murray & associates
landscape architecture

ARBORICULTURAL INVENTORY AND IMPACT ASSESSMENT

Incorporating a

TREE PROTECTION STRATEGY

At

OMNI PLAZA SHD

FOR

Serendale limited

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ISSUE SHEET

Rev. No.	Issue Status	Date	Prepared By	Checked By
1	For Issue	27.07.21	AG/JW	JW
2	Revisions	23.08.21	JB/JW	JW
3	Revisions	08-10-21	JB	JW
4	Issue	07-12-21	JB/JW	JW
5	For Planning	24-08-22	JB/JW	JW

Introduction

Murray & associates were instructed to complete an arboricultural assessment associated with the proposed development at Omni Plaza SHD, Omni Park, Swords Road, Santry, Dublin 9, a site located to the north west corner of the Omni Park Shopping Centre, Santry and at Santry Hall Industrial Estate.

The trees and hedgerows were surveyed on the 9th June 2021 by the undersigned. It was noted that there are no existing trees within the confines of the site where development will take place. However there are a number of trees proximate to the boundary of the site where the proposed scheme will be built.

Scope

Serendale Limited intend to apply for planning permission for a 7 year period for development at a site located to the north west corner of the Omni Park Shopping Centre, Santry and at Santry Hall Industrial Estate, Swords Road, Dublin 9 D09FX31 and D09HC84.

The lands primarily to the north west corner of Omni Park Shopping Centre, Santry and at Santry Hall Industrial Estate, Swords Road, Dublin 9 D09FX31 and D09HC84. The lands primarily comprise the former Molloy & Sherry Industrial / Warehouse premises and lands generally to the north west corner of the Omni Park Shopping Centre including revisions to part of existing surface carpark to facilitate a new public plaza. The site is c.2.5 ha in size and located primarily to the west of Lidl and to the north and east of the IMC Cinema within the Omni Park Shopping Centre and east of Shanliss Avenue.

The proposed development comprises:

- The demolition of existing buildings (including 2 no. ESB sub stations) and the construction of a mixed use residential (457 apartments) and commercial development ranging in height from 4 to 12 storeys over basement in four blocks, with internal residential amenity space, childcare facility, community building and two retail/café/restaurant units.
- The overall residential unit mix proposed comprises:
    - 1 no. studio apartment (c.0.2%),
    - 221 no. 1-bed apartments (c.48%),
    - 211 (c.46%) no. 2-bed apartments
    - 24 (c.5%) no. 3-bed apartments.
- The residential Blocks are broken down as follows:
    - Block A: comprises 83 No. units from 4 to 8 storeys in height;
    - Block B: comprises 76 No. units from4 to 8 storeys in height;
    - Block C: comprises 165 No. units from 9 to 12 storeys in height;
    - Block D: comprises 133 No. units from 10 to 11 storeys in height;

- The proposed development will also provide for: 2 no. retail/café/restaurants totalling 430.9 sq.m; 1. no residential amenity space of 604.9 sq.m; 1 no. creche of 225.7 sq.m. (plus playground of 210 sq.m.); and 1 no. community space of 195.3 sq.m.
- Public realm improvements and amenity facilities to include:
    - Upgrade of existing footpaths to provide 2 no. new shared surface access routes through the existing Omni Park Shopping Centre development providing direct access for pedestrians and cyclists to the subject development from the Swords Road and Omni Park Shopping Centre.
    - Provision of a new public plaza to the northeast corner of Omni Park Shopping Centre, providing access to the Swords Road including pedestrian and cyclist access route (as substantially permitted under planning permission ref: ABP-307011-20).
    - Provision of a new public plaza to the northwest corner of existing Omni Park Shopping Centre integrating the proposed development with the existing district centre lands, provision of which shall require amendments to existing carpark layout and a reduction of 104 no. existing commercial car parking spaces.
    - Public and communal open spaces (incl. 2 no. playgrounds) and internal communal residential amenity for the residential development and private residential amenity in the form of terraces and balconies to all elevations.
- The development will include provision of access to a basement via a ramp to be located within the Omni Park Shopping Centre development proximate to the IMC Cinema. The provision of 768 no. bicycle parking spaces (504 at basement and 264 at surface). The provision of 213 no. basement car parking spaces including 11 No. accessible spaces and 22 No. EV charging points. In addition, 7 no. motorcycle parking spaces are provided at basement.
- The development also entails the reconfiguration of existing car parking to the northwest of Omni Park Shopping Centre with a net reduction of 104 no. commercial car parking spaces to allow for the provision of a new public plaza. Reconfiguration shall provide for the provision of 7 no. creche drop-off spaces and 6 no. carshare spaces to facilitate the proposed development.
- Emergency services / servicing access to the rear of existing retail premises at Omni Park Shopping Centre from the Swords Road.
- Provision of 5 no. ESB Substations including the relocation of an existing substation.
- All associated and ancillary site development, demolition and clearance works, hoarding during construction, revisions to car parking within the Omni Park Shopping Centre, soft and hard landscaping, public realm works, public lighting and signage, ancillary spaces, plant including photovoltaic panels, water infrastructure, utilities and services.

