

Proposed Housing Development,
Churchfields 2B, Mulhuddart, Dublin 15
Tree Survey & Planning Report

Environmental
Assessment
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1 Introduction

There are plans to develop land west of the Avondale Park estate in Mulhuddart, Co. Dublin. There are a number of hedges and trees around the site and this report has been commissioned to provide an Arboricultural assessment of these trees to assist with the plans for the development of the site and for inclusion in the planning application. The survey data was collected and collated in accordance with BS5837: (2012) *Trees in relation to design, demolition and construction – Recommendations*.

The accompanying drawing 6469-300 (Tree Survey) shows the locations of the individual trees and tree groups identified on the site during the survey.

2 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 such as Ivy can obscure structural defects and some symptoms of disease, where such plants prevent a thorough examination it is recommended that the climber be cut at ground level and the tree re-inspected when it has died back.

3 Methodology

The trees were accessed on foot and assessed using Visual Tree Assessment (VTA) techniques only. Hedges and groups of trees were assessed collectively in accordance with BS5837: (2012) *Trees in relation to design, demolition and construction – Recommendations*. Tree outside the site or those inaccessible were assessed on the basis of what parts of the trees were visible to the surveyor.

4 Survey Key

4.1 Tree, tree group and hedge number

Individual trees (prefix T), tree groups (prefix G) and hedges (prefix H) were allotted reference numbers to allow for identification and cross reference with the survey schedule and site drawings. Individual trees were not tagged on site.

4.2 Species

Refers to the specific tree species with both common and botanical names for individual trees and those present within each hedgerow or tree group.

4.3 Age Class

- Y: Young tree – yet to reach biological maturity;
- SM: Semi-mature - tree now well established and developing;

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- EM: Early-Mature - tree not yet fully grown;
- M: Mature – Tree fully grown and in full maturity;
- LM: Late Mature – in the later stages of maturity;
- OM: Over mature - tree now declining from natural causes;
- Vet: Veteran - tree of value due to old age and ecological/cultural significance.

4.4 Stem diameter, Tree Height and Crown Size Measurements

- Ht: Total Tree Height in metres;
- Dbh: Diameter (in mm) at breast height measured at 1.5m from ground level;
- NSEW: Crown spread (in metres) for all 4 cardinal points.

4.5 Condition

Condition refers to both physiological condition (good, fair, poor, dead.) and structural condition.

- 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;
- Dead: Tree now completely dead.

4.6 Comments

Additional description/commentary on individual trees where appropriate.

4.7 Recommendations

Preliminary management recommendations are noted, these pertain to current site conditions unless otherwise stated.

4.8 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 young trees with a stem diameter of below 150mm;
- 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.

4.8.1 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.

4.9 Root Protection Area

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 (rad) in metres measured from the tree stem and is shown on tree survey drawings 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.

- a) For trees with two to five stems, the combined stem diameter should be calculated as follows:
$$\sqrt{(\text{stem diameter 1})^2 + (\text{stem diameter 2})^2 \dots + (\text{stem diameter 5})^2};$$
- b) For trees with more than five stems, the combined stem diameter should be calculated as follows:
$$\sqrt{(\text{mean stem diameter})^2 \times \text{number of stems}}.$$

5 Findings

The trees and tree groups were assessed during a site visit on the 12th October 2019. The field survey findings are recorded in the survey schedule appended to the report and include the data for four tree groups and one hedgerow. All of the groups and the one hedge included in the survey were graded category C (low value).

The site covers an area currently used as a playing field adjacent to the Avondale Park estate and disused land beyond the fence-line to the west. The area inside the perimeter fence does not contain any tree cover, with all trees and hedges included in the survey being located outside the perimeter fence, with most being located outside the actual site boundary line, but included in the schedule for reference and clarity.

The land slopes away to the west and south-west beyond the fence, down to a small watercourse that runs along a roughly north-west to south-east route. This watercourse has mixed tree cover along its length, with Hawthorn, Willow and Elder being the dominant species numerically. The larger trees present are mostly Ash, Poplar and Alder. The trees were recorded collectively as group G1 along the southern half of the stream and group G2 to the north.

Tree group G3 is an area of dense Hawthorn and Blackthorn bushes just south of the sports pitch. This area has been left to spread by natural regeneration and has become heavily overgrown and impenetrable.

Tree group G4 is located to the north of the site and is the southern part of a larger wooded area. This group includes a section of remnant hedgerow and some Spruce trees in poor condition.

Hedge H1 is a section of old farm hedgerow established along the ditch that runs from the north western corner of the sports pitch towards the watercourse to the west. The hedge is mostly Hawthorn with several emergent Ash stems along the western half.

None of the tree groups or hedges included in the survey appear to have been subject to any regular management for many years and have become heavily overgrown in places. The trees and hedges do however provide some landscape and conservation value.

6 Preliminary Recommendations

Preliminary management recommendations for the trees, hedges and tree groups under present site conditions are listed in the survey schedule.

