

Arboricultural Assessment
(Tree survey)

To assess the trees

On the site at

Glenamuck Road
Carrickmines
Dublin 18

March 2022

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PART ONE – ARBORICULTURAL ASSESSMENT

Introduction

The purpose of this report is to set out the findings following the inspection of the site at **Glenamuck Road, Carrickmines, Dublin 18**. set out their condition. The survey work was undertaken on the 12th March 2021 and update in February 2022 by the undersigned a qualified arboricultural consultant. The terms of reference for the report is item a planning application on the site. The following categories have been used within the tree report tables and, where appropriate, the criterion used to define each category is defined.

- **Tree No.** : refers to the identification tag attached to a tree [also identified as such on the accompanying survey drawing]
- **Species** : refers to the common and scientific name given to the tree.
- **Stem diameter** : refers to the diameter of the tree stem in millimetres, as measured at 1.5 metres above ground level and above the root flare for multi-stemmed trees.
- **Height** : refers to the total height of the tree in metres.
- **Crown spread** : refers to the width of the crown in metres, measured at each cardinal point on the compass.
- **Condition** : refers to the physiological condition of the tree as a whole described as:
 - Good** – Full healthy canopy but possibly including some suppressed or damaged branches
 - Fair** – Slightly reduced leaf cover, minor dead wood or isolated major dead wood
 - Poor** – Overall sparse leafing or extensive dead wood
- **Age** An estimation of the age of the tree described as;
 - V- Veteran, trees, which by recognized criteria, show features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to individuals surviving beyond the typical age range for the species concerned.
 - OM – Over Mature, trees reaching the end of their life, in decline and senescent.
 - M – Mature, fully grown, with only small annual increments.
 - EM – Early Mature, one-third to two thirds of total life expired.
 - Y – Young, recent planting, with up to one third of total life expired.

- **Remarks:** Descriptive comments about the health (physiological) or form (structural) of the tree, its environment or external influences and may include preliminary management recommendations.

Category grade

- **U** -Those trees in such a condition that any existing value would be lost within 10years and which should be in the correct context, be removed for reasons of sound arboricultural management.
 - **A** -Those trees of a high quality and value in such a condition as to be able to make a substantial contribution.
 - **B** - Those trees of a moderate quality and value in such a condition as to be able to make a significant contribution.
 - **C**- Those trees of a low quality and value currently inadequate condition to remain until new planting could be established, or young trees with a stem diameter below 150mm
-
- **Estimated remaining contribution in years (ERC):** Expressed as less than 10, 10+, 20+, more than 40

Glossary of terms used:

Basal: The base of the tree close to the ground, (basal shoots are those emanating from the base).

Crown (canopy): The leaves and branches of a tree.

Co-dominant: Stems or branches of near equal diameter, often weakly attached.

Decay: Degradation of wood by fungi and/or bacteria.

Defect: Any feature of a tree which detracts from the uniform distribution of mechanical stress, or which makes the tree mechanically unsuited to its environment.

Dieback: The death of part of a plant, usually starting from a distal point and often progressing in stages.

Epicormic : Pertaining to shoots or roots, which are initiated on mature woody stems; shoots may form in this way from dormant buds or they may be adventitious.

Included Union: bark of adjacent parts of a tree (usually in forks, acutely angled branches or basal flutes), which is in face-to-face contact, so that there is weakness due to the lack of a woody union.

Lean: Departure of the trunk from the vertical.

Scaffold limbs: The branches, which form the main framework of the crown of a tree with a decurrent growth habit.

Shoot: A shoot derived from a dormant or adventitious bud on the main stem or branch.

Stub/peg: A short section of a branch, which may have, been left after previous pruning or storm damage.

Wound: Injuries on the surface of a trunk or branch.

Full: A canopy, which extends to the ground or nearly to the ground

Natural suppressed deadwood: Deadwood in conifers, which died as the crown height extended and the lower branch no longer have a function in the production of foliage.

