



Tree Management Services

Arboriculture, Landscape and Forestry Consultants

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Our Ref: TMS.LD.05.24.01

Ref:

Date: 27th. August 2024

Report Title: Arboricultural Tree Survey Report

Project: Title: Proposed Large Scale Residential Development at
“Gowan Motors Compound” site, Merrion Road, Dublin 4.

Applicant: 1 Merrion Compound Land Limited

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1. Introduction:

- 1.1 We have been commissioned by McGill Planning Ltd. Of 22 Wicklow Street, Dublin 2 on behalf of the Applicant 1 Merrion Compound Land Limited to carry out this Arboricultural Tree Survey Report at "Gowan Motors Compound" site, Merrion Road, Dublin 4.

2. Report Assumptions and limitations:

- 2.1 This Arboricultural Tree Survey is limited to existing trees growing within the site application area and one London Plane street tree growing on public lands at the entrance to the site. .
- 2.2 The tree assessments were carried out from the ground as a visual survey. It does not include climbing inspections of the tree crowns, invasive or below-ground inspections, To counter these limitations, it is vital that during Tree Works or Aerial Inspections, any additional defects found by the climbing Tree Surgeon be communicated to the Consulting Arborist to allow appropriate action to be taken.
- 2.3 Any tree, whether it has visible weaknesses or not, will fail if the force applied exceed the strength of the tree or its parts. Only those trees specified in the scope of work were assessed and assessments were performed within the limitations specified. Our tree risk assessments represent the condition of the trees at the time of inspection.
- 2.4 Our basal assessments of the London Plane tree were impeded and limited due to the presence of tarmacadam surfacing over the root area. Our assessment of the main trunk and crown were limited to walk-by assessments on the north-eastern side due to traffic flows along the Merrion Road. In such instances, the tree parts were limited to a Level 1 assessment.
- 2.5 Our tree risk assessments considers known targets and visible or detectable tree conditions. No invasive or destructive evaluation techniques were used and all findings are based on the knowledge and expertise of the undersigned – a qualified Arborist. Trees are living organisms that are subject to the stresses of climatic extremes and attack from decay fungi and injurious 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. By examining the trees, rating their likelihood of causing damage and injury and recommending action to abate the hazard, we act to reduce but not eliminate the risks associated with trees. We have been authorized to carry out this report with the full permission and consent of the Applicant.

3. Objectives:

- 3.1 This Arboricultural Tree Report was carried out in accordance with the recommended guidelines of *BS 5837:2012 Trees in relation to Design, Demolition and Construction – Recommendations* and seeks to quantify and assess all trees within the redline boundary area and as detailed on the accompanying Tree Survey drawing ref: TMS.LD.05.24.01A.

4. Methodology:

- 4.1 The survey was carried out on the 27th. May 2024 and is an updated and expanded Survey to our last Survey carried out on 31st. October 2018 The Survey was carried out to ISA's *Best Management Practices –Level 1 and Level 2 Assessment* and the *BS 5837:2012 Trees in relation to Design, Demolition and Construction – Recommendations*. Measurements relating to tree girth, height and crown spread have been taken and the condition of the trees have been assessed. Finally, management recommendations have been prescribed.
- 4.2 The trees have been identified and described in the Tree Survey Schedule outlined below. The reference numbers of the surveyed trees are shown in the Tree Survey Schedule below and on the attached Tree Survey drawing reference TMS.LD.05.24.01A accompanying this report.

5. Scope of Works:

- 5.1 For site location and scope of the works - Refer to the Tree Survey drawing Ref. *TMS.LD.05.24.01A*. The extent of the Tree Survey is outlined in red on the Aerial Location Map - Photo 1 below and a street tree growing on public lands immediately outside the redline boundary on Merrion Road.



Photo 1: Aerial Location Map. (photo. Courtesy of IFORIS MAPPING SYSTEM DAFM).

