Appendix 4; Charles McCorkell Arboricultural Consultancy.

Arboricultural Report

Tree Survey,

Arboricultural Impact Assessment &

Arboricultural Method Statement

In relation to the development proposal at:

Esker House

Esker Road

Esker

Co. Dublin

On behalf of:

Vantage Towers Ltd.

April 2023

230221-PD-11

Additional Information - Item 4

Planning Reference SD22A/0445

CHARLES MCCORKELL
ARBORICULTURAL CONSULTANCY

Contents

Section 1: Arboricultural Impact Assessment

1 Summary

1.1 This arboricultural report has been instructed by Vantage Towers Ltd. (the 'Applicant').

1.2 The proposal is to erect a 24-metre-high lattice telecommunications support structure at Esker House, Esker Road, Esker, Co. Dublin (the 'Application Site').

1.3 This report includes:

- an assessment of the trees, their quality and value in accordance with BS 5837:2012 - Trees in relation to design, demolition and construction;
- the site context and observations on the trees;
- local planning policies relevant to the consideration of trees on the site;
- the impact of the proposed development on the tree population in and around the site;
- methods of reducing impacts on trees; and
- measures to be taken to protect trees during the proposed works.

1.4 In conclusion, the proposed development is achievable in both arboricultural terms and in relation to local planning policy as it relates to trees. No trees are required to be removed to facilitate the development. Tree impacts have been assessed and tree protection measures have been specified in accordance with best practice and are sufficient to safeguard retained trees during the proposed works.

2 Introduction

Instructions

2.1 This arboricultural report has been instructed by Vantage Towers Ltd. to provide information to assist with Item 4 of the request for Additional Information by South Dublin County Council, planning reference SD22A/0445, in relation to the proposed development works at Esker House, Esker Road, Esker, Co. Dublin.

Development proposal

2.2 The proposal is to erect a 24-metre-high lattice telecommunications support structure, together with antennae, dishes and associated telecommunications equipment, all enclosed in security fencing.

Qualification and experience

2.3 This report has been prepared by Charles McCorkell. Charles is a Chartered Arboricultural Consultant dealing with trees in relation to all forms of human activity, including the built environment. He is a Professional Member of the Institute of Chartered Foresters, a Professional Member of the Arboricultural Association, a qualified professional tree inspector (LANTRA), and has a BSc Honours Degree in Arboriculture from the University of Central Lancashire.

Scope and limitations

2.4 The survey undertaken is not a health and safety assessment of trees; however, trees identified as imminently dangerous will have been highlighted and recommendations made, where appropriate.

2.5 The contents of this report are the copyright of Charles McCorkell Arboricultural Consultancy and may not be distributed or copied without the author's permission.

Methodology and guidance

2.6 The author of this report has referred to *British Standard 5837: Trees in relation to design, demolition and construction (2012)* which provides a methodology for the assessment of trees and other significant vegetation on development sites.

2.7 The BS 5837 (2012) recommends the National Joint Utilities Group (NJUG) document *Guidelines for the planning, installation and maintenance of utility apparatus in the proximity to trees.* Volume 4, issue 2. London: NJUG, 2007, as a normative reference for guidance on the installation of utilities within proximity to trees.

Supporting information

2.8 This report should be read in conjunction with the following supporting documents attached to this report.

Document	Reference	Location
Arboricultural Method Statement	N/A	Section 2
Tree Schedule	230221-PD-10	Appendix A
Tree Work Schedule	230221-PD-12	Appendix A
Tree Survey & Constraints Plan	230221-P-10	Appendix B
Tree Protection Plan	230221-P-11	Appendix B

Definitions

2.9 **Root Protection Area (RPA)** – a layout design tool indicating the area surrounding a tree that contains sufficient rooting volume to ensure the survival of the tree.

2.10 **Tree Protection Zone (TPZ)** – an area based on the RPA in m^2 identified by an arboriculturist, to be protected during development, including demolition and construction work, by the use of barriers and/or ground protection fit for purpose to ensure the successful long-term retention of a tree.

3 Observations & Context

Site visit

3.1 The site was visited by Charles McCorkell on 24 March 2023. The purpose of the visit was to survey trees which may be of significance to the proposed development. The survey was carried out in accordance with BS 5837:2012 and from ground level only.

Site location and description

3.2 The Application Site is located in the northern corner of Esker House (Map 1).

3.3 The trees located within the vicinity of the development works includes a mixture of ash, alder, willow, elder, and Norway maple along the western and northern boundaries and some mature cherry and late-mature horse chestnut trees within the eastern garden area.

