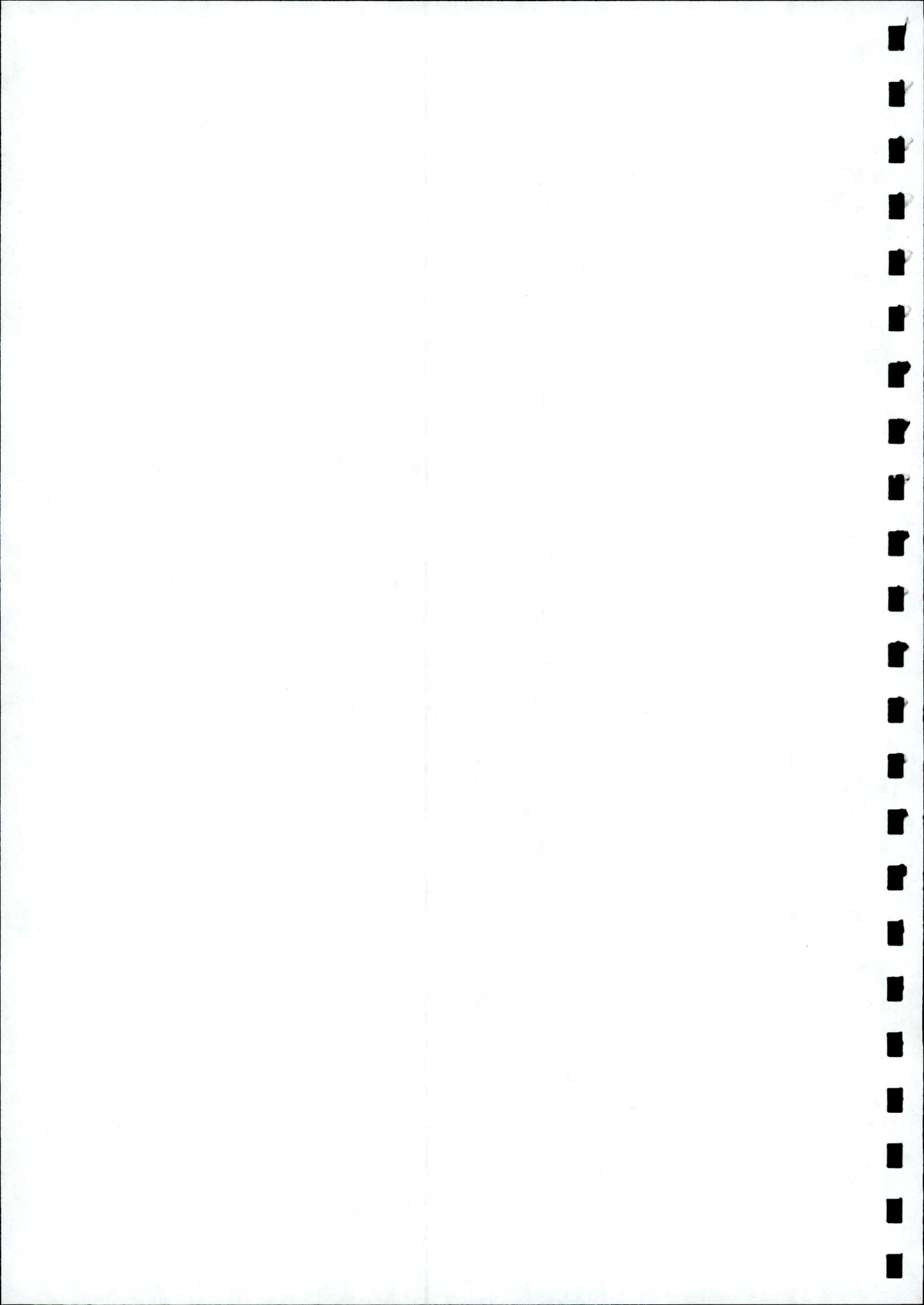


**CUNNANE STRATTON REYNOLDS**

## **TREE SURVEY**

**Dunnes Stores,  
Kilnamanagh Shopping Centre,  
Mayberry Road,  
Dublin 24.**

**July 2022**



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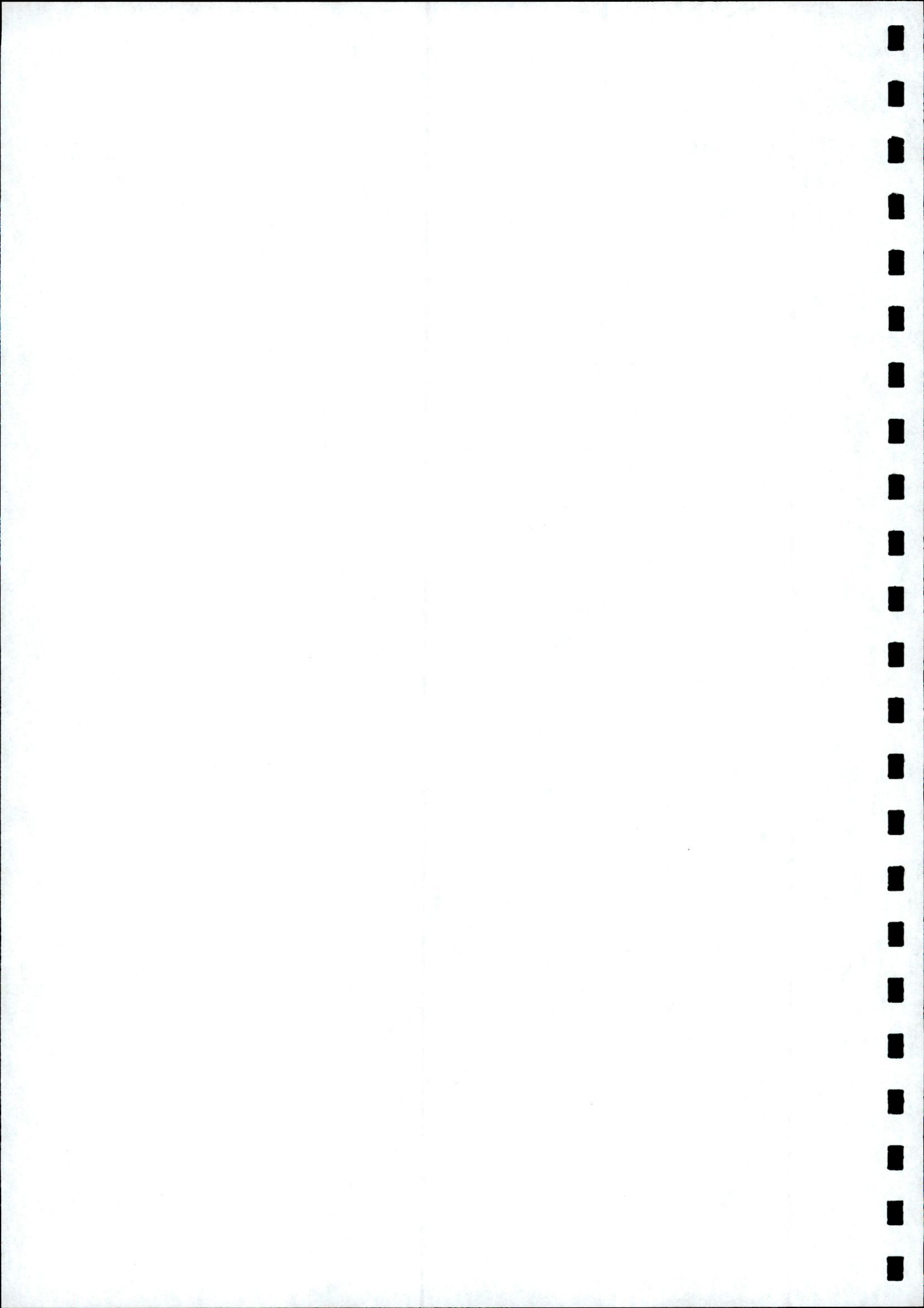
2. Description of Existing Trees

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## SUMMARY

This report presents a record of those trees existing within or adjacent to an existing shopping center site, for which an extension is proposed. The report considers those trees that may potentially be impacted by the development proposal. Trees have been surveyed as individuals or tree groups in accordance with BS 5837 (2012). The site tree survey was undertaken on 16<sup>th</sup> March 2022 by Cunnane Stratton Reynolds arborist;