6. Summary of Survey:

- 6.1 The study area includes all trees growing within the site boundaries and one street tree growing on the public pavement immediately outside the main entrance to the site. See the attached Tree Survey drawing reference *TMS.LD.05.24.01A-A* accompanying this report. The trees have been identified and described in the Tree Survey Schedule outlined below. For selection of photo. images see Appendix 1.
- 6.2 There are no trees growing within the redline boundary of the site.
- 6.3 One tree street tree in close proximity to the site entrance along Merrion Road was surveyed and assessed. The tree species comprises of *Platanus acerifolia* (London plane).
- 6.3 The *P. acerifolia* (London Plane) tree is mature and is approximately between 75-100 years old. The tree is in fair condition and generally consistent with its age and past management history. The tree was planted as a streetscape scheme of London Plane and Lime along Merrion Road.
- 6.4 The tree has a paved over root flare with tarmacadam surfacing. The tree is growing in limited and restricted rooting conditions caused by poor planting pit design. There are signs of root plate lift to the tarmacadam surface around the base of the tree. There is cracking and upheaval of the tarmacadam surfacing and disruption and distortion of the road verge probably caused by tree roots. This could lead to impaired root function, good root development or affect tree stability. Good tree vitality could also be affected.
- 6.5 The tree has a stout bow-shaped main trunk that is generally clear to about eight metres. The tree is forked from about 5m resulting in about 8 no. co-dominant stems. The tree was pruned and crown-raised in the past resulting in clear stems to about eight metres. There are minor pocket cavities along the minor limbs on the southeastern side. There is possible water retention and/or ingress of water at the forking point. An aerial inspection is

recommended. The trunkwood appears sound following an on-site mallet test during out site inspection. There is a cable running through the forking point at about 5m. There are patches of orange-coloured fungal spores on the bark surface at about three meters on the western side.

- 6.6 The tree has a reasonably well-balanced crown with over-extended limbs to the northwest and southeast. Limbs extend over the Merrion Road where there are heavy traffic flows. There is a broken central stem and deadwood throughout the crown. There is minor deadwood throughout the crown. There are signs of some foliage wilt throughout the crown possibly Anthracnose leaf blight or other underlying disorder. The crown has about 70% leaf cover at the time of inspection.
- 6.7 There are no Category 'A' trees growing on the site, defined as *'Trees of high quality with an estimated remaining life expectancy of at least 40 years'*.
- 6.8 There is one Category 'B' trees growing on the site defined as *'Trees of moderate quality with an estimated remaining life expectancy of at least 20 years'*.
- 6.9 There are no Category 'C' trees growing on the site and defined as *'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'*.
- 6.10 There are no Category 'U' trees growing on the site and defined as *'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.'* These are trees in such poor condition that have no long-term potential or to be removed in the interests of health and safety and that pose a risk to site or road users.
- 6.11 In risk assessment, the risk posed by the *P. acerifolia* (London Plane) abutting the public road where occupancy rates are frequent to occasional is moderate to high. There is heavy vehicular and pedestrian traffic along Merrion Road and the adjoining footpath. In general the main threats or risk to persons, vehicles and/or property will be from fallen limbs, deadwood, hangars or other debris falling from the crown of the tree or in the event that the tree may uproot and suffer from mechanical failure due to restricted and limited rooting conditions. Tree limbs could also pose a risk to passing vehicles. The tree is growing close to target zones with mobile and static targets where occupancy rates are frequent to occasional. These target zones include the site, public road and footpath, parking areas and private property. Targets include, but not limited to, pedestrians, vehicles, neighbouring property and members of the public. Thus, in the event of limb or whole tree failure, the likelihood of impacting a target can range from high to low depending on location and occupancy rates and the consequences of failure can be classed as moderate to severe
- 6.12 Trees in target zones where occupancy rates are frequent or occasional shall always be prioritized for tree works and retained trees in these areas will require ongoing and regular inspections and attention in order to reduce risk.
- 7. Preliminary Tree Works:**
- 7.1 Preliminary remedial works include pruning and crown raising or reshaping and cleaning to remove all dead, storm damaged and weak limbs and general pruning and cleaning works to improve shape and form. An aerial inspection of the main forking point and crown is also recommended. A re-design of the planting pit and surrounding pavement is also to be considered.
- 7.2 The preliminary management recommendations as outlined in the Tree Survey Schedule are based on the current usage of the site. Any proposed tree work should be carried out to BS 3998:2010 Tree Work - Recommendations and to best safe working practices and standards. The works as detailed in the Tree Schedule below shall only be carried out by a fully insured, trained, certified and competent Tree Surgery firm. The preliminary management recommendations for retained trees will improve shape and form, prolong longevity, improve overall vitality and reduce risk. All retained trees shall be reassessed upon completion of any proposed development for the site.