Map 1 (Google 2023): *Yellow line highlighting the approximate location of the proposed development works within Esker House. The green circle indicates the location where the tree survey was undertaken. This is more than the required 10m radius from the development infrastructure as requested within Item 4(a) of the Additional Information request.*

View of the site and trees

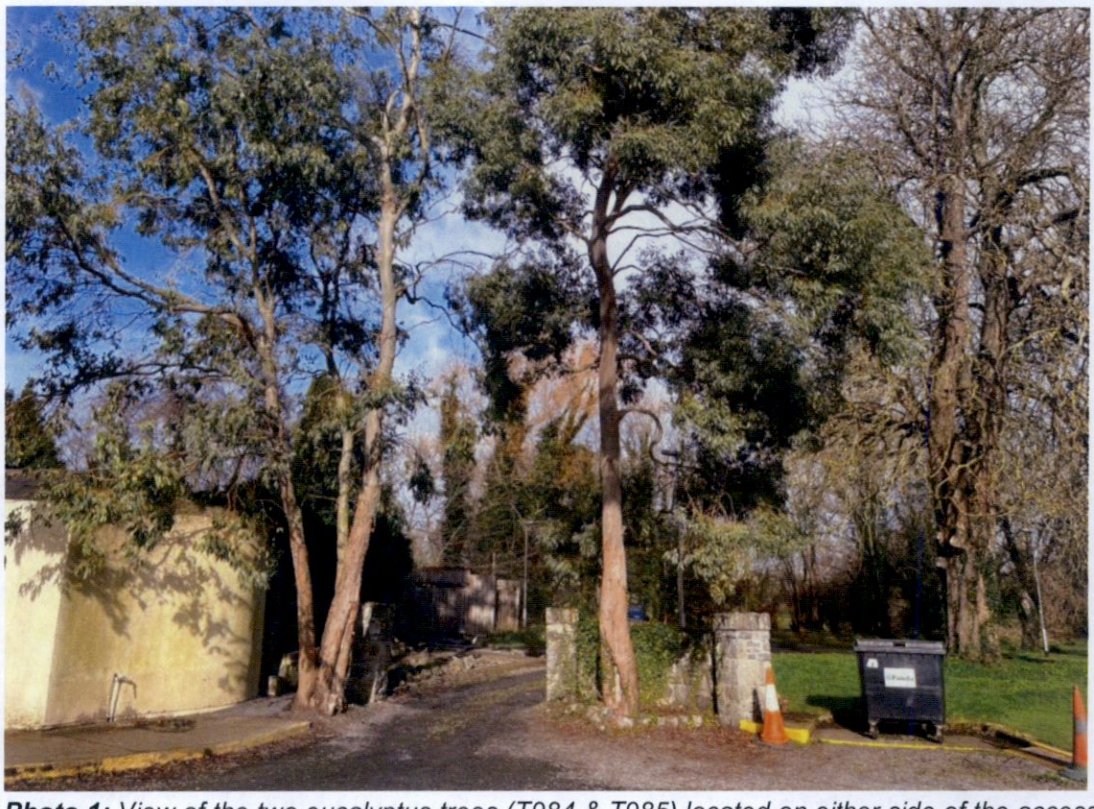

Photo 1: *View of the two eucalyptus trees (T984 & T985) located on either side of the access gates to the site location.*

Photo 2: *View of the mature cherry (T468) and late-mature horse chestnut trees (T469 & T470) located within the grassed garden area to the east of the proposed tower.*

Photo 3: *View of the northern boundary tree line and area of existing hard standing located adjacent to the proposed tower.*

Photo 4: *View of the willow T465 located adjacent to the proposed tower. Red area highlights the approximate location of the tower.*

4 Local Planning Policy

South Dublin County Development Plan 2022-2028

4.1 The County Development Plan 2022-2028 contains the following policies that relate to trees and are to be considered:

NCBH11 Objective 3

To protect and retain existing trees, hedgerows, and woodlands which are of amenity and/or biodiversity and/or carbon sequestration value and/or contribute to landscape character and ensure that proper provision is made for their protection and management taking into account Living with Trees: South Dublin County Council's Tree Management Policy (2015-2020) or any superseding document and to ensure that where retention is not possible that a high-value biodiversity provision is secured as part of the phasing of any development to protect the amenity of the area.

Tree Management Policy 2015-2020

4.2 The South Dublin County Council Tree Management Policy 'Living with Trees' 2015-2020 contains information within Chapter 7 Trees and Development that relates to the retention, protection and planting of trees on development sites. Relevant points within this section include:

- The Council will use its powers to ensure that where it is conductive with the objectives of the County Development Plan, and other planning objectives there is maximum retention of trees on new development sites.
- In the processing of planning applications, the Council will seek the retention of trees of high amenity / environmental value taking consideration of both their individual merit and their interaction as part of a group or broader landscape feature.
- On construction sites all work must be in accordance with British Standard 5837 (2012): Trees in Relation to Design, Demolition and Construction – Recommendations.
- The Council will promote the replacement of trees removed to facilitate approved planning and development of urban spaces, buildings, streets, roads, infrastructural projects and private development sites.

5 Technical Information

Tree data

5.1 The Tree Survey & Constraints Plan at Appendix B illustrates the location of trees, the extent of the spread of their crowns, and their root protection areas. Dimensions, comments and information for each tree are given in the Tree Schedule at Appendix A.