Pathogens: Fungal and /or bacterial infections, which degrade the wood and render trees liable to failure

Wound wood: Wood with atypical anatomical features, formed in the vicinity of a wound or the occluding tissue around a wound

Hazard Limb: An upwardly curved part in which strong internal stresses may occur, cause wood to crack

Burr: Woody protuberances, especially those derived from the mass proliferation of adventitious buds.

Survey Results

There are no trees on the applicant site. As there are no trees on the site, consequently there is no tree survey schedule.

The location of the young trees on the boundary of adjacent sites have been plotted, and their dbh and crown spreads are estimates as per 4.4.2.6 c) – BS 5837:2012. They have been indicated on the constraints plan.

A detailed tree survey of trees on adjacent sites within falling distance of the applicant site cannot be undertaken, as entering the lands and tagging and measuring the trees could be considered criminal damage and contrary to the Criminal Damages Act 1991.

Boundary A

This boundary is defined a concrete block wall, in part overgrown with ivy. In the adjoining garden, behind the wall are mature shrubs and trees which include Alder and Birch, with Pine, Cypress, Eucalyptus, Bamboo and Griselinia.

Boundary B

This boundary is defined by a chain link fence, on the adjoining property are early mature trees; Copper beech, Norway maple x 2, Copper beech, Cypress, Oak, a beech hedge and a Sycamore. Within the garden are eight recently planted Leyland cypress.

**TREE SURVEY | SITE AT, GLENAMUCK ROAD,
CARRICKMINES, DUBLIN 18**

Boundary B looking east and west



**TREE SURVEY | SITE AT, GLENAMUCK ROAD,
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Boundary C

This boundary has a chain link fence and Beech hedge, inside the hedge are nine Rowan, a Horse chestnut, a Beech and an Atlas cedar. There are also twelve recently planted Leyland cypress.

Boundary D

Set back in the adjoining property is a mature Walnut, the boundary is defined by a mature Griselinia hedge on the neighbours property, which has been cut back and trimmed. At the western end set back on the opposite side of a drive way are three mature Sycamore.



Boundary D, looking east at Boundary C.



Boundary D looking west

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CARRICKMINES, DUBLIN 18**

Boundary E

This boundary is a concrete block, rendered wall.

Boundary F

This is the northern boundary of the property at Stafford Lodge, there are nature and early mature trees; an Ash infected with ash die back (*Hymenoscyphus fraxineus*) and in decline, an old Hawthorn with significant dieback. A red horse chestnut with dense ivy cover. There is a Lonicera hedge with Elder, Griselinia and Cherry-laurel. Near the house is an early mature Ash, at the eastern end are three cherry and a section of Cherry-laurel hedge.



Boundary F, looking east.

Boundary G

This is a poorly defined boundary with dense bramble and Cherry-laurel with Lonicera. Set back in the garden is a mature Cherry.

Boundary H

This boundary is defined by a Herras panel fence.

Assumptions and Limitations

This tree survey was carried out from the applicant site; a detailed assessment of the trees on adjacent sites was not possible. The condition of the trees and their useful life expectancy cannot be confirmed. However none of the trees had obvious signs of pests or diseases.

There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the trees in question may not arise in the future. The author takes no responsibility for any actions taken by the landowner or their agents by reasons of this report unless subsequent contractual arrangements are made. In the event of adverse weather conditions, there is the possibility of any tree, despite having a good report, falling over or suffering crown damage. In the event of a falling tree causing damage to residential or non-residential buildings in their proximity, or to any person, any property public or private, or any mechanical vehicle or otherwise no liability will attach to this firm.

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. All trees mentioned in this report should be subject to a detailed assessment by the adjacent landowners every two years to assess physiological and environmental changes.