The report should be read in conjunction with the following drawings:

Landscape Masterplan (REF: **1863_PL_P_01.1**);
Tree Survey (REF: **1863_TS _P_01**)

Proposed Development

The proposed development will entail the construction of a mixed use scheme on an area of the site currently occupied by industrial units and hardstanding.

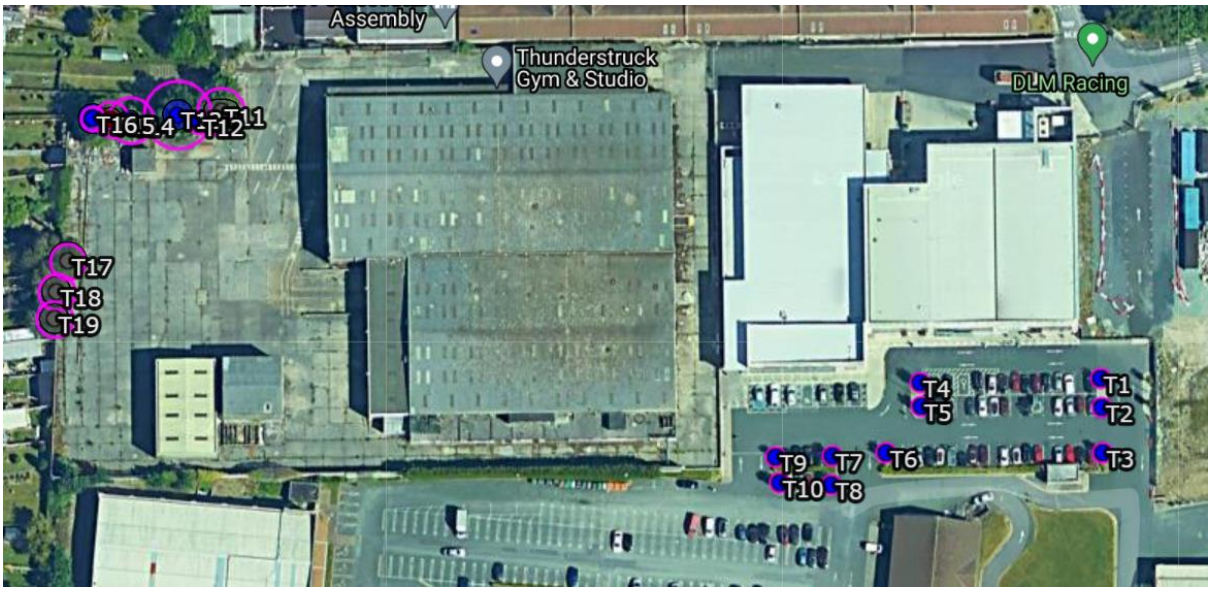

Figure 1 – Site location plan

Methodology Employed

An initial tree survey and visual condition assessment was carried out on the 9th June 2021. All surveyed trees are located outside of the development area but located proximate to the site boundary. For the purpose of this report the trees were assessed in accordance with BS 5837: 2012 Trees in relation to design, demolition and construction. Only trees with diameters of 75mm or greater were surveyed, and those smaller than this were noted in the survey. In accordance with section 4.4.2.3 of the British standard document where trees formed obvious groups these were assessed and recorded as groups.