Life stage analysis

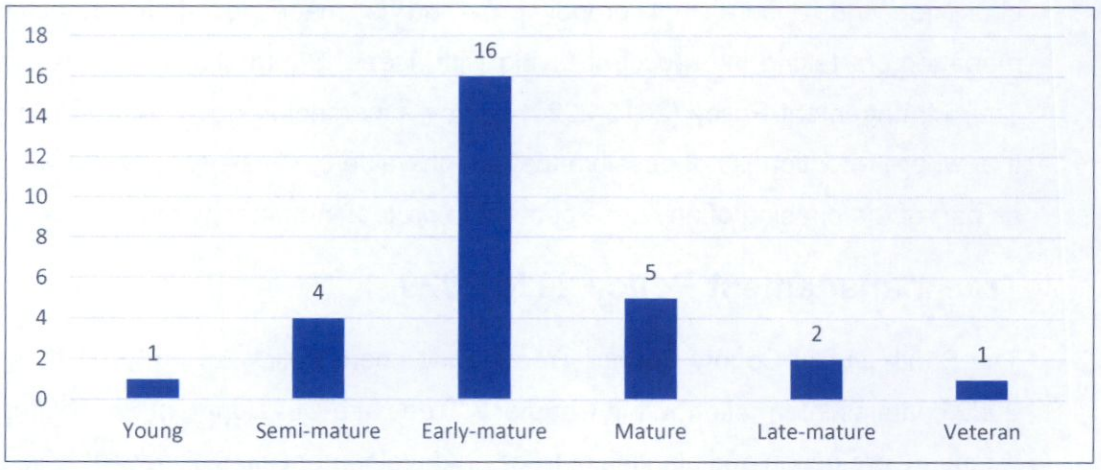

Figure 1: *Life stage analysis of the 29 survey entries recorded.*

BS5837 (2012) category breakdown

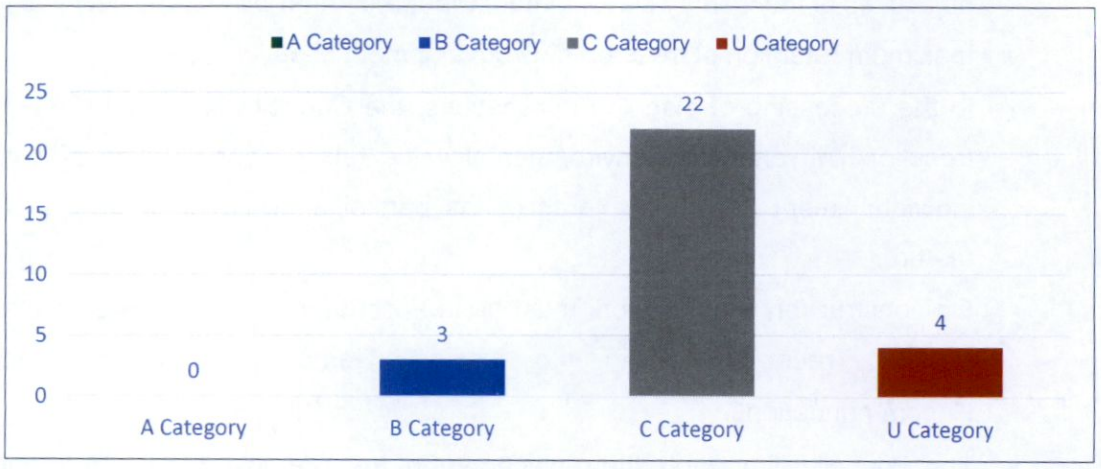

Figure 2: *Breakdown of BS5837:2012 categories of the 29 survey entries recorded.*

6 Analysis of the Proposal in Respect of Trees

Arboricultural Impacts

6.1 ***Loss of trees*** – No trees are required to be removed to facilitate the development.

6.2 ***Pruning works*** – Crown pruning works are required to facilitate the development. These works will include crown lifting low growing branches to provide clearance for construction vehicles and reducing the length of laterals overhanging the proposed tower and crane working area. These works are considered minor and will not have a negative impact on the health or visual appearance of the trees concerned. Details of these proposed works are specified within the Tree Work Schedule at Appendix A.

6.3 ***Site access & compound area*** – The existing site access route and rear car parking area will be used as the main construction access route and compound area during site operations. These are areas of existing hard standing that will act as ground protection and will not have a negative impact on the rooting areas of the trees.

6.4 ***Construction operations*** – The proposed location of the tower has been revised to reduce the impact on the surrounding trees following the initial arboricultural survey. Excavation works are still required within the RPA of T465; however, this is only considered to be minor. The level of incursion is 6% of the tree's overall theoretical RPA and is located at the periphery of its rooting area, where significant roots are unlikely to be present. Considering the minor extent of this encroachment, the required excavation works will not have a negative impact on the health or condition of the tree.

6.5 As these works are required within the tree's theoretical RPA, it will be necessary to carry them out under arboricultural supervision. Exposed roots will need to be cleanly pruned with the use of a sharp sterile pruning tool to the edge of the excavated trench and a separation member installed between any liquid cement and the soil environment.

6.6 ***Installation of underground services*** – A proposed power cable is required to be installed to the west of the crane that will be used to erect the tower. This power supply will be laid within the area of existing hard standing. Considering excavation works have been carried out within this location in the recent past, it is highly unlikely that tree roots will be impacted as a result.