PART TWO - ARBORICULTURAL IMPACT ASSESSMENT

General Description of Site and Surroundings

The site is an open field with neglected grassland. To the north is a residential property 'Tullybeg', and an access drive to 'Chigwell', the northern boundary is defined by a chain link fence and a hedge of Griselinia. The boundary to the west, Glenamuck Road is defined by a rendered block concrete wall. To the east is 'Chigwell' house, Bridgefield House and 'Tofino', the latter two properties being within Brennanstown Vale. To the south of the site are the residential properties; Stafford Lodge and CarrickCáil. Around the boundary of 'Chigwell' house and its boundary to the site is a chain link fence and beech hedge with young trees; Rowan, Cedar, Maple, Beech and Sycamore. The boundary to Bridgefield house is a block wall; there are young Birch in the garden. The boundary to 'Tofino' is defined by a post and rail timber fence with young trees and shrubs which include; Pine, Cypress, Hawthorn, Elder, Bamboo, Griselinia, and Eucalyptus. The southern boundary to Stafford lodge has a boundary defined by a poorly managed hedge of Lonicera, Elder and Cherry-laurel. There are also Cherry, Ash and Horse chestnut trees.

Description of Proposed Development

The development comprises a strategic housing development on an overall site of c. 0.92 ha (c. 0.74 ha relates to the main development site and c. 0.18 ha relates to additional lands for drainage and access proposals) at Glenamuck Road North, Carrickmines, Dublin 18 (bounded by 'Tullybeg' to the north, 'Chigwell' to the northeast, 'Stafford Lodge' to the south and 'CarrickCáil' to the southeast).

The proposed development shall provide for the construction of (a) 118 no. residential apartment units in the form of 3 no. residential blocks of apartments ranging in height from 4 storey's and transitioning to 6-7 storeys overall.

The overall development proposal shall provide for the following:

- Block A (7 storeys) comprising 44 no. units (13 no. 1 bed units, 28 no. 2 bed. units and 3 no. 3 bed units);
- Block B (6-7 storeys overall) comprising 38 no. units (11 no. 1 bed units, 26 no. 2 bed units and 1 no. 3 bed units); and
- Block C (6 storeys overall) comprising 36 units (10 no. 1 bed units; 22 no. 2 bed units and 4 no. 3 bed units);

Each new residential unit has an associated area of private open space in the form of balcony / terrace area and set back upper floor levels. Open space (approx. 2,071 sqm) is provided by one major centrally located public open space (1158.4 sqm) between blocks A and B which include a play area of 63.2 sqm, two further communal open space areas are provided adjoining Blocks B (471.8 sqm) & Block C (440.8 sqm). Communal Area located at the ground floor of Block B (approx. 161.3 sqm) comprising of a shared working space (35.6 sqm), meeting rooms (42.2 sqm.), a gym (36.6 sqm) and changing/tea stations (46.7 sqm) is also proposed.

2 no. basement level areas (approx. 2,340.9 sqm) are also proposed at lower ground / ground floor level of Blocks A, B (1,470.0 sqm) and C (834.9 sqm) and include car parking, bicycle parking, refuse storage areas, plant areas and ESB Substation which is located between Block B and C.

A total of 103 no. car parking spaces (67 no. at basement level and 36 no. at surface level to include 17 no. electric power points and 5 no. accessible parking spaces) are proposed. In addition, 5 no. motorcycle parking spaces (3 no. at basement level A and B, and 2 no. at basement level C). A total of 280 no. bicycle parking spaces (254 no. at basement level and 26 no. at surface level) are also proposed. Proposals for vehicular and pedestrian access comprise via Glenamuck Road North and all associated upgrade works; The access point to the south (via Carricáil) is for pedestrians and cyclists only.

Associated site and infrastructural works including the provision for water services, foul and surface water drainage and connections; attenuation proposals; permeable paving; all landscaping works to include new tree and hedge planting; green roofs; boundary treatments; internal roads and footpaths; and electrical services.

Designations Relating to Trees

There are no trees on the site. There are no Tree Preservation Orders on the trees on adjoining sites. There is no objective in the County Development plan to protect and preserve trees and Woodlands at locations within or adjoining the site.

