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Ref: SGPP079656677

9th January 2023

For the Attention of Mr. Eoin O'Brien
Executive Parks Superintendent
Parks, Community & Cultural Development Department
Dún-Laoghaire Rathdown County Council
Marine Road
Dún- Laoghaire
Co. Dublin

Dear Mr. O'Brien,

Re: An Arboricultural Assessment of the Site Area for the Sports Facility Project at 'Shanganagh Park', Shankill, Dublin 18.

I have carried out my assessment of the tree vegetation on the above site area as requested and have reviewed the proposed development layout drawings and am pleased to submit my report and drawings. The following documents have been prepared by us to form part of this planning application:

Title	Dwg No.	Page Size	Scale
Tree Constraints Plan	SGSF001	A0 (Colour)	1:500
Tree Protection Plan	SGSF002	A0 (Colour)	1:500
Arboriculture Report	--	A4	--

If you require further information please do not hesitate to contact us, and we will do our best to be of assistance.

Yours sincerely,
For Arborist Associates Ltd.

Felim Sheridan

Felim Sheridan,
F. Arbor. A, RFS Dip, Nat. Dip & NCH in Arboriculture.

Felim Sheridan's qualifications:
Fellow of the Arboricultural Association (F. Arbor. A), Professional diploma Arboriculture (RFS), National diploma Arboriculture (ND) and National certificate Horticulture (NCH).

Arborist Associates Ltd.

An Arboricultural Assessment of the Site Area for the Sports Facility Project at 'Shanganagh Park', Shankill, Dublin 18.

Prepared for: Dùn-Laoghaire Rathdown County Council

Prepared by: Felim Sheridan (F. Arbor.A, RFS Dip. Nat. Dip & NCH in Arboriculture)

Date: 9th January 2023

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1.0 Instructions

1.1 I have been instructed by Mr. Eoin O'Brien for Dún-Laoghaire Rathdown County Council Parks, Community & Cultural Development Department of to carry out an assessment of the tree vegetation within the site area for the Sports Facility Project at 'Shanganagh Park', Shankill, Dublin 18 and to report on the following:

A - To assess the present condition of the tree vegetation within and adjoining the site area. See 'Appendix 2' for detail of my findings and drawing No.SGSF001 which I have prepared as a 'Constraints Drawing' to aid the design team in the layout of any development proposals for this site area.

B - To assess the impact of the proposed development layout on the tree vegetation located within the site area indicating those for removal and retention. See 'Section 5' of this report and drawing 'No.SGSF002 for detail.

C - To show the position of the tree protective fencing and other tree protection measures that will need to be put in place at the commencement of the works and be maintained in place until all construction works are complete. See 'Section 6.0' or our report and Drawing No.SGSF002' for detail.

2.0 Report Limitations

2.1 The inspection of these trees has been carried out from ground level only, is a preliminary report and does not include climbing inspections, internal investigations of the timber or below ground investigations. The assessment is based on what was visible at the time of the inspection and recommendations made are subject to the knowledge and expertise of the qualified Arboriculturist that carried out the above inspections.

2.2 This report only relates to factors apparent at the time of the inspection; as a result, further monitoring is imperative if potential problems/hazards are to be avoided. Recommendations made are intended to minimize or to help reduce potential hazards that may be associated with trees, but it is not possible to remove all such risks especially in the event of heavy winds or storms and as such, there is no guarantee or certainty that all hazardous conditions will be detected. The recommendations within this report are valid for a 12 month period only, unless otherwise stated within the recommendations of the attached report.

3.0 Survey Data Collection and Methodology

3.1 The assessment starts in the north-west corner of the site area with the tree belt to the east of the entrance from 'St. Anne's Park' and works in a clock-wise direction. The individual trees within the site area were tagged with the tag reference numbers 1301-1341 and the tree belts, tree groups, woodland blocks and hedges have been numbered numerically. The tag numbers are attached to the trees at a height of 1.5-2m from ground level and are orientated in such a way to assist in their relocation.

3.2 The inspection of the trees involves a visual assessment from ground level only and does not include any invasive means of assessing the trees internally, their below ground parts or the aerial parts that are not visible from the ground. Good, fair and poor have been used to summarise the physiological and structural conditions of

these trees with the comments giving more detail. Other items that may limit the assessment of a tree included Ivy cover, scrub vegetation and/or basal suckers.

3.3 Their retention category has been assessed and categorized according to their quality and value within the existing context (BS-4.5), and not in conjunction with any proposed development plans. In making this assessment, particular consideration was given to:

Arboricultural Value – An assessment of the trees health, structural form, life expectancy, species and its physical contribution to or effects on other features located on site.
Landscape Value – An assessment of a trees locality including its contributions to other features as well as to the site as a whole.
Cultural Value – Additional contributions made such as conservation, historical or commemorative value.

3.4 The trees have been divided into one of the following categories, in accordance with the cascade chart illustrated in table 1 of BS 5837:2012. The classification process begins by determining whether the tree falls within the (U) category, if not then the process will continue by assuming that all trees are considered according to the criteria for inclusion in the high category (A). Trees that do not meet these strict criteria will then be considered in light of the criteria for inclusion in the moderate category (B) and failing this, they will be allocated a low category (C).

The following summarizes each of the categories:

Category U – Those trees in such a condition that any existing value would be lost within 10 years. These would be seen as trees that have little or no potential either due to their physiological and/or structural condition and their removal would be seen necessary either now or in the short-term as the most appropriate management option.

From our assessment of the tree vegetation within this site area, no trees were categorized as 'U'.

Category A - Trees of high quality/value with a minimum of 40 years life expectancy. These would be seen as trees that have the potential to contribute to the tree cover of these grounds for the long-term and consists of trees of all age classes from semi-mature to mature.

The category 'A' trees within this site area have been identified on our drawings (Nos.SGSF001 & SGSF002) with a 'Green' donut around their trunk positions.

Category B – Trees of moderate quality/value with a minimum of 20 years life expectancy. These would be seen as trees that have the potential to contribute to the tree cover of these grounds for the medium term and consists of trees of all age classes from semi-mature to mature.

The category 'B' trees within the site area have been identified on our drawings (Nos.SGSF001 & SGSF002) with a 'Blue' donut around their trunk positions.

Category C – Trees of low quality/value with a minimum of 10 years life expectancy

These trees would be seen as having the potential to provide tree cover for the short to medium term. These trees should not been seen as a considerable constraint on the development of this site area, but should be considered for retention where viable.

The category 'C' trees within this site area have been identified on our drawings (Nos.SGSF001 & SGSF002) with a 'Grey' donut around their trunk positions.

3.5 The trees have been plotted onto the attached drawing (DWG No.SGSF001) by a land survey company. This drawing has been developed as a constraints drawing to aid the design team in the layout of the proposed development and the tag numbers referred to in the condition tree report have been shown on this drawing along with their crown spreads and their retention category colour coded as recommended by BS 5837 2012. The constraint (Minimum Root Protection Area) for each tree has been shown with an 'Orange Circle' and all proposed development should be planned to be positioned outside those trees proposed for retention allowing for additional space for construction activities.

The Root Protection Area (RPA) is the minimum area around individual trees to be protected from disturbance during construction works; RPA is usually expressed as a radius in metres measured from the tree stem. Any deviation in the RPA from the original circular plot takes account of the following factors whilst still providing adequate protection for the root system:

a) The morphology and disposition of the roots, when influenced by past or existing site conditions (e.g. the presence of roads, structures, drainage ditches and underground apparatus);

b) Topography and drainage;

c) The soil type and structure;

d) The likely tolerance of the tree to root disturbance or damage, based on factors such as species, age, condition and past management.