6.7 It is still necessary that the excavation works required to install the cable are carried out under the supervision of the arboricultural consultant and where roots greater

25mm in diameter are uncovered, that these are retained and protected. Root pruning can only be undertaken if approved by the arboricultural consultant.

6.8 Where additional services are required to be installed, their route must be agreed upon by the arboricultural consultant to ensure that the existing trees are not negatively impacted and that special methods of construction can be implemented to protect trees if required.

6.9 In the first instance, the location of services must avoid the RPAs of retained trees. If avoiding RPAs is not possible, the installation of underground services must adhere to industry best practice. The BS 5837:2012 recommends the National Joint Utilities Group Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees Volume 4, issue 2: NJUG, 2007 as a normative reference in these instances.

6.10 ***Tree protection measures*** **–** All trees can be successfully protected during the proposed development works by using robust fencing measures which comply with the recommendations outlined within BS 5837:2012.

6.11 For details of the tree protection measures required during construction, please refer to the Method Statement within Section 2 and the Tree Protection Plan at Appendix B.

7 Discussion & Conclusion

General Change

7.1 The removal of trees is not required to facilitate the development. Although the pruning of lateral branches will be necessary, no trees are required to be reduced in height. The development will therefore have a neutral impact on the visual appearance and character of the site and local surrounding area.

Proposal in relation to local planning policy

7.2 The proposed development complies with local planning policies as they relate to trees. It has been assessed in accordance with best practice BS5837:2012 and the design has been revised to ensure that no trees are required to be removed. Provided the recommendations as detailed within this report are followed, all retained trees can be successfully protected for the duration of construction.

Conclusion

7.3 The proposal has been assessed in accordance with BS5837:2012 and where required, special working methods have been recommended to minimise tree impacts.

7.4 All trees can be successfully protected during the development by following the information provided within this report and adhering to industry best practice.

7.5 Provided the recommendations and methods of work as outlined within this report are followed, the proposed development can be successfully carried out without having a significant impact on the character or appearance of the surrounding landscape.

Section 2: Arboricultural Method Statement

Introduction
This report has been prepared in accordance with British Standard 5837: Trees in relation to design, demolition and construction – Recommendations (2012) which provides a methodology for the assessment and protection of trees and other significant vegetation on development sites.
Sequence of Operations
• Proposed tree works. • Installation of tree protection measures. • Enabling works, including the installation of a site compound. • Construction. *Alternative sequences can be discussed and agreed upon with the local authority and project manager if required.*
Supervision
All key/critical activities that will affect trees during construction will be inspected and monitored by the approved arboricultural consultant. • Inspection of tree works and tree protection measures prior to the commencement of works; • Supervision during the excavation works within the RPA of T465; • Supervision during the installation of services within the RPAs of trees; • Supervision during all working operations within tree RPAs; and • Tree inspection upon completion.
Arboricultural Method Statement

Scope	**Methodology**
Tree Works	Please refer to the Tree Work Schedule at Appendix A for a list of all proposed tree works. The location of trees is shown on the Tree Protection Plan at Appendix B. It is the responsibility of the Site Manager to ensure all tree works have been approved by the local planning authority.

	All tree works will be carried out by a reputable arboricultural contractor in accordance with the recommendations given in BS 3998:2010 – Tree Work Recommendations. All tree works should be carried out in accordance with Section 40 of the Wildlife Act 1976 and Section 46 of the Wildlife (Amendment) Act 2000. It is the responsibility of the arboricultural contractor to ensure that no protected species are harmed whilst carrying out site clearance or tree surgery works.
Tree Protection	The position of tree protection measures is shown on the Tree Protection Plan at Appendix B. Protective fencing will be constructed and installed in accordance with BS5837:2012, please refer to the Tree Protection Plan for the specification. Alternatives to those shown must be agreed upon in advance by the arboricultural consultant. If ground protection measures are required during the construction, they must be installed in accordance with industry best practice guidance as stated within Section 6.2.3.3 of BS5837:2012. No materials or equipment other than those required to erect protective fencing will be delivered to the site before the fencing is installed. Signs will be fixed to every third panel stating, *'Tree Protection Area Keep Out – Any incursion into the protected area must be with the agreement of the local authority or arboricultural consultant'*. The main contractor will inform the arboricultural consultant that tree protection is in place before site clearance works commence. No alteration, removal or repositioning of the tree protection will take place without the prior consent of the arboricultural consultant.
Compound Area	The site compound must be located outside the designated TPZs as highlighted in the Tree Protection Plan at Appendix B. No excavation works within tree RPAs are permitted to install temporary services for site cabins and facilities. Any temporary services within tree RPAs must be above ground and protected accordingly. No operating generators or toxic liquids will be stored within the RPAs of retained trees during construction. Overhanging tree canopies must be taken into consideration when transporting, installing and removing site cabins near tree crowns. A