Implications of Proposed Development

No trees are to be removed to facilitate the proposed development.

There are six trees outside boundary B on the adjoining property; a Copper beech, Norway maple x 2, Copper beech, Cypress and an Oak, they are indirectly affected by the proposed carpark bays and the proposed new boundary wall; special measure will be taken to protect the trees, see part three Arboricultural Method statement.

Trees inside the adjoining property of boundary F are a Horse Chestnut and Sycamore and Blue cedar, they potential impacted by the footpath and the proposed new boundary wall. The recently planted trees will not be impacted by the proposals. Special measure will be taken to protect the trees, see part three Arboricultural Method statement.

To the north is an access drive to the property 'Chigwell', the northern boundary is defined by a chain link fence and a hedge of Griselinia. Near the entrance are a stand of three Sycamore. This fence is being replaced with a Stone wall and railing. The Theoretical Root Protection Area as calculated by clause 4.6 of BS 5837 : 2012 extends as far as the boundary, The drive is a constructed road with a tarmac surface. It is very unlikely that there is any significant root development beneath the drive.

To the south, inside the boundary of the adjoining property are a Red Horse Chestnut, and two mature Cherries. Their Root Protection Areas extend into the site. The proposals include a new access road with both surface and foul sewers, it is also proposed to constructed a new boundary wall. Special measure will be taken to protect the trees, see part three Arboricultural Method statement.

Along boundary G is a mature Cherry, inside the site is a proposed Attenuation tank. The tank is not likely have any impact on this tree.

Potential Nuisance

The proposed development is being constructed on a site with no trees, there will no risk of potential nuisance from the trees and hedges on adjacent sites.

Construction Implications

General precautions in storage or mixing of materials that may be injurious to trees on adjacent sites will need to be taken. All toxic materials, (cement, mortar, bitumen, diesel, bonding agents, etc) will be stored 10m from root protection areas. No wash out facilities will be provided for ready mix concrete/mortar deliveries. All fuels stored on site will be bunded to prevent spillage or leakage.

Proposals for tree management

There are no proposals for tree management of trees on adjacent sites.

PART THREE - ARBORICULTURAL METHOD STATEMENT

Introduction

This document sets out the methodology for all proposed works that affect trees on and adjacent to the site. Compliance with this method statement will be a requirement of all relevant contractors associated with the development proposals. Copies of this document will be available for inspection on site. The developer will inform the local planning authority within twenty-four hours if the arboricultural consultant is replaced.

The contractor shall take all precautions to ensure that any trees, which are to be retained, shall remain undisturbed and undamaged.

All works to trees and all operations adjacent to trees should be undertaken in accordance with the Method Statement. The contractor shall undertake no works to trees unless instructed by the Contract Administrator. All works within or close to the protected tree zones are to be supervised by the appointed Consultant Arboriculturalist. Two working days' notice of intention to undertake such works to be given prior to any works commencing.

Root Protection Area

In accordance with the Method statement and as per the issued drawings protective fences shall be erected before the commencement of building works any works on site (other than remedial tree works and erection of the boundary fence). The area within the tree fencing should be clearly identified with signage as the 'Protected Tree Zone'. The local planning authority will be notified in writing once the fencing is in place. Strictly no access should be permitted to this zone unless instructed by the CA. The appointed Consultant Arboriculturalist should be notified of any works or access to this zone. The fencing will remain in place until completion of the main construction phase and then only removed with the consent of the local planning authority to permit completion of the scheme.

Other than works detailed within this method statement or approved in writing by the local planning authority, no works including storage or dumping of materials shall take place within the exclusion zones defined by the protective fencing. No fires should be lit close to or within 20 metres of the trunk of any tree that is to be retained. No materials that are likely to have an adverse effect on tree health such as oil, bitumen or cement will be stored or discharged within 10 metres of the trunk of a tree that is to be retained.

Code of Practice for the preservation of trees

The following code of practice is intended for the preservation of existing trees. These guidelines will help sustain vigour and minimise adverse growing conditions, for trees set out for retention.