Keith Mitchell    Diploma Arboriculture (Level 4)  
                          Technician Member Arboricultural Association (UK)  
                          Tree Risk Assessment Qualification (International Society of Arboriculture)  
                          MA(Hons) Landscape Architecture  
                          Member of the Irish Landscape Institute  
                          Chartered Member of the Landscape Institute (UK)  
                          Diploma EIA Management

This survey and report are based on the topographic site survey information supplied in the following drawing;

- 2D Topographic Survey Dwg No MSL16166

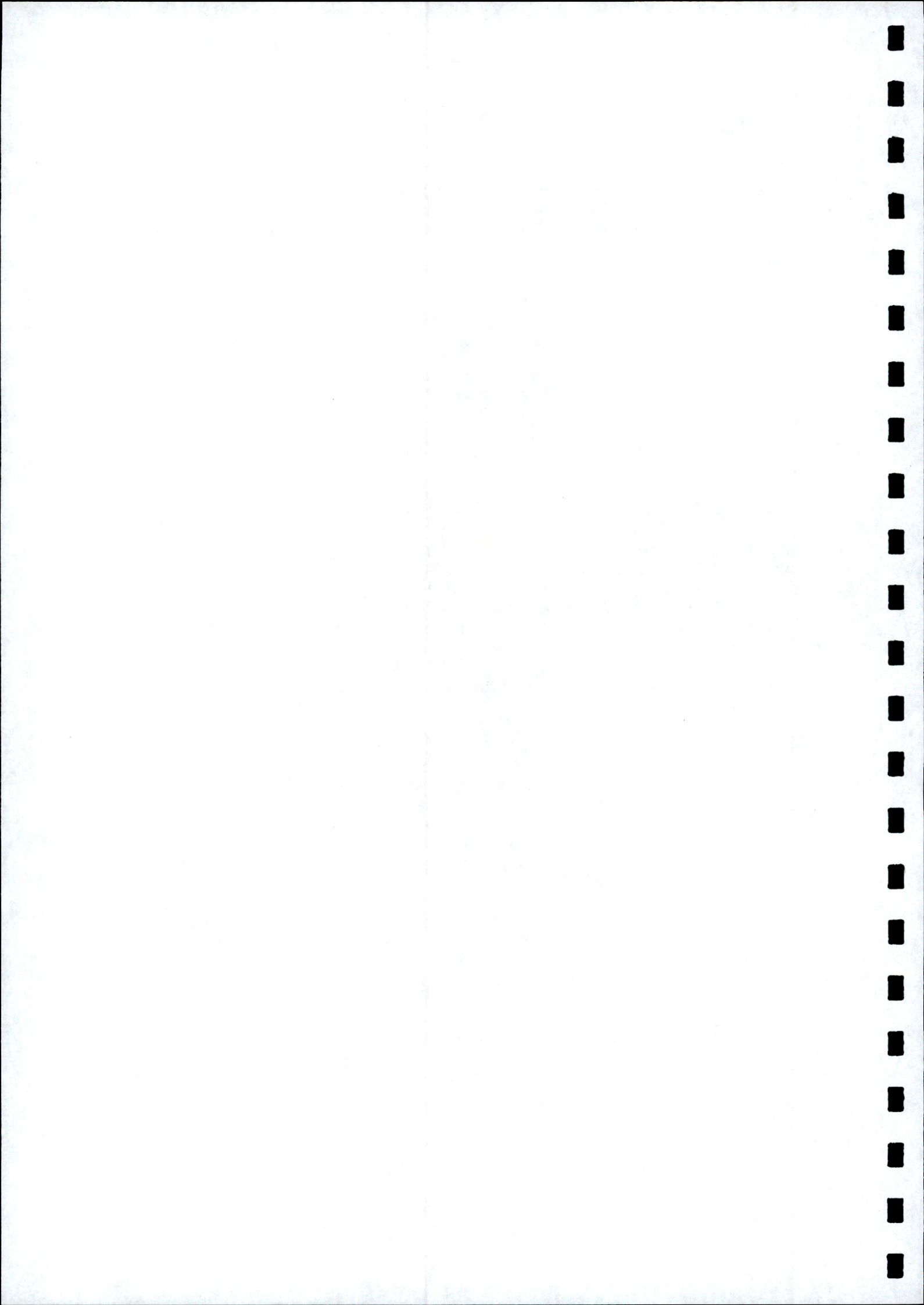
A full survey record is presented in Appendix 1, together with accompanying drawings Tree Constraints Dwg No 22146A\_T\_101, Arboricultural Impact Assessment Dwg No 22146A\_T\_102 and Tree Protection Plan Dwg No 22146A\_T\_103. After introducing the terms of reference and the methodology of the survey, the report summarises the survey findings in an overview of the existing tree cover within the site.