	banksman will be present during this process to ensure that all operations are carried out in a controlled manner and no part of the cabin meets overhanging tree crowns.
Excavation within The RPA of T465	Excavation works within the RPA of T465, as highlighted on the Tree Protection Plan, will be carried out under arboricultural supervision. Root pruning will only be carried out under the guidance of the arboricultural consultant, using sharp, sterile tools suitable to the size of the root to be cut. Where possible roots will be pruned cleanly back to a side branch. Once excavated, the edge of the trench will be lined using 1000-gauge polythene to prevent any liquid cement from leaching into the surrounding soil.
Service Installation	All methods of work for the installation of service runs within the RPAs of retained trees will follow the National Joint Utilities Group (NJUG) *Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees*. Volume 4, issue 2, London NJUG 2007. Unless otherwise approved by the arboricultural consultant, any approved works within the TPZ will be carried out using hand tools such as an air lance and vacuum excavator. All roots greater than 25mm in diameter and large clumps of roots will be retained and will be immediately wrapped in dry hessian to prevent desiccation and temperature fluctuations. Roots will be pushed aside to allow for runs to be installed. In some cases, individual roots less than 25mm in diameter may be pruned, making a clean cut with a suitable sharp sterile tool (e.g. secateurs or hand saw). Prior to root pruning taking place, the contractor will consult the arboricultural consultant. Trenches should not remain open for more than one day. If this is unavoidable, any exposed roots should be watered and covered with hessian until the area is backfilled with soil. No machinery will be permitted within the TPZ at any time unless ground protection is installed and agreed upon with the arboricultural consultant beforehand. The requirement for temporary ground protection must be installed in accordance with Section 6.2.3.3 of BS 5837:2012. Prior to the service installation works commencing within RPAs, the arboricultural consultant will be contacted, and a date agreed upon for a

	site meeting to run through the proposed methods of work on-site with the site manager and relevant site operatives.
General Principals to Avoid Damage to Trees	No fires will be permitted within 20m of the crown of any tree. No materials, vehicles, plant or personnel will be permitted into the tree protection zones at any time without the prior consent of the arboricultural consultant. Any liquid materials spilt on site will be immediately cleared up and removed from the site. If liquid fuel or cement products are spilt 2m of the tree protection zone, the contractor will report the incident to the arboricultural consultant immediately. The contractor will report any damage to trees or shrubs, whether caused by construction activities or from any other cause to the arboricultural consultant immediately.

Appendix A - Schedule

Document	Reference	Revision
Tree Schedule	230221-PD-10	-
Tree Work Schedule	230221-PD-12	-

230221-PD-10-Tree schedule

CHARLES MCCORKELL
ARBORICULTURAL CONSULTANCY

230221 - Esker House

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T1	1	Fraxinus excelsior (Ash)	9.0	42 COM	2		1.0		4.0		4.5		4.0	2.0		Early Mature	Structural condition Poor. Physiological condition Poor. Access to inspect base - Not possible. Competition - Adjacent trees. Ivy or climbing plant. Shedding limb / limbs - Historic. Suppressed crown - Major. Unbalanced crown - Major. Unable to inspect tree closely as located in neighbouring property. Tree is infected with ash dieback.	24/03/2023	81.4	5.1	0-10	U
Tree T2	1	Salix alba (White Willow)	17.0	75 COM	2		12.0		8.0		9.0		8.0	0.0		Mature	Structural condition Poor. Physiological condition Fair. Access to inspect base - Not possible. Branch weight - Heavy. Branch - Suspended. Ivy or climbing plant. Shedding limb / limbs - Historic. Unable to inspect tree closely as located in neighbouring property.	24/03/2023	254.5	9.0	10-20	C2
Tree T3	1	Alnus glutinosa (Common Alder)	13.0	18	1		3.0		2.0		2.0		2.0	9.0		Semi Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Deadwood - Minor. Ivy or climbing plant. Tree is located on neighbouring site.	24/03/2023	14.7	2.2	10-20	C2
Tree T4	1	Sambucus nigra (Elder)	7.0	33 COM	2		5.0		4.0		4.0		4.5	0.0		Mature	Structural condition Fair. Physiological condition Fair. Access to inspect base - Not possible. Competition - Adjacent trees. Deadwood - Minor. Tree is located on neighbouring site.	24/03/2023	50.9	4.0	10-20	C2
Tree T5	1	Sambucus nigra (Elder)	4.0	25	1		3.0		3.0		3.0		3.0	0.0		Early Mature	Structural condition Fair. Physiological condition Fair. Access to inspect base - Not possible. Competition - Adjacent trees. Deadwood - Minor. Tree is located on neighbouring site.	24/03/2023	28.3	3.0	10-20	C2
Tree T6	1	Fraxinus excelsior (Ash)	6.0	14 COM	2		2.0		3.0		4.0		2.0	3.0		Young	Structural condition Fair. Physiological condition Fair. Tree is located on neighbouring site.	24/03/2023	9.0	1.7	10-20	C2

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

Generated By MyTREES tree management software

Printed on 26/03/23 (BS5837 Tree Schedule (with recs) - tables)