- 7.3 Works to trees near powerlines shall only be carried out by suitably trained and certified personnel. The surveyed tree may have wire and metal objects attached or embedded in the bark and/or wood of the trees. Wire and other embedded materials can damage trees and can cause injury/death to persons engaged in the pruning, cutting, felling or related activities of affected trees. Damage to machinery can also occur.
- 7.4 The extent of tree remedial works as stated in the Schedule is determined by tree condition, current site usage and surrounding targets, at the time the survey was carried out. Tree remedial works should be based on what is required to establish acceptable levels of risk and management in the context of the proposed land use. The tree will need to be reassessed depending on any proposed development, or changes in site usage. Further remedial works may be necessary to reduce risk. The preliminary management recommendations will improve shape and form, prolong longevity, improve overall vitality and reduce risk.
- 7.5 The Forestry Act 2014 and accompanying Forestry Regulations 2017 sets out the legislation governing the felling of trees, the licenses required and offences and penalties for breaches of the legislation. Before undertaking any tree works, we recommend that the tree owner(s) checks whether any tree preservation or planning restrictions are in place. In order to fell any trees, a felling license or a consent of planning is usually required. There are also scenarios where a felling license is not required including: *'A tree outside a forest, the removal of which is specified in a grant of planning permission'*.

8. Timeframe for re-inspection:

- 8.1 Trees are not static objects, but growing, living organisms; and their condition, size, and relationship to buildings or other trees can change significantly and sometimes unpredictably within a relatively short period of time. The maximum interval of time for which this report and its findings remain valid shall be no more than twelve months from the date the Survey was carried out. Regular and ongoing assessments shall be carried out at least annually on retained trees, or after major storms or other exceptional events on the tree site. Re-assessments shall be at the request of the Tree Owner.

Larry Phelan M.S.I.F. Certified Arborist, Dip EIA Mgmt. Dip in Science (Forestry)

Tree Management Services

Credentials of Consulting Arborist

Larry Phelan is a Professional Forester and Certified Arborist. He has over 35 years' experience in a broad range of tree-related matters including Forestry, Arboriculture, Landscaping and related activities. He trained and worked for the semi-state Forestry Company – Coillte Teoranta for over 30 years in a number of forestry-disciplines including Tree Services, Private Afforestation and Private Timber procurement. He is a Professional Member and Certified Arborist with The International Society of Arboriculture (ISA), Technical Member of the Society of Irish Foresters (MSIF) and an Approved Forester including Native Woodlands with the Forest Service, Department of Agriculture Food and The Marine.

Explanation of terms – Tree Survey Schedule

Tree No.:	Reference Number affixed to individual trees to allow for identification.
Species:	Refers to the genus and species for each tree.
Ht.:	The approximate tree height to the nearest .5/m. is given.
DBH:	This is the trunk diameter measured at a height of 1.5 m above ground level.
Age:	The approximate age of the tree Y - < 15 years old M - 15-25 years old MA - Tree has reached full maturity OM - Tree is over mature and showing signs of decline.

Physiological Condition and Comments: Tree condition is based on a 3-tier rating system, and constitutes a general assessment of the physiological condition of the tree where a rating of:

Good = represents good health and vigour
Fair = Healthy and reasonable vigour
Poor = Showing signs of decline, disease or decay.

Estimated remaining contribution (in years): (<10, 10+, 20+, 40+)

Retention Category: BS 5837: 2012 determines four retention categories following assessment

- (1) Trees whose retention is most desirable: **Category A**
 Those of high quality and in such condition to make a substantial contribution with an estimated life expectancy of at least 40 years.
- (2) Trees whose retention is desirable: **Category B**
 Those of moderate quality and value so as to make a significant contribution with an estimated life expectancy of at least 20 years.
- (3) Trees which could be retained; **Category C**
 Those of low quality and value, but can make a contribution with an estimated life expectancy of at least 10 years or until new planting is established.
- (4) Trees for removal: **Category U**
 Trees that should be removed for reasons of sound arboricultural management or they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.

Sub Category: 1; Mainly Arboricultural qualities. 2: Mainly Landscape qualities. 3: Mainly cultural values, including conservation.

Preliminary Management Recommendations: Management Recommendations, comments or points to note.

NAR	No action required at this point in time.
E:	Denotes estimated reading.
Avg:	The average girth and height measurement where more than one stem or tree is represented by the same tree tag.

Glossary of Arboricultural Terms used:

Bow: Leans characterized by the top of the tree bending over more than the lower trunk, creating a curve.

Cavity: open or closed hollow within a tree stem, usually associated with decay.

Crown: upper part of a tree, measured from the lowest branch, including all the branches and foliage.

Crown cleaning: In pruning, the selective removal of dead, dying, diseased and broken branches from the tree crown.

Crown raising: In pruning, the selective removal of lower limbs from a tree crown to provide clearance.

Crown reduction: Method of reducing the height and/or spread of a tree crown by making appropriate pruning cuts.