A total of thirty-three individual trees within the site and one tree group external to the site were recorded as part of the survey.

For reasons of practicality large groups of similar trees may be assessed as tree groups. Where assessment takes the form of a tree group – any trees of particular arboricultural significance or relevance to proposed scheme within these groups may also be identified and assessed as an individual within the group. Every effort has been made to access all trees for inspection, however where site conditions prevent full physical access, some measurements may be visually estimated. Where trees are heavily obscured by existing ivy growth a best assessment is made however this must be considered preliminary until full visual access is available.

The site contains a number of trees of varying maturity and quality. The proposed layout will necessitate the removal of a small number of trees low value trees. It is recommended that suitable replacement tree planting, (favouring native tree species), be implemented as part of the scheme to help mitigate against proposed tree removals.

The report concludes with recommendations for protection measures to ensure the conservation of retention trees during the proposed development.



# 1. INTRODUCTION

## Terms of Reference

Cunnane Stratton Reynolds (CSR) were instructed to undertake a tree survey, to inform the proposed extension of an existing shopping center.

Following a site survey, CSR considered those tree and tree groups that might potentially be impacted by the proposed scheme and produced a subsequent tree survey report presenting our findings, (in accordance with BS 5837:2012), together with recommendations for their best practice management in relation to the proposed development.

This involved a survey of the principal trees / tree groups concerned in accordance with BS 5837 (2012).

Documents supplied to CSR for purposes of conducting a tree survey include:

- 2D Topographic Survey Dwg No MSL16166
- Architects Layout PDA\_DS-69-PL-SITE 220706

## Site Inspection & Methodology

The site was surveyed on 16<sup>th</sup> March 2022 by a qualified Arborist. A visual inspection from the ground was performed on all relevant existing trees / tree groups on site. Where access allowed, principal individual trees were examined before critical measurements were taken and observations made.

A description was recorded of each tree / group of trees, their species, age class, all relevant measured dimensions (height, stem diameter, crown spread radii and crown clearance height) and an assessment of the tree health / vitality, structural form, life expectancy and quality categorisation. Any recommended remedial works required were outlined. Hedgerows and significant tree groups within/bounding the site are subject to group description and assessment, in accordance with BS 5837 (2012).

The findings of the survey are recorded and presented in this Tree Survey Report and Tree Schedule (Appendix 1). A Tree Classification and Constraints drawing was produced to inform the design process. An Arboricultural Impact Assessment and Tree Protection Proposals were considered in relation to the proposed scheme.

This report is subject to the scope and limitations as given at the end of the report.

## Accompanying Drawings

The tree survey report should be read in conjunction with;

- Tree Classification & Constraints (Dwg No 22146A/T/101).
- Arboricultural Impact Assessment (Dwg No 22146A/T/102).
- Tree Protection (Dwg No 22146A/T/103).

A1 size colour coded drawings accompany this report, (monochrome drawings should not be relied upon). These drawings are based upon the topographical drawings supplied to CSR.

## Site Location

The site is that of the existing Kilnamanagh Shopping Centre and associated car park, located on the Mayberry Road, Dublin 24.



## 2. DESCRIPTION OF EXISTING TREES

2.1 The area of trees surveyed, (approximate survey area highlighted red – Fig 1), is currently a shopping center and associated car park.



Figure 1: Low resolution satellite image of approximate tree survey area in red (courtesy of Google Earth).