230221 - Esker House

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T7	1	Sambucus nigra (Elder)	5.0	15	1		3.0		3.0		3.0		3.0	1.0		Semi Mature	Structural condition Fair. Physiological condition Good. Access to inspect base - Not possible. Tree is located on neighbouring site.	24/03/2023	10.2	1.8	20-40	C2
Tree T8	1	Alnus glutinosa (Common Alder)	9.0	30	1		5.5		1.0		1.0		4.0	4.0		Early Mature	Structural condition Poor. Physiological condition Fair. Competition - Adjacent trees. Deadwood - Minor. Suppressed crown - Major. Unbalanced crown - Major. Tree is located on neighbouring site.	24/03/2023	40.7	3.6	10-20	C2
Tree T9	1	Populus sp. (Poplar sp.)	24.0	65	1	7.0		6.5		7.0		7.0		5.0		Mature	Structural condition Fair. Physiological condition Good. Ivy or climbing plant. Unable to inspect tree closely as located in neighbouring property.	24/03/2023	191.1	7.8	20-40	B2
Tree T10	1	Acer platanoides (Norway Maple)	10.0	20	1	2.0		2.0		3.0		6.0		2.0		Early Mature	Structural condition Fair. Physiological condition Fair. Ivy or climbing plant. Unable to inspect tree closely as located in neighbouring property.	24/03/2023	18.1	2.4	20-40	C2
Tree T11	1	Acer platanoides (Norway Maple)	13.0	35	1	4.0		5.0		3.0		5.0		2.0		Early Mature	Structural condition Fair. Physiological condition Fair. Bark wound - Squirrel. Ivy or climbing plant. Unable to inspect tree closely as located in neighbouring property.	24/03/2023	55.4	4.2	10-20	C2
Tree T12	1	Acer platanoides (Norway Maple)	14.5	35	1	2.5		1.0		3.0		5.0		2.0		Early Mature	Structural condition Fair. Physiological condition Fair. Ivy or climbing plant. Unable to inspect tree closely as located in neighbouring property.	24/03/2023	55.4	4.2	10-20	C2
Tree T465	1	Salix alba (White Willow)	20.0	60	1		8.0		8.0		7.0		8.0	3.0		Mature	Structural condition Poor. Physiological condition Fair. Arboricultural work - Recent. Branch - Broken. Branch - Suspended. Decay / structural defect in crown limb / limbs - Localised. Deadwood - Minor. Decay / structural defect - Localised. Shedding limb / limbs - Major. Storm damage.	24/03/2023	162.9	7.2	10-20	C2
Tree T467	1	Alnus glutinosa (Common Alder)	13.0	40	1		4.0		3.0		3.0		3.0	1.5		Early Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Deadwood - Minor. Ivy or climbing plant. Tree is located on neighbouring site.	24/03/2023	72.4	4.8	10-20	C2

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

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230221 - Esker House

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T468	1	Cerasus avium (Wild Cherry)	12.5	67	1	9.0		3.5		6.0		8.5		2.5		Late Mature	Structural condition Poor. Physiological condition Fair. Arboricultural work - Historic. Competition - Adjacent trees. Decay / structural defect - Principal stems. Fungal fruiting body - structural decay suspected. Fork - Weak with included bark. Suppressed crown - Minor. Unbalanced crown - Minor.	24/03/2023	203.1	8.0	10-20	C2
Tree T469	1	Aesculus hippocastanum (Horse Chestnut)	19.0	143	1	7.0		7.5		8.5		5.5		2.5		Ancient / Veteran	Structural condition Poor. Physiological condition Poor. Bark exudation. Die-back - Upper crown. Decay / structural defect - Base. Fork - Weak with included bark. Stag-headed crown. Bleeding canker of horse chestnut.	24/03/2023	706.9	15.0	10-20	B3
Tree T470	1	Aesculus hippocastanum (Horse Chestnut)	25.5	115	1	11.0		8.5		8.0		8.0		2.5		Late Mature	Structural condition Poor. Physiological condition Fair. Bark exudation. Bark wound - Minor. Decay / structural defect in crown limb / limbs - Extensive. Decay / structural defect - Minor. Fork - Weak with included bark. Bleeding canker of horse chestnut.	24/03/2023	598.3	13.8	10-20	B3
Tree T984	1	Eucalyptus sp. (Eucalyptus Tree)	18.5	48 COM	3	4.0		6.5		5.5		5.5		2.5		Early Mature	Structural condition Fair. Physiological condition Poor. Bark wound - Major. Die-back - Throughout crown. Deadwood - Minor. Decay / structural defect - Base. Root environment - Restricted. Structural impact - Potential.	24/03/2023	107.7	5.9	10-20	C2
Tree T985	1	Eucalyptus sp. (Eucalyptus Tree)	15.5	42	1	4.5		8.0		3.5		3.5		2.0		Early Mature	Structural condition Poor. Physiological condition Fair. Bark wound - Major. Deadwood - Minor. Leaning trunk - Major. Root environment - Restricted.	24/03/2023	79.8	5.0	10-20	C2
Tree T986	1	Cerasus avium (Wild Cherry)	12.5	26	1	5.5		5.5		4.0		4.0		1.5		Early Mature	Structural condition Good. Physiological condition Good. Suppressed crown - Minor.	24/03/2023	30.6	3.1	40+	C1
Tree T987	1	Fraxinus excelsior (Ash)	16.0	52 COM	2	6.0		4.0		3.0		10.0		5.0		Early Mature	Structural condition Poor. Physiological condition Fair. Competition - Adjacent trees. Ivy or climbing plant. Leaning trunk - Minor.	24/03/2023	123.9	6.3	10-20	C2