This code will be brought to the attention of all site personnel including Main Contractor, sub-contractors and engineering specialists associated with the project. As appropriate this method statement should be translated. All operations are to be in accordance with BS 5837: 2012, *Trees in relation to design, demolition and construction*. The main contractor should purchase and make available on site a copy of the above.

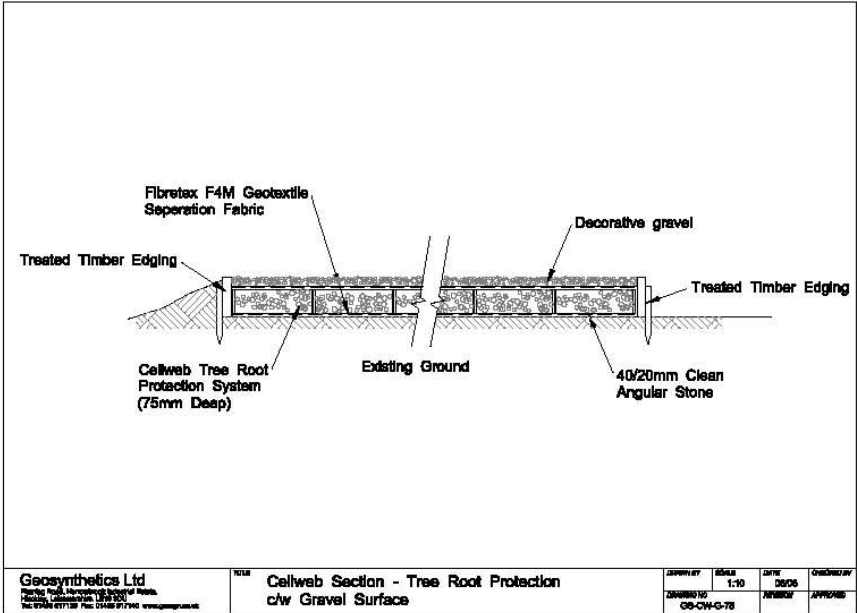
The Arboricultural Consultant will:

- Liaise with the relevant authorities during the project.
- Constantly monitor the project with regard to tree health to ensure that no damage is caused to the subject trees during the operational works.
- Report any negligent damage to trees, which will prejudice their health.
- Monitor works carried out by the Arboricultural Contractor and Main Contractor within the 'Root Protection Area'.

Construction access

In areas where there is site access, permanent car parking, footpaths and access for construction near trees, the ground shall be covered with Fibertex or similar geo textile fabric and a three dimensional cellular confinement system such as geoweb should be laid over the fabric. Where access is required within the root protection area of trees a cellular confinement system shall be put in place prior to use of the area. See construction detail attached.

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CARRICKMINES, DUBLIN 18



The construction of part of the road is within the Root protection area of trees, the construction shall be undertaken using a no dig method, a minimum amount of top soil shall be removed, and existing ground level shall be maintained. Once the soil is graded and lightly compacted it shall be over laid with geo fabric and a 3 dimensional cellular confinement system. Paving within root protection areas shall be in accordance Clause 7.4 of BS 5837 : 2012.

Guidelines for installation of services

Where it is proposed to route underground services near trees all works shall be carried under the supervision of the consultant Arboriculturalist. Guidelines set out in the NJUG(National Joint Utilities Group) Volume 4, Guidelines for the planning, installation and maintenance of utility services in proximity to trees – 2007 will be followed together with section 7.7 Underground and above-ground utility apparatus.

Mechanical trenching for the installation of underground apparatus and drainage severs any roots present and can change the local soil hydrology in a way that adversely affects the health of the tree. For this reason, particular care should be taken in the routing and methods of installation of all underground apparatus. Wherever possible, apparatus should be routed outside RPAs. Where this is not possible, it is preferable to keep apparatus together in common ducts. Inspection chambers should be sited outside the RPA.