A total of thirty-three individual trees within the site and one tree group external to the site were recorded as part of the survey.

Their location, size and quality category may be reviewed with reference to the accompanying Tree Survey Dwg No 22146A/T/101 and the tree survey (Appendix 1).

2.2 Photographic Summary of Trees Surveyed



T508 & T509 (foreground) T510-T513 (rear)



T514



T515



T516



T517



T518



T519



T520



T521



T522



T523-T525



T526



T527



T528



T529



T530



T531



T532



T533 & T534



T535-T537 (left to right)



T538



T539



T540



Tree Group 1 (Treepark Road)



Tree Group 2 (Mayberry Road)

2.3 The site has the Kilnamanagh shopping center centrally located and surrounded by car parking on all sides. The existing trees are primarily located along the sites northern boundary. Outside the site boundary there are continuous lines of mature street trees planted in grass verges running parallel to the public road.

The trees within the site are a mix of primarily non-native ornamental species, whilst those street trees external to the site are almost exclusively Norway Maple. The trees are not individually of exceptionally high value however they cumulatively make a significant visual contribution to the surrounding environment – particularly those external to the site.

(Trees can sometimes become more valuable as collective groups, than they might be when considered solely as individuals in isolation - a grouping or woodland being generally of significant visual and ecological value. As such it should be noted that the cumulative value of evaluated Tree Groups often reflects an increased categorised value than might be awarded to the constituent trees if they were assessed in isolation as individuals).

### 3. ARBORICULTURAL IMPACT ASSESSMENT

3.1 This section discusses the potential impact of the proposed development on the existing tree cover on site and considers the need for mitigation measures, in accordance with BS 5837 (2012), for sustainable development.

3.2 Category 'U' trees are recommended for immediate removal, (fell or monolith to safe height), on general management grounds, irrespective of site development – none were identified as such during this survey.

#### Direct Loss of Trees

3.3 The proposed scheme is in direct conflict with a small number of trees, which will require their removal to facilitate the proposed development.

Tag No	Tree Species	Tree Class	Number of trees
T522	Sorbus aucuparia	C1	1
T523	Cordyline australis	C1	1
T524	Crataegus monogyna	C1	1
T525	Crataegus monogyna	C1	1
T526	Cordyline australis	C1	1
T527	Prunus avium	C1	1
T534	Prunus avium	B1	1

#### Indirect Impacts

3.4 Cognisance must also be given to indirect impacts - in particular care must be taken to ensure the proposed development and ancillary works do not represent an unacceptable conflict with the calculated 'Root Protection Area' of the existing trees proposed for retention.

Disturbance of 'Root Protection Area' may just as readily kill or destabilise a tree over time, by means of root damage/severance and or earth compaction/covering preventing essential transfer of water, air and nutrients to roots.

Good planning and site management will be required during construction works to ensure these areas are not adversely impacted by construction activities. The use of tree protection fencing as set out in tree protection drawing Dwg 22146A\_T\_103 to exclude access to root protection areas will be critical to avoiding detrimental impacts and their successful retention.

It is advised that the site manager must carefully review the tree protection drawing Dwg 22146A T 103, prior to commencement of works on site. The proposed tree protection measures should be in place from the outset prior to the commencement of works. Any queries should be raised with the project Arborist prior to commencement of works on site.

A proposed new path close to T535 shows very minor level of potential conflict with the periphery of the trees calculated RPA. It is considered that the impact will be small enough so as to be negligible however care must be taken not to encroach unnecessarily any further in the RPA. A protective fence line as illustrated on DWG 22146A\_T\_103 will be required to ensure this does not occur.



Provided proper tree protection measures are adhered to it is not anticipated that any further trees will require removal due to indirect impacts.

### **Additional Considerations**

3.5 Scrub and tree removal should ideally take place outside the bird nesting season (March – August).

The proposed development offers an opportunity for new tree planting which will assist in mitigating against proposed losses. It is suggested that a mix of species be planted using native and high ecological value non-native trees to mitigate against loss of existing trees and their associated ecological value.

### **Summary**

3.6 Table 1 illustrates trees to be removed and their classification.

Table 1.