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

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230221 - Esker House

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T988	1	Fraxinus excelsior (Ash)	8.0	18	1	5.0		1.0		1.0		3.0		3.0		Semi Mature	Structural condition Poor. Physiological condition Fair. Competition - Adjacent trees. Suppressed crown - Major. Unbalanced crown - Major.	24/03/2023	14.7	2.2	10-20	C2
Tree T989	1	Fraxinus excelsior (Ash)	14.0	30	1	4.0		7.0		2.0		8.0		6.0		Early Mature	Structural condition Poor. Physiological condition Poor. Competition - Adjacent trees. Deadwood - Minor. Ivy or climbing plant. Suppressed crown - Minor. Unbalanced crown - Major. Tree is infected with ash dieback.	24/03/2023	40.7	3.6	0-10	U
Tree T990	1	Fraxinus excelsior (Ash)	16.0	28	1	4.0		5.5		3.0		5.5		6.0		Early Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Deadwood - Minor. Ivy or climbing plant.	24/03/2023	35.5	3.4	10-20	C2
Tree T991	1	Fraxinus excelsior (Ash)	16.0	34	1	2.0		6.0		4.5		7.0		2.5		Early Mature	Structural condition Fair. Physiological condition Fair. Branch - Broken. Competition - Adjacent trees. Deadwood - Minor. Ivy or climbing plant.	24/03/2023	52.3	4.1	10-20	C2
Tree T992	1	Fraxinus excelsior (Ash)	17.0	48 COM	4	6.0		5.5		5.0		6.0		2.0		Early Mature	Structural condition Poor. Physiological condition Fair. Coppice stool - Coppice origin / Mature stems. Deadwood - Minor. Fork - Weak with included bark. Ivy or climbing plant.	24/03/2023	104.2	5.8	10-20	C2
Tree T993	1	Fraxinus excelsior (Ash)	15.0	16	1	2.0		2.0		2.0		2.0		12.0		Semi Mature	Structural condition Poor. Physiological condition Fair. Competition - Adjacent trees. Ivy or climbing plant. Suppressed crown - Major.	24/03/2023	11.6	1.9	0-10	U
Tree T994	1	Fraxinus excelsior (Ash)	16.0	40 COM	5	5.0		6.5		3.5		5.5		2.5		Early Mature	Structural condition Poor. Physiological condition Fair. Coppice stool - Coppice origin / Mature stems. Die-back - Upper crown. Root damage - Severence. Tree is infected with ash dieback.	24/03/2023	73.3	4.8	10-20	C2

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

230221 - Esker House

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T995	1	Fraxinus excelsior (Ash)	17.0	60	1	5.5		6.0		5.0		8.5		10.0		Mature	Structural condition Poor. Physiological condition Fair. Arboricultural work - Historic. Decay / structural defect - Localised. Epicormic growth - Base. Fork - Weak with included bark. Root damage - Severence. Weak live growth. Tree is infected with ash dieback.	24/03/2023	162.9	7.2	0-10	U

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

Generated By MyTREES tree management software

Table 1 of BS5837 (2012) **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 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 4.5.7			**RED**
	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	Tree 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 arboricutural and/or landscape features.	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture).	**GREEN**
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.	**BLUE**
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 benefits.	Trees with no material conservation or other cultural value.	**GREY**

230221-PD-12 - Planning Tree Works Schedule

230221 - Esker House

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ID	No. / Species	BS5837 Category	Purpose of works Recommended works	Status
T465	1 *Salix alba* White Willow	C2	To facilitate development Reduce lateral limb / limbs. Reduce lateral growth to provide clearance for proposed development works.	Proposed
T468	1 *Cerasus avium* Wild Cherry	C2	To facilitate development Reduce lateral limb / limbs. Reduce lateral growth to provide clearance for proposed development works.	Proposed
			To facilitate development Lift low canopy - Specified extent. Crown lift to 5m above ground level to allow for construction access.	Proposed
T470	1 *Aesculus hippocastanum* Horse Chestnut	B3	To facilitate development Lift low canopy - Specified extent. Crown lift to 5m above ground level to allow for construction access.	Proposed
T984	1 *Eucalyptus sp.* Eucalyptus Tree	C2	To facilitate development Lift low canopy - Specified extent. Crown lift to 5m above ground level to allow for construction access.	Proposed
T985	1 *Eucalyptus sp.* Eucalyptus Tree	C2	To facilitate development Lift low canopy - Specified extent. Crown lift to 5m above ground level to allow for construction access.	Proposed
T989	1 *Fraxinus excelsior* Ash	U	To facilitate development Reduce lateral limb / limbs. Reduce lateral growth to provide clearance for proposed development works.	Proposed
T990	1 *Fraxinus excelsior* Ash	C2	To facilitate development Reduce lateral limb / limbs. Reduce lateral growth to provide clearance for proposed development works.	Proposed
T991	1 *Fraxinus excelsior* Ash	C2	To facilitate development Reduce lateral limb / limbs. Reduce lateral growth to provide clearance for proposed development works.	Proposed
T992	1 *Fraxinus excelsior* Ash	C2	To facilitate development Reduce lateral limb / limbs. Reduce lateral growth to provide clearance for proposed development works.	Proposed
T994	1 *Fraxinus excelsior* Ash	C2	To facilitate development Reduce lateral limb / limbs. Reduce lateral growth to provide clearance for proposed development works.	Proposed