Section 4.4.2.3 of BS 5837: 2012 states:

Trees growing as groups or woodland should be identified and assessed as such where the arboriculturist determines that this is appropriate. However, an assessment of individuals within any group should still be undertaken if there is a need to differentiate between them, e.g. in order to highlight significant variation in attributes (including physiological or structural condition).

NOTE: The term “group” is intended to identify trees that form cohesive arboricultural features either aerodynamically (e.g. trees that provide companion shelter), visually (e.g. avenues or screens) or culturally, including for biodiversity (e.g. parkland or wood pasture), in respect of each of the three subcategories.

Tree Survey Methodology

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 were recorded as:

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	Reached full maturity now declining through natural causes
Vet	Veteran	Notable due to large size, old age, ecological importance

Tree Physiological and Structural 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 condition.

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.

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.

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)

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

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

The survey concentrated primarily on the significant trees located close to the development area. There are some mature trees which are situated on adjoining lands bounding the proposed development site and for the purpose of completeness these were assessed.

The objective of this survey was to gather information regarding the tree's location on the proposed development site and the impact the proposed development may have on the trees. Please refer to appendix 1 for the tree inventory. Significant trees can be equated as those trees whose visual importance to the surrounding area is enough to justify special efforts to protect/preserve and whose loss would have an irremediable adverse impact on the local environment. Significance can also be placed depending on the trees age, another variable to imply significance can be the aesthetic merit of the tree based on its unusual size, intrinsic physical features or outstanding appearance or occurring in a unique location or context, and thus provides a special contribution as a landmark or landscape feature.

Tree diameters (DBH) were estimated at 1.5 meter above grade as per standard arboricultural practice. Tree height was measured with the use of a digital clinometer. The trees were categorized in accordance with BS5837:2012.

Tree Survey Results

Category	Number of trees	Trees to be removed
A	0	0
B	14	5
C	4	0
U	1	0

Table 1. Category of the Trees Surveyed (BS 5837:2012, Item 4.5 Tree categorisation method)

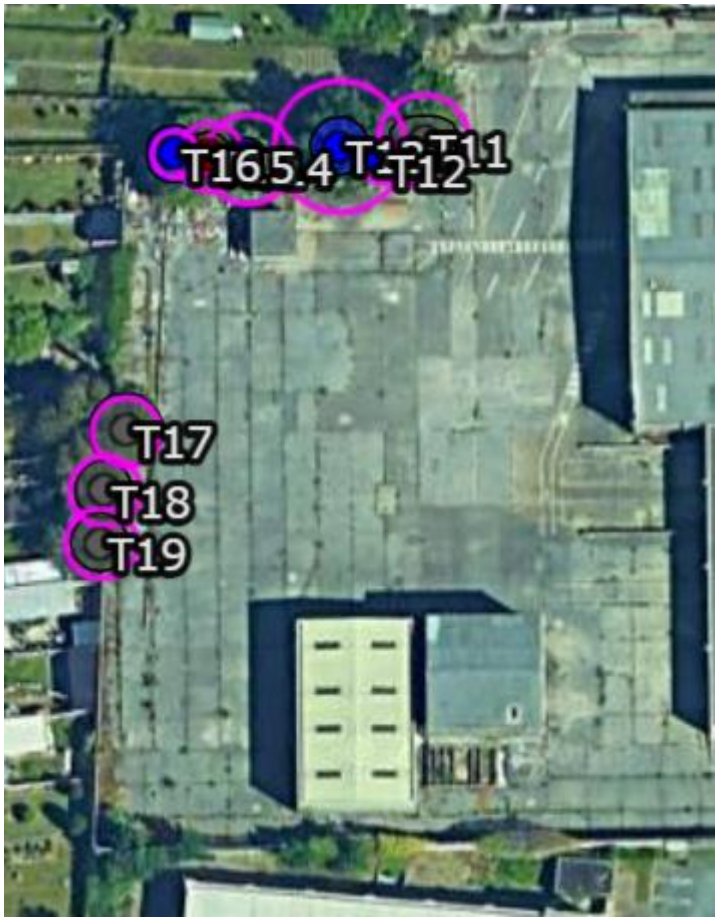

Figure 1a. Geomap of site location with plots of the existing trees outside of site boundary

Figure 1b. Geomap of site location with plots of the existing trees within the car park area

Fig 1c – Map of new configuration of the area

The main areas of impact to trees will be the trees located in the car park islands within the existing retail centre. This reconfigutation provides for more pedestrian space for circulation, and is a minor impact which will be more than offset by the new tree planting throughtout the scheme. The trees along the boundary will be unaffected by the proposed development. As there are extensive areas of hardstanding within the site it is unlikely that there are any roots of these trees within the development area.