<b>Tree Class</b>	<b>Trees proposed for removal</b>
A Class Trees	0
B Class Trees	1
C Class Trees	6
U Class Trees	0
<b>TOTAL</b>	<b>7</b>

### **Tree Protection**

3.7 Adequate protection and so successful retention of those trees to be retained within the land take area, will be achieved by rigidly excluding all construction activities from tree root protection areas by fit for purpose barriers/fencing and/or additional ground protection.

3.8 Tree Protection Areas (TPAs) are proposed, as indicated on accompanying Tree Protection Plan (Dwg No 21739A\_T\_103). Protective fence line locations and details for these fences are also illustrated on the plan.

### **Services**

3.9 Any services that are planned as part of this project must also avoid designated 'Root Protection Area' of tree / tree groups for retention.

#### 4. RECOMMENDATIONS – Arboricultural Method Statement

Recommendations for the specific measures advised regarding management of the trees in relation to this development are detailed within Appendix 1. These recommendations should inform, and be referred to in, the method statements submitted for approval prior to commencement by the responsible building/engineering and landscape contractors whose works (subject to grant of permission) will affect retained trees and the Tree Protection Areas.

##### 1. *Tree Works.*

Subject to the required permissions removal / felling works as specified on Dwg No 22146A\_T\_102, should be performed prior to project commencement, by reputable contractors in accordance with BS 3998:2010 and current best practice. (Removal of scrub vegetation and ivy clearance should preferably be performed outside of the bird nesting season (1<sup>st</sup> March – 31<sup>st</sup> Aug). Tree felling should be preceded by a competent assessment as to the presence of any protected wildlife species, where required specialist advice should be sought if necessary).

##### 2. *Protective Fencing.*

Protective fencing (barriers) should be erected in the positions and alignments as indicated on the Tree Protection Plan (Dwg No 22146A\_T\_103).

Fencing should be in accordance with BS 5837:2012 unless otherwise agreed with the planning authority. Commencement of development should not be permitted without adequate protective fencing being in place. This fencing, enclosing the minimum tree protection areas indicated, must be installed prior to any plant, vehicle or machinery access on site. Fencing should be signed 'Tree Protection Area – No Construction Access'. Fencing is not to be taken down or re-positioned without written approval of the project Arborist. No excavation, plant or vehicle movement, materials handling or soil storage is to be permitted within the fenced tree protection areas indicated on plan.

##### 3. *Monitoring & Compliance*

A professionally qualified Arborist is recommended to be consulted as required by the principal contractor or developer. It is advised that tree protection fencing, any required special engineering and supervision works etc must be included / itemised in the main contractor tender document, including responsibility for the installation, costs and maintenance of tree protection measures throughout all construction phases.

Copies of the Tree Survey and all accompanying drawings, a copy of BS 5837:2012 and NJUG 4 (2007) '*Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees*' should all be kept available on site by the contractor during development. All works are to be in accordance with these documents.

## **Limitations and Scope of this Survey Report**

This report covers only those trees individually inspected, (shown on the 'Tree Survey Drawings' and described in the 'Schedule'), reflecting the condition of those trees at the time of inspection. Inspection is limited to visual examination of the subject trees from the ground without; test boring, use of tomographic equipment, dissection, probing, coring, ivy removal or excavation to establish structural integrity. The trees were not climbed and dimensions are approximate, but considered a reasonable reflection of the trees measurements. This survey can only therefore be regarded as a preliminary assessment.

There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the subject trees may not arise in the future. The currency of this survey report and its recommendations is one year.

The accompanying drawings are illustrative and based on the land (topographical) survey information supplied; CSR Ltd accept no legal liability or responsibility for any errors in the information contained in the supplied drawings.

CSR Ltd accept no responsibility for the performance of trees subject to pruning or other site works (including construction activities) not performed in strict accordance with recommendations as specified in this report and/or in accordance with BS 3998:2010 and BS 5837:2012

All retained trees mentioned in this report should be subject to expert re-inspection within 12 months and prior to completion of development works and public occupancy of the site.