Crown thinning: In pruning, the selective removal of live branches to reduce crown density.

Deadwooding: removing dead and dying branches from a tree.

Decay: an area of wood that is undergoing decomposition

Decline: gradually diminishing health or condition of a tree.

Dieback: condition in which the branches in the tree crown die from the tips towards the centre.

Failure: Breakage of stem, branch or roots, or loss of mechanical support in the root system.

Hangar: Broken branch hung up in the tree crown.

Included bark: bark that becomes embedded in a crotch (union) between branch and trunk or between codominant stems. Causes a weak structure.

Lean: Angle of the trunk

Level 1 Assessment consists of a visual limited assessment of an individual tree or parts of a tree or a population of trees near specified targets, conducted from a specified perspective in order to identify certain obvious defects or specified conditions. A limited visual assessment typically focuses on identifying trees with *imminent* and/or *probable* likelihood of failure.

Level 2 Assessment consists of a detailed visual examination of the tree and its surrounding site and a synthesis of the information collected. It requires walking around each tree looking at the site, buttress roots, trunk, crown and branches and noting any defects, outward signs of possible internal defects and response growth. Data is then analysed and mitigation measures (tree works) are derived.

NAR: No action required at this point in time.

Pruning: Removing branches from a tree using approved practises, to achieve a desired objective.

Root rot: Decay located in the tree roots. Root decay is usually developed from the bottom up, and crown symptoms may or may not be visible.

Scope of work: The defined project objectives and requirements

Sucker growth: Shoots arising from the roots close to base of tree.

Stem: woody structure bearing foliage and buds.

Target: Person, object, or structure that could be harmed (damaged or injured) by a tree or tree part in the event of failure.

Tree Survey Schedule

Tree No.	Species	Ht. m.	DBH (cms.)	Dripline	Age	Physiological Condition and comments <ul style="list-style-type: none"> • Good • Fair • Poor • Dead 	Estimated remaining contribution (in years). <10 10+ 20+ 40+	Retention Category	Preliminary Management Recommendations
1552 Other 5995	<i>Platanus acerifolia</i> London plane	19.0	74	8N 7S 5E 7W	MA	<p>Fair.</p> <p><u>Root:</u> Limited assessment due to paved over root surface and traffic flow on east side. Paved over with tarmacadam root area to within about 400mm of trunk. Flowering plants and young cordyline growing around base. Upheaval and cracking to pavement. Disruption and distortion of kerb on road side. Signs of pavement lift from raised buttress roots. Manholes on southern and northern sides.</p> <p><u>Stem:</u> Limited assessment on east side due to traffic flow. Stout bow-shaped and self-corrected stem. Main forking point at about 5m. At least 8 no. stems from forking point. Possible ingress/retention of water at forking point - requires further investigation. Lesions along main trunk. Signs of fungal discoloration on west side at about 3m. Generally clear stem to about 7m. Crown-raised in past.</p> <p><u>Crown:</u> Limited assessment on east side due to traffic flow. Well-balanced and open crown. Slightly more crown weight to north and west. Limbs overhang Merrion Road. Cable through centre of crown at about 5m. Pruned and crown lifted in past. Deadwood in crown of tree and accumulated debris in stem union. Storm-damaged and broken stem in centre of crown at about 14m. Minor decline and foliage wilt in crown possibly Anthracnose leaf blight or other underlying disorder. Street light on northwest side at about 10m.</p>	40+	B2	<p>1. Consider re-design of planting pit to improve filtration/aeration of roots and improve root function and development.</p> <p>2. Carry out aerial investigation of crown and all forking points.</p> <p>3. Prune to remove/repair storm-damaged stem in central crown. Clean the crown removing all deadwood. Light tip prune back limbs away from streetlight and over Merrion Road.</p> <p>4. Inspect regularly at least annually or after major storm events.</p>

Appendix 1



Photo 2: London Plane Street tree no. 1552 seen from road.



Photo 3: Views of tree from north-western side with bow-shaped stem.



Photo 4: Views of pavement lift on footpath.



Photo 5: Paved over root flare to within about 400mm of main trunk.



Photo 6: Views of tree from south-eastern side.



Photo 7: Views of main forking point - main trunk.



Photo 8: Views of distortion to kerb adjacent to road.



Photo 9: Limbs overhang site hoarding to west.

Applicant(s): 1 Merrion Compound Land Limited
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Page:14
Doc No.02
Issue: 1
Date: 27-08-2024

Appendix 2: *As attachment - Tree Survey Drawing Ref: TMS.LD.05.24.01A*