4.0 Findings

4.1 The site area is irregularly square in shape and is bordered by private houses to the north, by the railway line to its east and by the grounds of 'Shanganagh Park' to its south and west. Metal fencing makes up the boundaries on the north and east sides and the tree belts make up the boundaries on the south and west sides. There is a large open grass area in the middle of the site with public footpaths around its perimeter with tree belts and hedges outside of these paths. This area has also been rejuvenated with tree planting over the last few years.

4.2 The following gives a brief summary of the vegetation within the site area.

Tree Belt No.1 extends east to west along the northern boundary and it is a prominent group of trees with a good mix of young to early- mature trees with a

diverse mix of species such as Ash, Poplar, Field Maple, Elm, Hazel and Larch, to name but a few.

Tree Group No.1 is located at the western end of 'Tree Belt No.1' and they are a prominent group of trees within this area. It is an early -mature group of trees consisting of Ash, Sycamore and Willow.

Tree Group No.2 and Tree Group No.3 are growing in the north-east corner of the site area on either side of the pedestrian footpath/ bridge that extends over the railway line. They are semi-mature trees with good potential for the long-term tree cover in this area and they contain mixed species such as Ash, Alder and Larch.

Tree Nos.0301-0309 are located to the south of the above tree belts and groups and consist of a mix of tree species generally of a semi-mature to early-mature age class establishing well with some having the potential to provide good quality tree cover for the future.

Hedge No.1 extends north to south along the eastern boundary with the railway line and it is a broad scrubby hedge consisting predominantly of Bramble and Dogrose with some clumps of Hawthorn, Holly and Elder in places. Within Hedge No.1 is **Tree Group No.4** and **Tree Nos.0311 & 0321** all Ash of a semi-mature to early-mature age class and some, in particular Tree Group No.4 are of prominence within this hedge. This hedge and the trees within have value as screening in this area and act as a buffer between 'Shanganagh Park' and the railway line to the east.

Tree Nos.0312-0320, 0322 & 0323 are located west of 'Hedge No.1' and consists of a mix of tree species planted either side of the perimeter path. These are of a young age class having been planted in recent years and most of them are establishing well with good potential to form part of the long-term tree cover.

Woodland Block No.1 is located in the south-west corner of the site area and it is a large prominent group of mixed species of varying age-classes. The most predominant species is Ash and Sycamore with a lot of Field Maple in the lower canopy along with seedling trees developing throughout the undergrowth. Pedestrian footpaths break up this woodland block into sub-compartments and the crowns of these trees overhang these paths. On either side of the pedestrian path on the north side of this woodland block is **Tree Group No.5** which consists of a group of young mixed Pine trees with good potential for the long-term tree cover in this area and they add to the species diversification of 'Woodland Block No.1'.

Tree Belt No.2 extends east to west across the south to south-eastern boundary and the crowns of these trees overhang the public footpaths in this area. It consists of mixed species of predominantly early-mature trees and as a tree belt; they are of prominence within the treescape of the area. It is comprised of mainly Ash with some Beech and Horse Chestnut in places.

Tree Nos. 1324 – 1337 are located on the northern side of the public footpath out from 'Tree Belt No.2' and consists of a mix of tree species. These are of a young to semi- mature age class having been planted in recent years and most of them are establishing well with potential to form part of the long-term tree cover.

Tree Belt No.3 is located north of 'Tree Belt No.2' and it protrudes out into the open grass area. It is a prominent tree belt in this area consisting of mixed species such

as Ash and Sycamore throughout the upper-canopy and Field-Maple and Rowan within the lower canopy. This tree group is made up of mainly early-mature trees.

Tree Belt No.4 extends north to south along the western boundary of this site area and it is a prominent tree belt. This tree belt consists of mostly early-mature trees with self-seeded trees, such as Sycamore developing throughout the lower canopy. It is comprised mainly of Ash and Sycamore trees with some Poplar towering above the rest of the upper-canopy at the southern end. Hazel and Alder can be found within the lower canopy, and their crowns overhang the public footpath at the southern end of this tree belt.

Tree Nos.1338-1341 are located on the eastern side of the public pathway out from the northern end of 'Tree Belt No.4' and consists of a mix of tree species. These are of a young age class having been planted in recent years and most are establishing well with good potential to form part of the long-term tree cover.

4.3 Within the site area, 41No. Trees have been tagged individually with one Woodland Block, five Tree Groups, four Tree Belts and one Hedge numbered numerically.

The following table gives a breakdown of the category grading allocation as per the cascade chart in BS5837 2012:

Category Grade	No. of trees
Category U 0 Trees	**Tree Nos.** No Trees
Category A 1 Tree + 3 Tree Belts + 1 Tree Group + 1 Woodland Block	**Tree Nos.** 1304 **Tree Belt Nos.** 1,2 & 4 **Tree Group No.** 1 **Woodland Block No.** 1
Category B 8 Trees + 1 Tree Belt + 3 Tree Groups + 1 Hedge	**Tree Nos.** 1303, 1306, 1307, 1308, 1309, 1310, 1311 & 1321 **Tree Belt No.** 3 **Tree Group Nos.** 2, 3 & 4 **Hedge No.**1
Category C 32 Trees + 1 Tree Group	**Tree Nos.** 1301, 1302, 1305, 1312, 1313, 1314, 1315, 1316, 1317, 1318, 1319, 1320, 1322, 1323, 1324, 1325, 1326, 1327, 1328, 1329, 1330, 1331, 1332, 1333, 1334, 1335, 1336, 1337, 1338, 1339, 1340 & 1341 **Tree Group No.** 5
Total	**41 Trees + 4 Tree Belts + 5 Tree Groups + 1 Woodland Block + 1 Hedge**

5.0.0 Arboricultural Implication Study

5.1.0 Introduction

5.1.1 It is proposed to develop this site area within 'Shanganagh Park' for a new sporting facility for a number of sporting disciplines and it will be necessary to allow for infrastructural works.

5.1.2 This section of our document is designed to assess the impact of the proposed development layout on the tree vegetation within this site area and to look at the necessary measures that will need to be undertaken to help retain the tree vegetation shown for retention free from adverse impacts for the duration of the construction period.

5.1.3 On drawing No.SGSF002, I have identified the tree vegetation to be removed to facilitate this proposed development and management with 'Red Hatched' crown spreads and those to be retained to form part of the long-term tree cover on these grounds with a 'Green Hatched' crown spread.

The protective fencing has been shown on this drawing using 'Orange Hatching'. These tree protection fences and other tree protection measures will need to be put in place at the start of the works and be maintained in place until all works are completed. This fencing is to protect the root zones and crown spreads of the trees and to ensure their successful integration into the completed development of these grounds.

5.1.4 The comments made within this impact assessment study are based on my understanding of the proposed development and what is required to allow for its construction.

5.2.0 Design Rational

5.2.1 The current site layout has been finalized and modified based on the information provided in the initial condition tree assessment of the site area and the creation of the tree constraints plan (DWG. No.SGSF001) and a number of design team consultations which has resulted in changes being made in the layout to ensure that any impact on the tree vegetation has been kept to a minimum.

5.2.2 The objective of the proposed development layout was such as to try and retain as much of the important tree lines, groups and belts of trees as possible particularly around the perimeter of this site area and to incorporate these into the completed development.