As the retained trees will be contained within a live car park it is not considered that tree protection measures are appropriate.

Conclusions

It was determined that there will be no direct impact arising from the proposed development to the trees T10-T19 located to the west and north west external boundary of the site. Given there are extensive areas of hardstanding within the site, it is unlikely that there are any roots of trees within the development . The impact of the proposed development will therefore be negligible. In relation to the trees on the car park islands, these trees will be replaced with equivalent trees.

The proposed envisages a large number of new tree planting within the subject site, so in conclusion the net effect to the existing tree cover will be positive.

BS5837:2012 Table 1 – Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
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; see [BS5837:2012]* ***4.5.7****.*			
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
Trees to be considered for retention				
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	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)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	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	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	Trees with material conservation or other cultural value	
Category C **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	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	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 benefi	Trees with no material conservation or other cultural value	

Tree Survey Tables

Tree #	Species Botanical name	Size dia. (mm)	HT. (m)	Crown Sp.				Condition	Structural/ Physiological Observations &PMR	Impact of development	Category
T1	Quercus ilex	180	6	1.2	1.3	1.3	1.3	Good	Good	(removed as per Omni Living)	B3
T2	Quercus ilex	180	6	1.2	1.3	1.3	1.3	Good	Good	(removed as per Omni Living)	B3
T3	Quercus ilex	180	6	1.2	1.3	1.3	1.3	Good	Good	remove	B3
T4	Quercus ilex	180	6	1.2	1.3	1.3	1.3	Good	Good	retained	B3
T5	Quercus ilex	180	6	1.2	1.3	1.3	1.3	Good	Good	retained	B3
T6	Quercus ilex	180	6	1.2	1.3	1.3	1.3	Good	Good	retain	B3
T7	Quercus ilex	180	6	1.2	1.3	1.3	1.3	Good	Good	remove	B3
T8	Quercus ilex	180	6	1.2	1.3	1.3	1.3	Good	Good	remove	B3
T9	Quercus ilex	180	6	1.2	1.3	1.3	1.3	Good	Good	remove	B3
T10	Quercus ilex	180	6	1.2	1.3	1.3	1.3	Good	Good	remove	B3
T11	Acer pseudoplatanus	450	16	4		3.5	4	Fair	Fair	not in site	C1
T12	Chamaecyparis lawsoniana	220	8	1.2	1.2	1.2	1.4	Fair	Fair	not in site	B3
T13	Quercus robur	650	14	3.5	3.5	3.4	3.4	Good	Good	not in site	B1
T14	Acer pseudoplatanus	440	12	2.2	2.3	2.3	2.4	Fair	Fair	not in site	B2
T15	Fraxinus sp.	340	12	2.8	2.7	2.5	2.5	Dead	Poor	not in site	U
T16	Prunus domestica	230	7	3.2	3.4	3.4	3.2	Good	Good	not in site	B3
T17	Fraxinus sp.	340	11	4.5	4.4	4.3	4.2	Poor	Poor	not in site	C3
T18	Prunus sp.	350	11	3.2	3.5	3.3	3.4	Fair	Fair	not in site	C1
T19	Prunus sp.	350	11	3.2	3.5	3.3	3.4	Fair	Fair	not in site	C1

Disclaimers

This report is intended solely for the benefit of the parties to whom it is addressed, and no responsibility is extended to any third party for the whole or any part of its contents. The conclusions and recommendations in this report are only valid for a period of one year. This period of validity may be reduced in the case of any change in conditions to or in proximity to the tree. In the event of adverse weather conditions, there is the possibility of any tree despite good report surveys, falling over.

In the event of a falling tree causing damage to residential or non-residential buildings in their proximity, no liability will attach to this firm, in the event of damage by such trees, to any person, any building public or private, or any mechanical vehicle or otherwise. Recommendations made in this report are subject to the knowledge and expertise of the qualified Arborist that carried out the above inspections.

Signed John Ward

Dated: 24th August 2022

John Ward

ISA Certified Arborist