Appendix B - Plans

Document	Reference	Revision
Tree Survey & Constraints Plan	230221-P-10	-
Tree Protection Plan	230221-P-11	-

This drawing is to be read in conjunction with the respective arboricultural schedules and reports relevant to this project.

Where contradictions between this drawing and any other design information becomes apparent, the respective authors should be contacted immediately.

It is the responsibility of the main site contractor to check and verify all information and measurements onsite and confirm prior to the commencement of works, and to ensure that all site operatives work in accordance with respective arboricultural reports and BS5837:2012, Trees in relation to design, demolition and construction.

BS5837:2012 Tree Categorisation

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

Category B
Trees of moderate quality with an estimated life expectancy of at least 20 years

Category C
Trees of low quality with an estimated life expectancy of at least 10 years, or young trees with a stem diameter below 150mm

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

Key

Root Protection Areas
The minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the trees viability.

T10 — Tree/Group Reference Number

Tree, shrub, or hedge group.

Site boundary.

N

0 5m 10m 15m

Revision	Date	Description

Title: Tree Survey & Constraints Plan

Project: Esker House, Esker Road

Client: Vantage Towers Ltd.

Date: Mar 2023	Scale: 1:300 @ A3	Status: AI Request	
Drawn by: CMcC	Dwg ref: 230221-P-10	Rev: -	
Checked by: CMcC			

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Lateral branches overhanging the tower and crane working area are required to be reduced to provide sufficient working space.

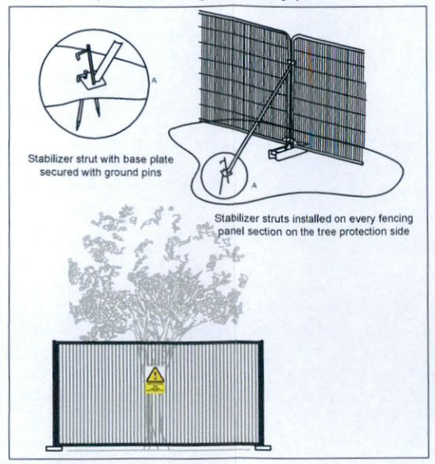
Tree Protective fencing to be set up along the existing kerb line between the hard standing and soft landscaped areas.

Low hanging branches to be crown lifted along access route to 5m above ground level.

CRANE SET-UP AREA

T8 T467 T3 T4 T5 T465 T6 T7 T988 T987 T12 T989 T990 T11 T991 T10 T992 T9 T993 T994 T995 T468 T469 T986 T2 T1 T470 T985 T984

Tree Protection Specification - Above ground stabilizing system



BS5837:2012 Figure 3

This drawing is to be read in conjunction with the respective arboricultural schedules and reports relevant to this project.

Where contradictions between this drawing and any other design information becomes apparent, the respective authors should be contacted immediately.

It is the responsibility of the main site contractor to check and verify all information and measurements onsite and confirm prior to the commencement of works, and to ensure that all site operatives work in accordance with respective arboricultural reports and BS5837:2012, Trees in relation to design, demolition and construction.

BS5837:2012 Tree Categorisation

- Category A: Trees of high quality with an estimated remaining life expectancy of at least 40 years
- Category B: Trees of moderate quality with an estimated life expectancy of at least 20 years
- Category C: Trees of low quality with an estimated life expectancy of at least 10 years, or young trees with a stem diameter below 150mm
- 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

Key

- Root Protection Areas: The minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the trees viability.
- T10 — Tree/Group Reference Number
- Tree, shrub, or hedge group.
- Site boundary.
- Tree Protection Zone - Protective fencing to be installed as per Specification. Designated Construction Exclusion Zone.
- Area of existing hard standing to be retained and act as ground protection. If required, reinforce by adding additional stone or ground mats.
- Excavation works within the RPAs of trees to be carried out under arboricultural supervision.

N

0 5m 10m 15m

Revision	Date	Description

Title: Tree Protection Plan

Project: Esker House, Esker Road

Client: Vantage Towers Ltd.

Date: Mar 2023	Scale: 1:300 @ A3	Status: AI Request
Drawn by: CMcC	Dwg ref: 230221-P-11	Rev: -
Checked by: CMcC		

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