5.3.0 Tree Loss

5.3.1 To accommodate the proposed development, it will be necessary to remove the following vegetation:

Category	Tree Identification Number
Category A	C.64m2 of Tree Belt No.1.
Category B	**Tree Nos.**1303, 1306, 1307, 1310 & 0311 plus 5No. Trees from Tree Group No.3, c.700m^2 of Tree Belt No.3, plus c.30m x 16 area located at the northern end of Hedge No.1.
Category C	**Tree Nos.**1301, 1302, 1305, 1312, 1313, 1314, 1323, 1338, 1339, 1340 & 1341.

The young individual trees within this site area that have been planted in the last few years that need to be removed to facilitate the proposed works could be lifted during the dormant season (Nov-Mach) and be replanted elsewhere within the park.

Once the trees have been removed from the tree groups and woodland belts, those new outer edge trees will need to be reviewed for wind exposure and some of these may also need to be removed while others could be retained with pruning in order to create a new outer canopy edge that can tolerate wind exposure and will not be vulnerable to wind damage.

As part of the general management of the tree belts, groups and woodland blocks, these need to be checked in order to remove/make safe large size dead/unstable growth that would pose a risk to paths and boundaries. In some areas, they would benefit from light selective thinning to reduce the density of the groups to allow the better quality trees space to grow and develop and also to create space to allow for new tree planting to help to improve the diversity of tree species and to future proof the canopy cover for the future against impacts from diseases such as 'Ash Dieback' *(Hymenoscyphus fraxineus).* This selective thinning would see dead, diseased and poorly structured trees being removed in favor of the trees being retained and these works would be seen as part of good woodland management practice, irrespective of the development of this area.

The widening of the existing path through 'Woodland Block No.1' may also require the removal of some individual trees in order to achieve the required path width and this will need to be reviewed once the path is marked out on site. Any tree/s that needs to be removed as part of this work can form part of the selective thinning regime for this woodland block. To minimize impact from the installation of the new path, this will need to be installed using a 'No-Dig' methodology where the new path surface is brought over the existing ground levels leaving the soil and root material underneath intact and not damaged. See 'Section 6.8.0' of this report for general guidance on the installation of such path surface incorporating a product such as 'CellWeb' for structural support.

5.3.2 **In summary**, 16 individually tagged trees plus five trees from one Tree Group, 764m^2 of tree belts/wooded areas and c.30m x 16m length of hedging are proposed for removal to facilitate the proposed development of this area for a new sporting facility. See 'Appendix 2' of this report for full details on this vegetation.

The tree vegetation for removal is made up of the following category grades:

- **Category 'A'** – c.64m^2 of a linear tree belt.
- **Category 'B'** - 5No. trees plus 5No. trees from a tree group, 700m^2 of tree belts, plus c.30m x 16m section of hedging
- **Category 'C'** – 11No. trees

5.3.3 In the design layout, great efforts have been made to retain as much of the perimeter tree vegetation as possible to ensure that this area continues to be screened off from the surrounding residential areas and the remaining parts of the park and to give this area a sense of enclosure.

The loss of the above tree vegetation is scattered throughout a large site area and in the overall context of the tree cover in this area, the extent of tree cover being lost to facilitate the proposed development has minimal impact on the treescape of the greater area.

The loss of the above listed tree vegetation is being mitigated against with the planting of trees, shrub and hedging as part of the landscaping of the completed development which will complement the development and its incorporation into the surrounding area. It will also help to provide good quality and sustainable long-term tree cover, and as this establishes and grows in size, it will be continuously mitigating any negative impacts created with the loss of the existing tree vegetation to facilitate the proposed development. See landscape architects drawings and schedules for detail.

The planting strategy key factors are to:

• Create a sense of identity using trees, shrub and hedge planting.

• Create a robust landscape that performs all year round and is suitable for the current proposed use of this site area.

• Use vegetation to screen and enhance views.

• Use a more diverse mix of plant species that will include good pollinators.

• Plant robust species that tolerate drought and site-specific micro-climates

• Plant species that are maintenance friendly

5.4.0 Tree Retention

5.4.1 For the tree vegetation proposed for retention, all necessary mitigation measures will need to be put in place in order to prevent or reduce impact to its very minimum. Mitigation measures used will need to include the erection of protective fencing at the very start of the works, ground protection installation within root zones where fencing cannot be erected to enclose the entire root zones, monitoring of the site works by the project Arboriculturist throughout the construction process and the use of tree friendly techniques and products for the construction process.

5.4.2 **Main items for consideration during the proposed construction process:**

Item	Comments
Tree Pruning	As part of the initiating works, the crowns of some of the trees are to be pruned to remove dead/unstable growth, as well as the pruning of individual limbs/branches or entire crowns to reduce size due to structural weaknesses or to improve their juxtaposition within the built environment. A preliminary list of these works is given within the condition tree assessment in 'Appendix 2' of this report and these are to be reviewed on site prior to being carried out. All tree felling and pruning works should be carried out by qualified and experienced tree surgeons *before* any construction work commences; all tree work should be in accordance with *BS3998 (2010) Tree Work – Recommendations.* For the stumps of trees that need to be removed, particularly those which are located within the root zone of trees being retained, these are to be ground out using a mechanical stump grinder taking care not to cause root damage to the trees being retained.
Tree Management	Within the proposed development, as is the current situation, trees will be positioned within close proximity to usable surfaces such as roads, footpaths and neighbouring properties. As a result, it will be necessary to continue to review the condition of these trees on a regular basis and to carry out any necessary remedial tree surgery works required to promote health and safety. The woodland blocks/belts are in need of some general management in the form of removing dead/unstable growth, Ivy management and the selective thinning of the trees in places to allow the better quality trees which will form the final tree canopy cover the space to grow and develop. In the process, dead or poorly structured trees will be selected for removal in favour of the better quality trees. New tree planting should also form part of these management works to rejuvenate and future proof the tree canopy against disease. Any new tree planting carried out will require maintenance to encourage good growth habits and to alleviate any safety concerns

Item	Comments
	that they may present as they grow in size.
Tree Protection	Trees being retained will need to be protected from unnecessary damage during the construction process by effective construction-proof barriers that will define the limits for machinery drivers and other construction staff. Ground protected by the fencing will be known as the 'Work Exclusion Zone' and sturdy protective fencing will need to be erected along the points identified in the Tree Protection Plan (Dwg No.SGSF002) **prior** to any soil disturbance and excavation work starting on site. This is essential to prevent any root or branch damage to the retained trees. The type of tree protection fencing for each area is to be agreed with the project Arboriculturist prior to its erection and it needs to be suitable for the types of works that will occur within its vicinity. Where it is expected that there will be a high concentration of construction works, the fencing will need to be 2.3m high and constructed in accordance with figure 2 of BS 5837 2012 **(see type 1 fencing detail within 'Appendix 1' and on our Tree Protection Plan (DWG No.SGSF002)** using vertical and horizontal scaffold bars well braced together with the verticals spaced out at a maximum of 3m centres, and onto this weld mesh panels are to be securely fixed with wire or scaffold clamps. Where it is expected that there will be a lesser intensity of works such as along the open spaces, a rail or wire mesh fence structure 1.5m high secured well to the ground will be sufficient, **(see type 2 fencing detail within 'Appendix 1' and on our Tree Protection Plan (DWG No.SGSF002).** All weather notices should be erected on the fences with words such as: "Tree Protection Fence — Keep Out". When the fencing has been erected, the construction work can commence. The fencing should be inspected on a regular basis during the duration of the construction process and shall remain in place until heavy building and landscaping work have finished and its removal is authorised by the project Arboriculturist.
Construction	It will be important that good housekeeping is in place at all times so that the site does not become congested. All construction works are to be well planned in advance so as not to put pressure on the protective zone around the trees. All works are to occur from outside the protective zones. Where work space along by the protective fence lines is limited/ restricted, alternative work methods will need to be looked at so as to keep the work areas to their minimum in order to reduce the extent of soil and root damage occurring to the trees proposed for retention. See section 6.2.3 of BS5837 2012 for detail on working within the RPA and ground protection. For light access works within