This report was produced as a part of a planning application for the scheme; the author accepts no responsibility or liability for actions taken by reason of this report by the client or their agents unless subsequent contractual arrangements are agreed. Public disclosure or submission of any part of this report without title, or permission from the author, renders this report invalid and legally inadmissible.

## **References/Bibliography**

BS 5837 (2012). *Trees in Relation to Design, Demolition and Construction - Recommendations*. British Standards Institution. TSO, London.

BS 3998 (2010) *Tree Work - Recommendations*. British Standards Institution. TSO, London.

NJUG 4 (2007) *Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (Issue 2)*. National Joint Utilities Group.

## TREE SURVEY KEY

Information in the attached schedule is given under the following headings:

### Tree No.

Individual trees have been numbered and tagged on site with corresponding survey tag or treated as a group where appropriate (e.g. Woodlands/hedgerows) and illustrated on accompanying tree survey drawing.

### Species

Latin botanical names of species are provided

### Height

Overall estimated height given in meters (measured using Truplus 200 Laser Rangefinder).

### Stem Diameter

The diameter of the main trunk taken at a height of 1.5m on a single stem tree, or, on each branch of multi-stemmed (MS) trees.

### Crown Spread

The largest radius of branch spread is provided in meters for North / East / South and West directions.

### Height of lowest branch

The distance between ground level and first significant branch or canopy (and direction of growth) given in meters (m).

Any measurement or dimension that has been estimated (for offsite or otherwise inaccessible trees where accurate data cannot be recovered) is identified by the suffix #.

### Life stage

The tree's age is defined as:

Y = Young, in first third of life (tree which has been planted in the last 10 years or is less than 1/3 the expected height of the species in question).

MA = Middle Age, in second third of life (tree, which is between a 1/3 and 2/3's the expected height of the species in question).

M = Mature, in final third of life (tree that has reached the expected height of the species in question, but still increasing in size).

OM = Over mature (tree at the end of its life cycle and the crown is starting to break up and decrease in size).

V = Veteran Tree (exceptionally old tree).

### Physiological Condition

The tree's physiological condition is defined as:

**Good** - Good vitality: normal bud growth, leaf size, crown density and wound closure

**Fair** - Average to below average vitality: reduced bud growth, smaller leaf size, lower crown density and reduced wound closure

**Poor** - Low vitality: limited bud growth, small chlorotic leaves, sparse crown, poor wound closure

**Dead** - No longer living.

### Structural Condition

The trees structural condition is defined as:

**Good** - No major structural defects observed (possibly some minor defects)

**Fair** - Minor defects present, (such as bark wounds, isolated decay pockets or structure affected due to overcrowding), that could be alleviated by tree surgery/management

**Poor** - Major structural defects present such as extensive deadwood, decay or defective to the point of being dangerous. (Significant defects are noted e.g. decay, collapsing etc).

### Preliminary Management Recommendations & Timescale

Recommendations actions based on limitations of survey – (may include further investigation and or assessment of suspected defects by means and or methods not undertaken / within the remit of this survey).

### Estimated Remaining contribution (Years)

Life of the tree is given as;

- 10 < less than 10 years remaining
- 10 + in excess of 10 years remaining
- 20 + in excess of 20 years remaining
- 40 + in excess of 40 years remaining

### Tree Quality Assessment 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).

### **A High quality**

*Trees of high quality with an estimated remaining life expectancy of at least 40 years*

A1 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)

A2 Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features

A3 Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)

### **B Moderate quality**

*Those trees of moderate quality with an estimated remaining life expectancy of at least 20 years.*

B1 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.

B2 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.

B3 Trees with material conservation or other cultural value

### **C Low quality**

*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.*

C1 Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.

C2 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 benefits.

C3 Trees with no material conservation or other cultural value.

