planted as ornamental specimens in a small landscaped are to the south-east of the site.
The condition of the trees is mixed. The oak (#718,719,720) are in good condition overall. However contain defects and areas of decay consistent within older trees. The beech are in mixed condition with #716 in relatively good condition (category B) and beech #717 in decline overall (category C). This is symptomatic of the changed environment which the trees find themselves in and the more delicate nature of beech particularly as they age. The sycamore are young and generally in good condition. They have lower landscape value overall due to their age, size and form and given the propensity for this species to harbour vast colonies of aphids in summer are generally unsuitable for retention in close proximity to structures and paving etc. The alder are well developed specimens within a small landscaped area to the south-eastern edge of the site.

Category	Number	% of total
A	3	25
B	3	25
C	6	50
U	0	0

Table 1. Tree Categories

3. Impact of the proposed development

A number of design revisions have been undertaken on the site which has reduced the impact on existing trees. This has allowed for the retention of all the mature oak and beech and the alder at the south-eastern edge of the site. The early-mature sycamore which are located within the central area of the site will be removed. It is considered that the retention of the more mature trees is a positive outcome of the redesign of the buildings and infrastructure as these trees though presenting challenges in terms of their retention in the context of the development represent something of the history of Santry Demesne.

The challenges to their retention include the close proximity of the buildings and the need for both hard and soft landscaping at the bases of the trees. It has been proposed that no-dig solutions using cellular / modular systems are installed at pinch points to avoid any impacts on tree roots (refer to drawing TNOR003 103 & the Landscape Masterplan for locations).

Tree protection measures are outlined within the Tree Protection Strategy & Method Statement document with the locations of tree protection fencing shown on drawing TNOR003 103. It is proposed that a suitably qualified arborist be appointed to provide guidance to the design and construction teams for the duration of the project with the aim of ensuring tree protection is adequately installed and maintained and works in the vicinity of the retained trees is undertaken appropriately.

4. Limitations of Survey

This survey should be regarded as a preliminary assessment of the trees and deals with the current condition as identified during this survey only. Every attempt was made to identify hazardous trees in this report; however, this survey was carried out from the ground and therefore cannot be held to have identified elements of decay, which may be hidden out of sight within the crown or beneath ivy or other obstructions. To counter this limitation in the survey process it is vital that during tree works any additional defects found by the climbing arborist are communicated to the consulting arborist to allow appropriate action to be taken.

The details within this survey are based on the condition of the trees during the survey period only. The findings in this survey cannot be held to be valid after any site disturbance, man-made or natural, which may have an adverse effect on any trees present.

5. Relevant legislation

There is a Tree Protection Orders ((FCC 1987) which though not accompanied by a drawing indicating individual tree locations is understood to apply to all trees within Santry Demesne including the trees on this site.

Trees may contain bats. Bats are protected under Schedule 5 of the Wildlife Act 1976 and Schedule 1 of the European Communities (Natural Habitats) Regulations 1997. Professional advice from a licenced surveyor should be sought prior to any works commencing on trees.

6. Terminology

Tree categories	
A	Trees of high quality and value due to their size, age, condition, historical/visual merit and/or conservation potential (a minimum of 40 years).
A1	Mainly arboricultural values. Particularly good examples of species, essential components of groups or of formal or semi-formal arboricultural features.
A2	Mainly landscape values. Trees, groups or woodlands which provide a definite screening or softening effects to the locality in relation to views into or out of site, or those of particular visual importance.
A3	Mainly cultural values, including conservation. Trees, groups or woodlands of significant conservation, historical, comparative or other value (e.g. veteran trees or wood-pasture).
B	Trees of moderate quality and value (a minimum of 20 years).
B1	Mainly arboricultural values. Trees that might be included in high categories but are downgraded because of impaired condition (e.g. presence of remedial defects including unsympathetic past management and minor storm damage).
B2	Mainly landscape values. Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal features (e.g. trees of moderate quality within an avenue that includes better A category specimens) or trees situated internally to the site, therefore individually having little visual impact on the wider locality.
B3	Mainly cultural values including conservation. Trees with clearly identifiable conservation or other cultural benefits.
C	Trees of low quality and value (a minimum of 10 years).
C1	Not qualifying in higher categories.
C2	Trees present in groups or woodlands but without conferring on them greater landscape value and/or trees offering low or only temporary screening benefit.
C3	Trees with very limited conservation or other cultural benefits.
U	Trees in such condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management. Trees that are dead, dying or showing immediate and irreversible decline.

Terminology (cont.)

Comments: Refers to the tree's condition and suitability for the site.

Common name: Most widely used non botanical name.

Co-dominant: Two branches assuming the role of leading shoots. When growing close together may form a weak attachment (included bark) at their point of contact. Trees with this defect may be in danger of splitting at this weak attachment.

Crown Spread: Measured in meters north, south, east and west.

Decay fungi: Refers to those species of fungi which degrade living wood and which may, depending on the degree of degradation, render the tree structurally unsound.