Item	Comments
	the work exclusion zone, the installation of suitable ground protection in the form of scaffold boards, woodchip mulch or specialist ground protection mats/plates may be acceptable. These are to be reviewed with the project Arboriculturist and installed to their recommendations. See detail in 'Appendix 1' of this report for sample of ground protection for light weight construction works taken from BS 5837 2012. Care should be taken when planning site operations to ensure that wide or tall loads or plant machinery with booms, jibs and counterweights can operate without coming into contact with retained trees. Such contact can result in serious damage to them and might make their safe retention impossible. Materials, which can contaminate the soil, e.g. concrete mixings, diesel oil and vehicle washings, should not be discharged within 10m of a tree stem. Fires should not be lit in a position where their flames can extend to within 5 m of foliage, branches or trunk. This will depend on the size of the fire and the wind direction. Notice boards, wires and such like should not be attached to any trees. Site offices, materials storage and contractor parking should all be outside the work exclusion zone.
Services	Services entering and leaving the site area are routed so they are located outside the root protection zones of the trees to be retained. This has been discussed with the design team in order to achieve this. Prior to the installation of any services routed near trees, these are to be marked out on site for review by the project Arboriculturist and a detailed method statement is to be prepared by the installation contractor in conjunction with the project Arboriculturist on how these services are to be installed while providing protection to the surrounding tree vegetation shown for retention. Any cabling for the lights along the paths where they come within the root zone of trees being retained will need to be installed in ducting within the buildup of these paths to ensure no soil or root damage is caused.
Boundary Treatments	The boundary treatments where required within the root zone of the tree vegetation being retained will need to be of a fence type structure where there will only be a need to dig small diameter holes for the uprights. These holes for the uprights are to be dug manually with no machinery allowed inside the root protection areas. Work zones within the root protection areas for these trees will need to be protected during the construction of the boundary fences by boarding as per Section 6.2.3 of BS 5837 2012. Where it is needed to install fences along existing hedges, it will be necessary to carry out some pruning of the lower vegetation to allow access. This is to be kept to a minimum and where

Item	Comments
	necessary, the hedges are to be augmented with new hedge planting to fill openings and to bulk up screening.
Landscaping	The existing ground levels within the RPA of the trees are to be retained and incorporated into the finished landscaped development. Where changes in levels occur, these are to be either graded into the finished levels starting outside the RPA or alternatively, retaining wall structures are to be used differentiating between the different levels. All soft and hard landscaping within the RPA of the trees to be retained are to be carried out manually and the soil levels are not to be lowered or raised resulting in root damage to the trees. All surfaces are to be porous to allow the free movement of air and moisture to the roots below. Recommendations of sections 8 of BS5837 2012 are to be adhered to during the landscaping within the RPA's of these trees. In a number of places, paths/surfaces will encroach into the root zone of the tree vegetation to be retained, in particular through woodland block No.1 where the path is to be widened out to c.3m and at the northern and eastern end of Tree Belt No.1 for the play area surface. The surfaces through these areas will need to be installed using a 'No-Dig' method bringing the surface over the existing ground levels to avoid causing damage to the soil and roots underneath. Where it is necessary to provide extra support for heavier loading, it will be important to use a cellular confinement system such as 'CellWeb' within the construction of these sections of paths/surfaces. See 'Section 6.8' of our report for detail on the installation of such surfaces within the root zone of trees.

5.5.0 Monitoring

5.5.1 Any construction works within close proximity to retained trees are advised to be undertaken in accordance with approved method statements prepared by the construction contractor under the direct supervision of a qualified consultant Arboriculturist. Therefore, during the construction works, a professionally qualified Arboriculturist is recommended to be retained by the principal contractor or site manager to monitor and advice on any works within the RPA of retained trees to ensure successful tree retention and planning compliance.

5.5.2 It is advised that tree protection fencing, any required special engineering and supervision works must be included in the main tender documents, including responsibility for the installation, cost and maintenance of tree protection measures throughout all construction phases.

5.5.3 Copies of the tree retention and protection plan (DWG No. SGSF002) a copy of BS 5837(2012) and NJUG 4 (2007) should all be kept available on site during the construction works and all works are to be in accordance with these documents.

5.5.4 On the completion of the construction works, all trees retained are to be reviewed by the project Arboriculturist and any necessary remedial tree surgery works required to promote the health of the trees and safety are to be implemented.

6.0 Arboricultural Method Statement/Tree Protection Strategy

6.1 The objective of this arboricultural method statement/tree protection strategy is to provide information for the main building contractor/site manager on how trees need to be protected during a construction project and so that they can prepare their own site specific detailed method statement for their works.

6.2 It is necessary for tree protective fencing to be erected and all other mitigation measures required to be put in place prior to the development works commencing on site and these are to enclose and protect the root zone of the tree vegetation proposed for retention. See drawing DWG No.SGSF002, for the position of the protective fencing and other mitigation measures.

6.3 The protection of the tree vegetation shown for retention is divided into three main sections starting with the preconstruction stage right through to post construction and the reassessment of the retained trees.

Stage 1:

6.4.0 Pre-Construction Works

6.4.1 Prior to the main construction works commencing on site the following needs to be planned:

1. The developer or main contractor needs to appoint an Arboriculturist for the duration of the project. The Arboriculturist is to make regular site visits to ensure that the tree protection measures are in place and adhered to.
2. The main contractors and all sub-contractors work force are to be briefed on the tree protection and ensure that these measures are to be kept in place throughout the construction period.
3. All personnel are to adhere to the recommendations of the appointed Arboriculturist.
4. Any issues in relation to the trees shown for retention must be discussed with the appointed project Arboriculturist and the necessary mitigation measures put in place without delay and prior to the works being carried out.

6.5.0 Site Meeting

6.5.1 Prior to any works commencing on site, it is necessary that a meeting be arranged between the project manager, site foremen, the project Arboriculturist and local authority to identify and finalize the trees for removal and the line of the protective fencing.

6.6.0 Tree Works

6.6.1 The developer or the main contractor is to appoint a tree surgery company competent of carrying out the remedial tree surgery works and tree felling that are required on this site. The tree surgery contractor is to produce a method statement detailing how he plans to undertake the works and informing the site foreman of the process so the necessary steps can be taken to ensure the works are carried out safely and efficiently. The works are to be carried out by appropriately trained personnel taking account of the recommendations of BS3998 2010.

6.6.2 **Tree Removal -** Trees for removal are to be identified by the project Arboriculturist and the method of removing the stumps is to be carried out to the recommendations of the project Arboriculturist. The trees in the way of the works are to be removed in such a manner not to cause damage to those being retained. Where necessary to avoid damage to the trees to be retained, these are to be removed in sections by a tree surgeon (Arborist). Where necessary, the roots and stumps are to be dug out with a digger except where the stumps are located within the RPA (root protection area) of trees being retained. In this instance, the stumps are to be ground out with a mechanical stump grinder taking care not to cause damage to the roots of trees being retained.

6.6.3 **Remedial Tree Surgery Works -** The necessary remedial tree surgery works required to promote health and safety of the trees to be retained is to be carried out.

A schedule of these works is to be produced by the project Arboriculturist taking into consideration the trees within their new built environment and prior to these works being carried out; they are to be agreed with the local authority.