APPENDIX 1

Tag	Species	Height (m)	Crown Spread (m) N/S/E/W	Girth (mm)@ 1.5m	RPA circle radius (m)	Ht of lowest branch (m) & direction of growth	Life Stage	Estimated remaining contribution (years)	Physiological Condition	Structural Condition	Preliminary management recommendations	Category of retention + sub-category	Notes
508	Pinus nigra	10	4/2/2/2	480	5.76	1m all	MA	40+	Good	Fair		B1	
509	Tilia cordata	9	4/4/4/4	400	4.80	2m all	MA	40+	Good	Fair		B1	
510	Sorbus aucuparia	5	1/2/1/1	140	1.68	2m all	Y	20+	Fair	Fair		C1	
511	Prunus avium	8	4/4/4/4	210	2.52	3m all	MA	40+	Good	Fair		B1	
512	Prunus avium	8	3/4/4/4	240	2.88	2m all	MA	40+	Good	Fair		B1	
513	Pyrus calleryana	6	0/2/2/0	130	1.56	2m all	Y	20+	Fair	Fair		C1	
514	Prunus avium	4	2/1/3/3	140	1.68	2m all	Y	20+	Good	Good		C1	large pruning wound
515	Fraxinus excelsior	4	2/2/2/2	100	1.20	1m n/s	Y	10<	Fair	Good		C1	
516	Pyrus calleryana	6	2/1/2/2	190	2.28	2m all	MA	40+	Good	Good		B1	
517	Acer platanoides	8	1/1/1/1	130	1.56	2m all	Y	40+	Good	Good		C1	
518	Acer platanoides	7	1/1/1/1	90	1.08	1m n/s	Y	20+	Fair	Fair		C1	prune compression fork
519	Sorbus aucuparia	4	1/1/1/1	50*3	1.04	0m all	Y	40+	Fair	Good		C1	remove damaged bole
520	Fraxinus excelsior	8	3/1/2/2	190	2.28	2m e/w	Y	10<	Fair	Fair		C1	prune compression fork
521	Sorbus aucuparia	6	2/2/2/1	130	1.56	2m all	MA	20+	Good	Fair		B1	
522	Sorbus aucuparia	4	1/0/1/1	80	0.96	1m all	Y	10+	Poor	Fair		C1	consider replacement
523	Cordylone australis	5	1/1/1/1	140	1.68	2m all	MA	20+	Good	Good		C1	
524	Crataegus monogyna	5	2/2/1/1	200	2.40	1m all	MA	40+	Good	Fair		C1	
525	Crataegus monogyna	5	2/1/2/2	70*3	1.45	0m all	MA	40+	Good	Fair		C1	
526	Cordylone australis	6	1/1/1/1	140	1.68	1m all	MA	20+	Good	Fair		C1	
527	Prunus avium	3	1/1/1/1	180	2.16	1m all	MA	20+	Good	Fair		C1	
528	Acer pseudoplatanus	6	3/3/3/3	180	2.16	2m all	MA	40+	Good	Fair		B1	
529	Acer pseudoplatanus	10	5/5/5/5	360	4.32	2m all	MA	40+	Good	Fair		B1	
530	Acer platanoides	5	2/2/2/2	130	1.56	2m all	Y	40+	Good	Fair		B2	
531	Acer platanoides	7	2/1/1/1	120	1.44	2m all	Y	40+	Good	Fair		B2	
532	Acer platanoides	8	3/4/4/4	270	3.24	2m all	MA	40+	Good	Fair		B1	compression fork
533	Tilia cordata	10	5/5/5/5	460	5.52	2m all	MA	40+	Good	Fair		B1	
534	Prunus avium	6	3/2/0/3	270	3.24	2m n/s	MA	40+	Good	Fair		B2	canker
535	Acer platanoides	8	5/4/4/5	300	3.60	2m all	MA	40+	Good	Fair		B1	
536	Sorbus aucuparia	6	3/3/3/3	200	2.40	2m all	MA	20+	Good	Fair		B1	
537	Prunus avium	8	5/5/5/5	470	5.64	2m all	M	20+	Good	Fair		B1	
538	Alnus glutinosa	14	3/3/3/3	320	3.84	3m all	MA	40+	Good	Fair		B1	outside site
539	Alnus glutinosa	14	4/4/4/4	340	4.08	3m all	MA	40+	Good	Fair		B1	
540	Betula pendula	8	2/2/2/2	140/120	2.22	0m all	MA	20+	Fair	Fair		B2	
TG1	Acer platanoides Sorbus aria	7	3/3/3/3	420	5.04	2m all	MA	40+	Good	Fair		A2	outside site