7.7.2 Where underground apparatus is to pass within the RPA, detailed plans showing the proposed routing should be drawn up in conjunction with the project arboriculturist. In such cases, trenchless insertion methods should be used (see Table 3), with entry and retrieval pits being sited outside the RPA. Provided that roots can be retained and protected in accordance with **7.2.2**, excavation using hand-held tools (see **7.2.1**) might be acceptable for shallow service runs.

NOTE : The suitability of these for differing applications is summarized in Table 3. (BS 5837 : 2012)

Hard Landscaping within the protection zone (footpath and Car parking)

Where permanent hard landscaping is to be provided within root protection zones, special measure shall be implemented. All existing hollows/ drains shall be filled with 50mm crushed stone, with no fines, and then over laid with geo fabric and a cellular confinement system. The path will be worked around the stems of existing retained trees, so as to preserve existing ground levels. Paving within root protection areas shall be in accordance with APN 12 (2007). See appendix 2 for details.

Boundary wall construction.

Where the new boundary wall is close to trees on the adjoining properties, the root area will be spanned using a ground beam, see landscape Architects drawings for detail.

Guidelines for Root Pruning:

- Roots smaller than 25mm diameter may be pruned back, roots with a diameter greater should only be cut following consultation with an arboriculturist.
- Roots should be cut cleanly after excavation to promote callus formation and wound closure.
- Exposed roots to be protected where an area of work is to be left open, particularly along the face of the excavation for the underground car parking. In winter, exposed roots are to be wrapped with dry sacking overnight.
- In summer, exposed roots are to be covered with damp sacking at all times. A suitable irrigation / drip feed system should be installed to keep sacking wet at all times.
- Back filling materials used around roots are to be of a fine granular material with no toxins and not susceptible to frost heave.

Offences and Penalties

Any damage whatsoever, caused to the protected trees shall be notified to JM McConville + Associates, so that the damage can be assessed and rectified and the main contractor subject to financial penalty as per the Conditions of Contract. Value of damaged tree will be assessed using the 'Helliwell System'.

Supervision and Monitoring

The arboricultural consultant will be responsible for monitoring of all arboricultural works and issuing a certificate of practical completion. In addition, the arboricultural consultant will inspect the protective fencing and monitor any works within exclusion zones.

A record of site visits will be maintained for inspection on site and copies forwarded to the developer / agent and to the local planning authority. The Contractor shall not fell any trees under any circumstances. All works within the protected tree zones are to be supervised by the arboricultural consultant.

Tree Protection Barrier Fencing

Tree protection barriers are to be in accordance with BS 5837:2012, clause 6.2. Barrier fencing to be 2.0 m high, comprising of 'Herras' style fence, each panel to be secured to the adjoining panel fixed to scaffold poles in with a minimum of 2 anti-tamper couplers, installed so that they can only be removed from inside the fence. The panels are to be supported by stabilizers struts on the inside. Barrier fencing is to be installed to an agreed alignment. The Alignment is to be marked out on site and approved by the arboricultural consultant prior to erection of the barrier fencing. 'Construction Exclusion Zone' signage to be securely attached to the fence. Barrier fencing is to be maintained by the main contractor for the duration of the contract. All damage to be reported immediately to the Arboricultural consultant. Damaged fencing is to be repaired within 2 hours

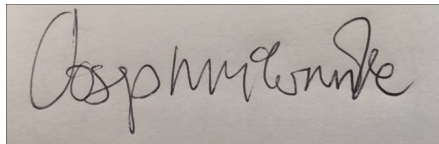
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of the damage occurring to the satisfaction of the Arboricultural consultant.

All site operations in the vicinity of the damaged fencing are to be suspended until the fencing is repaired. During site inspections the Arboricultural consultant reserves the right to authorise the cessation of all works in proximity to the protected zones with immediate effect. A breach of such an instruction will be deemed to be a dismissible offence for the employee. As contract work progresses the protective barrier fence can only be adjusted under the supervision of the arboricultural consultant.



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