6.7.0 Erection of the protective fencing

6.7.1 Once the trees have been removed, the line of the protective fencing that is required around the trees being retained **must be** erected as per DWG. No. SGSF002.

6.7.2 Where it is expected that there will be a high concentration of construction works, the fencing will need to be 2.3m high and constructed in accordance with figure 2 of BS 5837 2012 **(see type 1fencing detail within 'Appendix 1')** using vertical and horizontal scaffold bars well braced together with the verticals spaced out at a maximum of 3m centres, and onto this weld mesh panels are to be securely fixed with wire or scaffold clamps.

6.7.3 Where it is expected that there will be a lesser intensity of works, a rail or wire mesh fence structure 1.5m high secured well to the ground will be sufficient, (**see type 2 fencing detail within 'Appendix 1').**

Signs need to be attached to these fences warning people to 'keep out'. See detail within drawing No.SGSF002 & Appendix 1.

6.7.4 Once the protective fence line is erected, then the main construction works can commence on site.

6.7.5 **Storage of Material, Work Yards and staff car parking -** These areas must be identified on the work drawings prior to the construction works starting. These must be positioned outside the root protection areas around the trees being retained.

6.8.0 Ground Protection Installation for Pathways surfaces and Working Areas within the root zone of trees.

6.8.1 The ground protection is to take the form of a product such as 'Cell Web' and this will need to be installed in the following manner under the guidance of the project Arboriculturist and engineer:

Step 1 - The existing ground cover vegetation (e.g. grass/weeds) if necessary is to be killed off using an appropriate herbicide (see Pesticides Handbook [15]). Herbicides that can leach through the soil, e.g. products containing sodium chlorate, are not be used.

The soil surface is not to be excavated to establish a sub base for the finished surfaces.

Loose organic matter, woody vegetation and/or turf are to be removed carefully using hand tools.

If there is a delay in installing the surface following clearing, the soil surface once prepared is to be covered immediately either with hessian sacking or plastic to prevent the surface drying out until the new surface is installed.

Step 2 – Place the geotextile separation filtration layer over the prepared ground surface. Use a Fibretex F4M non-woven geotextile with dry joints overlapping by 300mm.

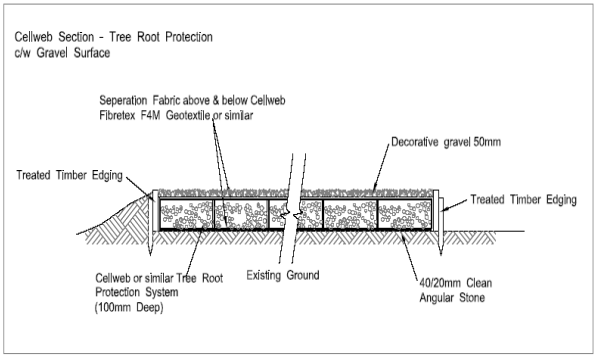
Step 3 – Place constraints along the edges to contain the fill material. These can be of such material as treated timber or railway sleepers.

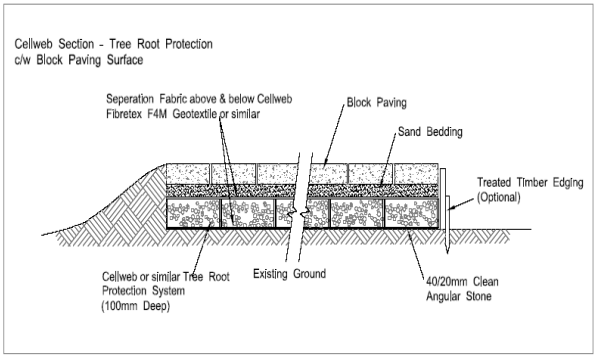
Step 4 – Place the required cellular confinement system (Cell Web150-200mm) over the geotextile and pin/anchor the cell walls open for infilling.

Step 5 – Place the infill material of a 20-40mm clean sharp stone in the open cells of the Cell Web pushing the infill ahead of you so that the machinery is driving on the filled Cell Web. Compact the infill material to the desired density.

Step 6 – Slightly surcharge the Cell Web product with 25mm of 40/20mm clean angular stone.

Pictures show the Cell Web being installed on the ground.
The below diagram shows how the Cellular confinement system should be installed.





Stage 2:

6.9.0 The Construction Works Stage

6.9.1 **Protective fencing -** During the course of the works, special attention must be paid to ensure that these tree protection measures are kept in place, in good order and remain upright, rigid and complete at all times. They must be checked daily by the main contractor/foreman and any damage noted must be fixed immediately.

If works need to take place inside the protective fence lines, then the project Arboriculturist must be informed in advance of the works taking place and the mitigation measures required to reduce impact on the tree vegetation agreed. These mitigation measures will include the supervisions of these works by the project Arboriculturist.

The protective fencing and all other protection measures are to remain in place throughout the construction works phase and must only be removed when all the works are complete and at this stage incorporated into the finished landscape.

6.9.2 **Excavations -** The excavation works are only to commence once the protective fence line and all other protection measures are in place.

The excavations in the vicinity of the tree vegetation being retained will need to be viewed on site once marked out with the project manager, site foreman and the project Arboriculturist in advance of excavation to determine the extent of the impact and the work space required to allow for the construction works to proceed and to assess what additional mitigation measures will be required to protect those trees to be retained. In certain areas, it may be necessary to use an alternative method of excavating to prevent encroachment into the RPA of the trees to be retained and this may include such methods as retaining walls or similar.

No roots are to be severed by the construction works without prior approval by the project Arboriculturist. Where roots are encountered, the project Arboriculturist is to assess these prior to cutting and these are to be pruned back to appropriate pruning points beyond the excavation line. Where roots cannot be cut; alternative methods of construction will need to be considered. The excavated face is then to be covered with soil or with Hessian sacking to prevent further drying out and the death of root material. Where the Hessian sacking is used, it will be necessary to keep this moist especially during dry periods.

6.9.3 **Working within the RPA** *(Root Protection Area)* – If it becomes necessary to carry out works within the RPA of a tree/trees, these must be discussed and agreed with the project Arboriculturist. All works must be carried out manually. Root pruning is to be undertaken by an Arboriculturist using proprietary cutting tools such as a secateurs or hand pruning saw.

The ground within the RPA of the trees must be protected from damage as per the recommendations of **section 6.2.3** of BS5837 2012. See detail within appendix 1 on ground protection using boarding for pedestrian loading.

6.9.4 **Finished ground levels/Landscaping -** The existing ground levels within the RPA of trees must be retained and incorporated into the finished landscaped development. Where changes in levels occur, these are to be either graded into the finished levels starting outside the RPA or alternatively, retaining wall structures are to be used differentiating between the different levels.

All soft and hard landscaping within the RPA of the trees to be retained must be carried out manually and the soil levels must not be lowered or raised resulting in root damage to the trees. All surfaces are to be porous to allow the free movement of air and moisture to the roots below. Recommendations of sections 8 of BS5837 2012 must be adhered to during the landscaping within the RPA of the trees being retained.

6.10.0 Other items

6.10.1 The following is a list of additional activities ***that are not allowed*** within the RPA or within the vicinity of the trees being retained.

1 - Storage of equipment, fuel, construction material, or the stockpiling of soil or rubble.
2 - Burning rubbish
3 -The washing of machinery
4 - Attaching notice boards, cables or other services to any part of the tree.
5 - Using neighbouring trees as anchor points.
6 - Care is required when using machinery such as Tele-porters, cranes or other equipment close to trees so as not to damage the crown or any other parts.