Defects: Refers to cracks, storm damage and any other damage mechanical or biological.

Diameter: Diameter of the trunk (millimetres) at 1.5m. M.S. after the measurement refers to the tree being multi-stemmed.

Genus & Species: Refers to the botanical names for the tree.

Height: Measured in meters.

Monitor: Refers to trees which need to be re-surveyed on a yearly basis to assess their condition. This timescale may be sooner where works or adverse weather conditions have impacted negatively on the trees.

Overhaul: A reference to standard tree surgery work which consists of the removal of deadwood, crossing branches and balancing where appropriate.

Recommendations: Indicates surgery work necessary for the retention or, where necessary, removal of the tree.

Tree No. Refers to numbered tag fixed to tree during survey.

7. Tree condition analysis & preliminary recommendations

Tag No.	Species	Age Cat.	General Condition	Comments	Preliminary Recommendations	Category	Useful life expect-any
714	Alder Alnus spaethii	Early-mature	Good	Planted within an open space area. This is a well-developed specimen with no visible defects.	No action necessary	B2	40
715	Alder Alnus spaethii	Early-mature	Good	Planted within an open space area. This is a well-developed specimen with no visible defects.	No action necessary	B2	40
716	Beech Fagus sylvatica	Mature	Good	A large mature specimen located on southern boundary of site. Road and path infrastructure in place within 3.5m and 2m respectively. A large cavity is present in trunk at 1m to north at point of limb loss. Cavity is long-standing and extends into centre of trunk. A large outer core of sound wood exists. There is die-back in upper canopy but this is minimal and unlikely to be significant at present.	Remove elm suckers from base and deadwood	B2	20-30
717	Beech Fagus sylvatica	Mature	Good	A large dominant specimen located toward southern edge of site. A very large cavity is located from base of trunk to 1.5m and extends deep into the centre of tree. Surrounding wood appears sound but this is limited to a relatively narrow outer core only. Light branch deadwood in upper canopy but unlikely to be significant at present.	Monitor	C2	10-15
718	Pedunculate oak Quercus robur	Mature	Good	A relatively well-developed specimen located within a central position in site. Crown relatively limited in extent probably due to competition from neighbouring trees most of which are no longer present. Very heavy ivy growth up trunk obscuring view for assessment. Light branch deadwood in upper canopy but unlikely to be indicative of decline	Cut ivy and re-assess	A3	>40

Tag No.	Species	Age Cat.	General Condition	Comments	Preliminary Recommendations	Category	Useful life expect-any
719	Pedunculate oak Quercus robur	Mature	Good	Located within a central position in site. Crown wide spreading but upper canopy may have been lost in the past. Very extensive ivy growth up trunk obscuring view for assessment. No visible defects	Cut ivy and re-assess	A3	>40
720	Pedunculate oak Quercus robur	Mature	Good	A relatively well-developed specimen located toward northern edge of site. Very heavy ivy growth up trunk obscuring view for assessment. But no visible defects.	Cut ivy and re-assess	A3	>40
721	Sycamore Acer pseudoplatanus	Early-mature	Good	A multi-stemmed specimen self-seeded as opposed to being an element of original demesne landscape. Tight unions between stems but unlikely to be significant at present.	No action necessary	C2	40
722	Sycamore Acer pseudoplatanus	Early-mature	Good	A multi-stemmed specimen self-seeded as opposed to being an element of original demesne landscape. Tight unions between stems but unlikely to be significant at present.	No action necessary	C2	40
723	Sycamore Acer pseudoplatanus	Early-mature	Good	A multi-stemmed specimen self-seeded as opposed to being an element of original demesne landscape. Tight unions between stems but unlikely to be significant at present.	No action necessary	C2	40
724	Sycamore Acer pseudoplatanus	Early-mature	Good	An area of multi-stemmed scrub sycamore. Forming an element of understory cover with some potential outside current environment	No action necessary	C2	40
725	Sycamore Acer pseudoplatanus	Early-mature	Good	An area of multi-stemmed scrub sycamore. Forming an element of understory cover with limited potential outside current environment	No action necessary	C2	40

7.1 Tree measurements

Tree No.	Height m.	D.B.H. mm.	Spread m. N,S,E,W	Clear Stem first cardinal point	Root Protection Diameter m.
714	8	220	4,4,4,4	2N	2.64
715	6	180	3,3,3,3	1.75E	2.16
716	21	900	8,8,5,6	2.5s	10.8
717	20.5	810	5,5,7,5	4W	9.72
718	21	830	4,4,4,4	2.5E	9.96
719	15	820	4,6,4,4	2.5E	9.84
720	20	840	6,5,5,6	4E	10.08
721	8	340	3,3,3,3	NA	4.08
722	8	340	3,3,3,3	NA	4.08
723	8	340	3,3,3,3	NA	4.08
724	8	340	3,3,3,3	NA	4.08
725	8	340	3,3,3,3	NA	4.08

8. References

BS 5837 (2012). Trees in Relation to Design Demolition and Construction

Mattheck and Breloer (1994). The body language of trees