7 Arboricultural Impact of New Development

The impact of the new layout on the existing trees and hedges is shown on drawing 6469-301 (Tree Protection Plan).

The land proposed for development does not contain any significant tree cover and so the development will have no direct impact on the trees and hedges in the locality.

The plans for the development include the creation of an embankment around the northern, western and southern edge of the site boundary. The groundworks required to construct this embankment has the potential to impact on the adjacent trees and bushes making up group G3 and hedge H1 unless well managed and controlled.

8 Arboricultural Method Statement

8.1 Tree Surgery Works

No specialist tree work will be needed to facilitate the development; however, some scrub clearance (brambles, bushes etc.) may be required along the northern edge of group G3.

8.2 Tree Protection Measures

Sturdy tree protection fencing or site hoarding will be erected along the lines shown on the drawing 6469-301 (Tree Protection Plan) to prevent construction machinery encroaching into the root protection areas (RPAs) of the trees to be retained within group G3 and hedge H1.

Where machinery 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; there is ample space on the site to accommodate these facilities outside the RPAs of the retained trees and hedges.

Any new underground services such as electricity cables, water pipes etc. will be routed away from the root protection areas of the trees to be retained; where this is not possible for reasons unforeseen, the services will be installed using specialist methodology (such as Airspade excavation or Mole drilling) that ensures minimal impact on any tree roots.

The tree protection measures and specialist work methods will be overseen by a qualified arborist; the arborist should also make regular visits to the site during the construction process to ensure compliance and be available to provide advice and guidance where necessary.

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

9 Site Photographs



Photo 1. Riparian tree group G1, viewed from the east



Photo 2. Dense thicket of Hawthorn and Blackthorn making up group G3

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Photo 3. Tree group G2 on low lying ground outside the western edge of the site



4. Hedge H1 extending westwards along ditch, viewed from the east.

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5. Truncated tree group G4 to the north of the site; note recent earthworks close to trees

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10 Schedule of Trees Included in the Survey

No.	Species	Age	Ht m	Dbh mm	St	Cr	N	S	E	W	ERC	Phys Cond	Structural Condition/Comments	Preliminary Recommendations	RPA m	Area m2	Cat
G1	Crataegus monogyna (Hawthorn) Fraxinus excelsior (Ash) Populus spp. (Poplar) Prunus spinosa (Blackthorn) Salix caprea (Goat Willow) Sambucus nigra (Elder)	EM M	5 to 16	100 to 450	1	0	4	4	4	4	10+	Fair	Fair. Riparian tree group running along the banks of the adjacent watercourse. Mostly a mixture of Hawthorn, Willow and Elder bushes, with smaller number of larger Ash and Poplar trees in southern part of group. Poor access limited visual assessment and direct measurements of group.	No urgent works needed.	5.4	91.6	C2
G2	Crataegus monogyna (Hawthorn) Fraxinus excelsior (Ash) Prunus spinosa (Blackthorn) Salix caprea (Goat Willow) Sambucus nigra (Elder) Alnus glutinosa (Alder)	SM EM M	5 to 12	100 to 300	1	0	4	4	4	4	10+	Fair	Fair. Area of mostly Willow scrub woodland on lower lying ground to the west of the site. Some taller Ash and Alder stems in western part of group. Poor access limited visual assessment and direct measurements of group.	No urgent works needed.	3.6	40.7	C2
G3	Crataegus monogyna (Hawthorn) Prunus spinosa (Blackthorn) Sambucus nigra (Elder)	SM EM M	3 to 6	250	1	0	3	3	3	3	10+	Fair	Fair. Dense thicket of Hawthorn, Blackthorn and Elder bushes. Some older, mature Hawthorn bushes amongst dense younger undergrowth. Area of thick Blackthorn suckering to south and east of group. Poor access limited visual assessment and direct measurements of group.	No urgent works needed.	3	28.3	C2

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G4	Crataegus monogyna (Hawthorn) Prunus spinosa (Blackthorn) Sambucus nigra (Elder) Fraxinus excelsior (Ash) Picea abies (Norway Spruce)	SMEMM	12	300	1	0	3	3	3	3	10+	Fair/Poor	Fair. Mixed species tree group truncated by development earthworks in past and more recently. Includes remnant elements of an old hedgerow made up of Ash, Hawthorn and Elder, with some of the trees and bushes closest to the earthworks likely to have been impacted by the works. Group also includes several Spruce trees that appear to be in poor physiological condition.	No urgent works needed.	3.6	40.7	C2
H1	Crataegus monogyna (Hawthorn) Fraxinus excelsior (Ash) Prunus spinosa (Blackthorn) Salix caprea (Goat Willow) Sambucus nigra (Elder)	EM	6	300	1	0	3	3	3	3	10+	Fair	Fair. Old hedgerow following ditch running east to west between the existing boundary fence and area covered by tree group G2 to the west. Almost entirely made up of Hawthorn and Elder bushes, with occasional Ash coppice stools spread along the western half of the hedge. No recent management.	No urgent works needed.	3.6	40.7	C2

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