Stage 3:

6.11.0 Post Construction Works

6.11.1 This project is not to be considered complete until all retained trees have been re-examined by the project Arboriculturist and the remedial works necessary to ensure the health of the trees and the immediate safety of the end user of this development are implemented.

This report has been produced as part of a planning application for this site area and is for the sole use of the above named client and refers to only the tree vegetation identified within. Its use by any other person(s) in attempting to apply its contents for any other purpose renders the report invalid for that purpose.

Signed Felim Sheridan Date 09/01/2023

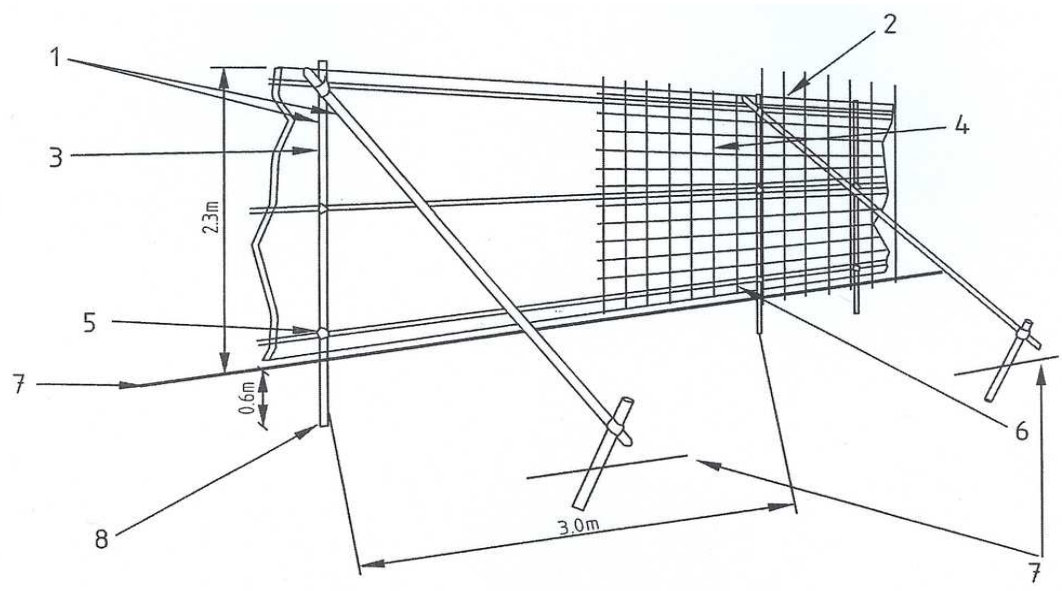
Felim Sheridan
F. Arbor. A, RFS Dip, Nat. Dip & NCH in Arboriculture

Felim Sheridan's qualifications:
Fellow of the Arboricultural Association (F. Arbor. A), Professional diploma Arboriculture (RFS), National diploma Arboriculture (ND) and National certificate Horticulture (NCH).

Appendix 1

Sample of Temporary Tree Protection Fencing Detail and Ground Protection.

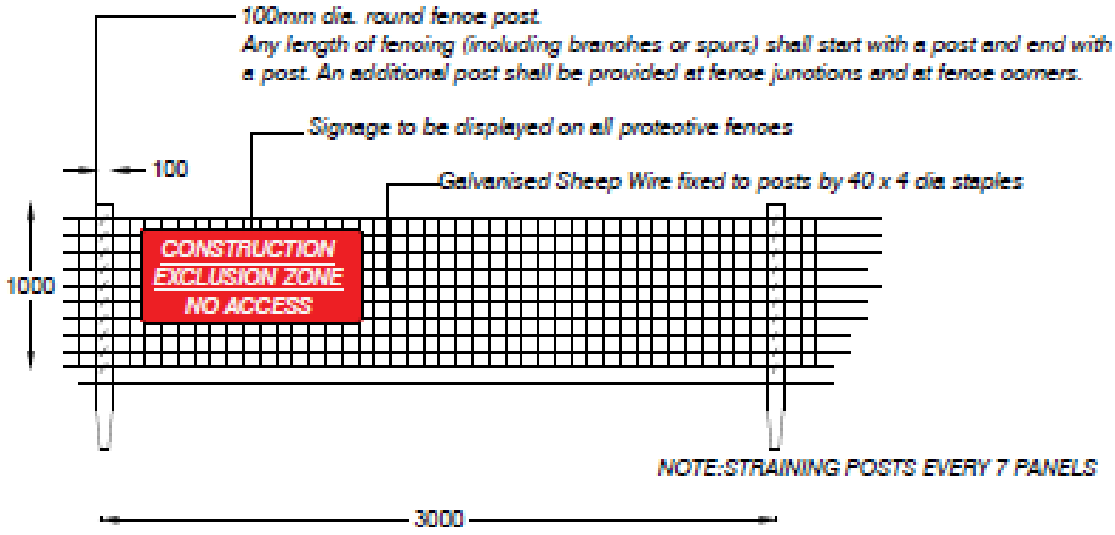
Type 1 Protective Fence –



1 Standard scaffold poles
2 Uprights to be driven into the ground
3 Panels secured to uprights with wire ties and, where necessary, standard scaffold clamps
4 Weldmesh wired to the uprights and horizontals
5 Standard clamps
6 Wire twisted and secured on inside face of fencing to avoid easy dismantling
7 Ground level
8 Approx. 0.6m driven into the ground

Figure 2. – Protective fencing for RPA

Fence Type 2 - Detail of Tree protection fencing for lower intensity work areas.



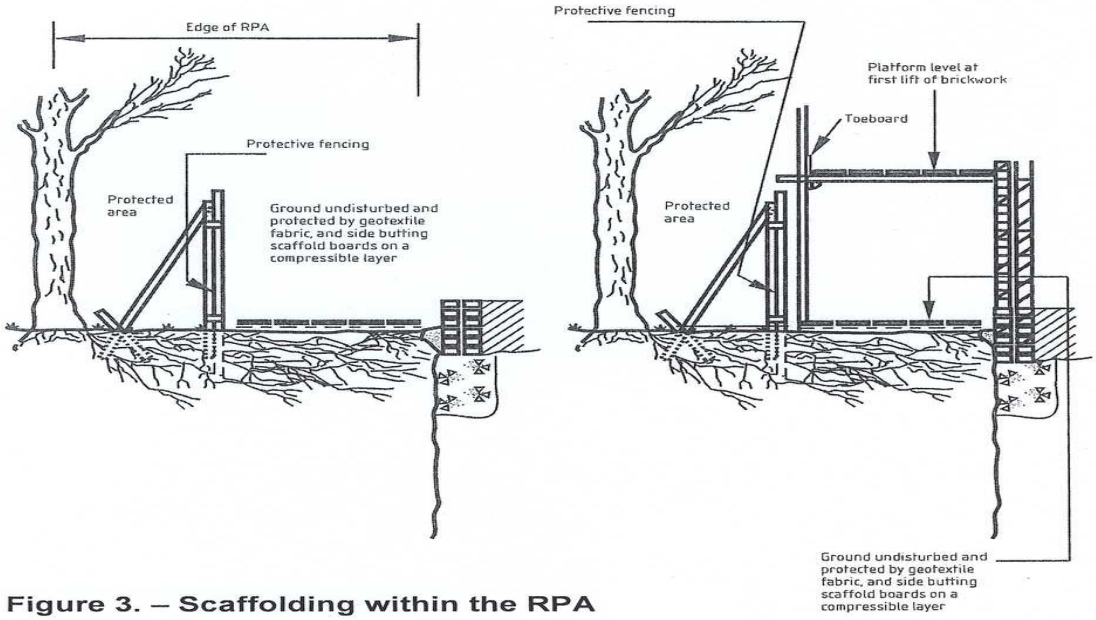


Figure 3. – Scaffolding within the RPA

Appendix 2

Condition Tree Assessment

A Condition Assessment of the Trees within the site area at 'Shanganagh Park', Shankill, Dublin 18.

Date: 9th January 2023

Survey Notes

All codes referred to in this report are approximate and serve as a general guide only.

Reference to Numbers: The trees have metal tags attached and these correspond with the numbers in this report.

Reference to age class is as follows:

Young: A tree, which has been planted in the last 10 years.

Semi Mature A tree that is less than 1/3 the expected height of the species in question.

Early Mature: A tree, which is between a 1/3 and 2/3's the expected height of the species in question.

Mature: A tree that has reached the expected height of the species in question, but still increasing in size.

Over Mature: A tree at the end of its life cycle and the crown is starting to break up and decrease in size.

Reference to Physiological, Structural Condition and other comments:

Physiological Condition

Good: A tree with no major defects, but possibly including some small defects.

Fair: A tree with some minor defects such as bark Wounds, isolated decay pockets or structure affected due to overcrowding.

Poor: A tree with more serious defects such as extensive deadwood, decay or effective to the point of being dangerous.

Structural condition and other comments –
This records noted visual defects and other information about the trees health and structure.

Estimated Remaining Contribution in years

This is based on an Arboricultural assessment of the tree and is estimated based of the findings noted at time. Trees still need to be reviewed on a regular basis, preferably annually.

Less than (<) 10 years remaining contribution
10 + years remaining contribution
20 + years remaining contribution
40 + years remaining contribution.

Retention Categories

The purpose of the tree categorization method is to identify the quality and value of the existing tree stock, allowing informed decisions to be made concerning which trees should be removed or retained should development occur.

It is carried out in accordance with section 4.5 (Tree Categorization Method) of BS 5837 2012.

Summary

Main categories
Category U – Those trees in such a condition that any existing value would be lost within 10Years. Most of these will be recommended for removal for reasons of sound Arboricultural practice.
Category A - Trees of high quality/value with a minimum of 40 years life expectancy.
Category B – Trees of moderate quality/value with a minimum of 20 year life expectancy.
Category C – Trees of low quality/value with a minimum of 10 years life expectancy

Sub categories

1 – Mainly Arboricultural Values
2 – Mainly Landscape values
3- Mainly Cultural and conservation value

Note: Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation.

If a layout design places Category U trees in an inaccessible location such that concerns over public safety are reduced to an acceptable level, it may be preferable or possible to defer the recommendation to fell.

The terms 'Group, woodland or tree line' is intended to identify trees that form cohesive Arboricultural features either aerodynamically (e.g. trees that provide companion shelter), visually (e.g. avenues or screens) or culturally including for biodiversity (e.g. parkland or wood pasture), in respect to each of the three subcategories.

Reference to Crown spread, Height and Trunk Diameter:
This gives a guide to the area taken up by the tree.
Trunk diameter is the diameter of the main trunk taken at a height of 1.5m and is recorded in millimeters (mm).
Height records the overall height of the tree and is given in meters (m).
Crown Spread records the extent of the branches normally in a north, south, east and west direction from the base of the tree and is given in meters (m).
Clear crown height records the distance between the ground and the first branch form the base of the tree and is given in meters (m).

Root Protection Area (RPA)

The Root Protection Area **(**RPA) is the minimum area around individual trees to be protected from disturbance during construction works; RPA is usually expressed as a radius in meters measured from the tree stem.

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. The calculated RPA for each tree should be capped to 707 m2.

a) For trees with two to five stems, the combined stem diameter should be calculated as follows:

√ ((stem diameter 1)2 + (stem diameter 2)2 ... + (stem diameter 5)2)

b) For trees with more than five stems (not illustrated in Annex C), the combined stem diameter should be calculated as follows:

√ ((mean stem diameter) 2 × number of stems)

The RPA for each tree is plotted on the Tree Constraints Plan (No.ASC001); any deviation in the RPA from the original circular plot takes account of the following factors whilst still providing adequate protection for the root system:

a) The morphology and disposition of the roots, when influenced by past or existing site conditions (e.g. the presence of roads, structures and underground apparatus);

b) Topography and drainage;

c) The soil type and structure;

d) The likely tolerance of the tree to root disturbance or damage, based on factors such as species, age, condition and past management.

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
		A Condition Assessment of the trees within the site area for the new sports facilities at 'Shanganagh Park', Shankill, Dublin 18. **The assessment starts in the north-west corner of the site area with the tree belt to the east of the entrance to 'St Anne's Park' and works in a clock-wise direction.**												
Tree Belt No.1	**Ash** *Fraxinus excelsior* **Sycamore** *Acer pseudoplatanus* **Elm** *Ulmus sp.* **Beech** *Fagus sylvatica* **Cherry** *Prunus avium* **Poplar** *Populus sp.* **Norway Maple** *Acer platanoides* **Field Maple** *Acer campestre* **Hazel** *Corylus avellana* **Horse Chestnut** *Aesculus hippocastanum* **Hawthorn** *Crataegus*	A 12	A 300	A 4	A 4	A 4	A 4	A 3	Early Mature	Fair	Fair This tree belt extends east to west along the northern boundary of the park with the open space within 'St Anne's Park'. There is a metal fence dividing this tree belt from 'St Anne's Park' to the north and to its south there is a narrow linear strip of grass c.5m in width running along its length with a public footpath outside of this. The upper canopy of this tree belt is predominantly made up of Ash, Sycamore, Elm and Cherry with some Poplar, Beech, and Horse Chestnut in places. The lower canopy is comprised of Field Maple, Hawthorn and Hazel and Ivy is beginning to extend into the crowns of some of the trees. It has an undergrowth of Bramble and self-seeded trees such as Sycamore. A lot of these trees have been drawn up for the light due to overcrowding/ competition and this is affecting their individual structure as a result. There is some naturally occurring deadwood within the crowns of these trees and some trees within have failed due to suppression from the larger neighbouring trees. The trees that make up the outer canopy formation on the north and south side have a crown overhang into the green area in 'St Anne's Park' and the public footpath in Shanganagh Park,	Remove any large size dead/ unstable growth that endangers the public footpath in Shanganagh Park and the green space in 'St Anne's Park'. Cut Ivy at ground level where heavy and causing suppression of trees. This tree belt would benefit from ongoing, light, selective thinning to reduce density and allow the better quality trees space to develop. It would also benefit from infill planting with additional tree species to help further diversify tree species and to future proof the tree belt, and in particular to help compensate for the loss of Ash trees due to 'Ash	40+	A2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
	monogyna **Bramble** *Rubus fruticosus*										respectively. They have value as screening in this area. These trees are growing as one coherent group with a combined group canopy formation and they are dependent on each other for support/ shelter. Their category grade is based on the merits of the tree belts as a whole and not as individual trees.	Dieback' *(Hymenoscyphus fraxineus)* disease.		
		Tree Belt No.1  												
		The following trees are located south of the public path out from Tree Belt No.1. They have been planted at wide spacing in recent years and are growing on an open grass area running parallel with the public path. They are beginning to establish and have sufficient space to develop. They will provide good long-term tree cover of interest in this area.										They would benefit from formative pruning to encourage good form/ structure. These trees are of a size where they could be lifted and planted elsewhere.	40+	C2
1301	**Tulip Tree** *Liriodendron*	5	100	2	1	1	1	2	Young	Fair/ Good	Fair There is a rope attached to a branch in its crown	Maintain a larger weed-free area around its base	40+	C1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
	tulipifera										and it has suffered some minor branch breakage in its crown. Its lower branches have been removed in order to raise up its crown.	with mulch. Remove rope attached to branch in its crown.		
1302	**Elm** *Ulmus glabra*	6	140	2	2	3	1	2	Young	Fair	Fair There is a split branch in the crown and this may develop into a structural weakness as the tree grows in size. There is a bark wound on the main stem in its lower crown and its lower branches have been removed in order to raise up its crown. It may become infected by 'Dutch Elm Disease'.	Remove split branch and any dead/ unstable growth. Maintain a larger weed-free area around its base with mulch. Monitor for infection by 'Dutch Elm Disease'.	20+	C1
1303	**Dawn Redwood** *Metasequoia glyptostroboides 'Fastigiata'*	5	100	1	1	1	1	0	Young	Fair/ Good	Fair/ Good It has a low branch formation down to ground level and it is establishing well.	Maintain a larger weed-free area around its base with mulch.	40+	B1
1304	**Wellingtonia** *Sequoiadendron giganteum*	7	280	2	2	2	2	0	Young	Fair/ Good	Fair/ Good It has a good conical habit with a low branch formation down to ground level.	It requires no work at present.	40+	A1
1305	**Ash** *Fraxinus excelsior*	4	100	1	1	1	1	2	Young	Fair/ Poor	Fair It leans from base and I suspect it has heaved at the root-plate in the past before it could properly establish. These rooting issues are reflected in its physiological condition with some naturally suppressed deadwood in its crown. Its lower branches have been removed in order to raise up its crown.	Maintain a larger weed-free area around its base with mulch. Monitor its condition annually.	20+	C1
		The following trees are located along the footpath up to the bridge over the railway line.												

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
														
1306	**Ash** *Fraxinus excelsior*	10	310	4	4	4	4	2	Early Mature	Fair/ Good	Fair It is growing in the triangular shaped grass area that divides the paths and its crown overhangs the public paths in this area. It is a single-stemmed tree that divides into two stems at a height of c.2m with an acute union formation between stems with included bark present and this may develop into a structural weakness as the tree grows in size. Soil alterations have occurred around its base and its lower branches have been removed in order to raise up its crown with good callous growth around these wounds.	Maintain a larger weed-free area around its base with mulch. It will require formative pruning to address structural issues.	40+	B1
1307	**Ash** *Fraxinus excelsior*	10	290	5	5	5	3	2	Early Mature	Fair/ Good	Fair It is growing in the triangular shaped grass area that divides the paths and its crown overhangs the public paths in this area. It is a single-stemmed tree that divides into three stems at a height of c.2m. Soil alterations have occurred around its base and its lower branches have been removed	Maintain a larger weed-free area around its base with mulch. Prune lower branches to improve clearance over paths for high-sided vehicles.	40+	B1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
											in order to raise up its crown with good callous growth around these wounds. It has suffered some branch breakage in its crown on its north side due to high-sided vehicles passing through this area.			
1308	**Ash** *Fraxinus excelsior*	8	200	4	3	3	4	2	Semi Mature	Fair	Fair It is growing on the north side of the path and its crown overhangs the public path to the south. It divides into two stems at a height of c.2m and there is a bark wound on its lower trunk where decay is developing into the underlying timber. Its lower branches have been removed in order to raise up its crown with good callous growth around these wounds. It has suffered some branch breakage in its crown on its south side due to high-sided vehicles passing through this area.	Maintain a larger weed-free area around its base with mulch. Prune lower branches to improve clearance over paths for high-sided vehicles.	40+	B1
1309	**Ash** *Fraxinus excelsior*	12	310	5	4	5	4	3	Early Mature	Fair/ Good	Fair It is growing on the north side of the path and its crown overhangs the public path to the south. It is a single-stemmed tree that divides into three stems at a height of c.3m. Its lower branches have been removed in order to raise up its crown with good callous growth around these wounds. It has suffered some branch breakage in its crown on its south side due to high-sided vehicles passing through this area.	Maintain a larger weed-free area around its base with mulch. Prune lower branches to improve clearance over paths for high-sided vehicles.	40+	B1
Tree Group No.1	**Ash** *Fraxinus excelsior* **Sycamore**	A 14	A 300 (4 stems)	A 4	A 4	A 4	A 4	A 3	Early Mature	Fair	Fair They are located in the north-east corner of the site area. They make up the outer-canopy formation of Tree Belt No.1 and they are a	Cut Ivy at ground level where heavy on trees.	40+	A2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
	Acer pseudoplatanus **Grey Willow** *Salix cinerea*										prominent group of trees in this area. Ivy cover is extending into their crowns and increasing their crown windsail. 			
Tree Group No.2	**Ash** *Fraxinus excelsior* **Sycamore** *Acer pseudoplatanus* **Beech** *fagus sylvatica* **Field Maple** *Acer campestre* **Alder** *Alnus glutinosa* **Poplar** *Populus sp.*	A 8	A 220	A 3	A 3	A 3	A 3	A 3	Semi Mature	Fair/ Good	Fair It consists of a group of trees located on the north side of the public footpath that leads to the pedestrian bridge over the railway line and it has colonized the embankment in this area. It is a prominent group of trees in this area and it has an upper-canopy of Ash, Sycamore, and Larch with some Alder, Poplar and Beech in places. The lower-canopy consists of Field Maple predominantly with some Dogwood in places and Bramble throughout the undergrowth. There is a narrow linear strip of grass dividing this tree group from the public footpath and their lower branches have been pruned to provide clearance in this	Remove any dead/ unstable growth that endangers the public footpath to the south. Continue current maintenance to maintain clearance with the public footpath to the south. They would benefit from light selective thinning to allow the better quality trees space to develop. It would also benefit from infill planting with additional	40+	B2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
	Larch *Larix decidua* **Dogwood** *Cornus alba* **Bramble** *Rubus fruticosus*										area. A lot of these trees have been drawn up for the light due to overcrowding/ competition and this has impacted on their structure. There is some naturally occurring deadwood within the crowns of some of these trees and they have suffered branch breakages also. These trees are growing as one coherent group with a combined group canopy formation and they depend on each other for support/ shelter. Their category grade is based on their merits as a tree group as a whole and not as individual trees.  Tree Group No.2 Tree Group No.3	tree species to help further diversify tree species and to future proof the tree belt, and in particular to help compensate for the loss of Ash trees due to 'Ash Dieback' *(Hymenoscyphus fraxineus)* disease.		
Tree Group No.3	**Ash** *Fraxinus excelsior* **Sycamore** *Acer pseudoplatanus* **Larch** *Larix decidua*	A 8	A 230	A 3	A 3	A 3	A 3	A 3	Semi Mature	Fair/ Good	Fair This tree group is growing on the opposite side of the path to Tree Group No.2 and it has also colonized the embankment in this area. It is a prominent group of trees and it has an upper canopy of Ash, Cherry and Sycamore with some Larch in places and Field Maple dominating the lower canopy with Bramble throughout the	Remove any dead/ unstable growth that endangers the public footpath to the north. Continue current maintenance to maintain clearance with the public footpath to the north.	40+	B2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
	Field Maple *Acer campestre* **Cherry** *Prunus avium* **Bramble** *Rubus fruticosus*										undergrowth. Their crowns overhang the public footpath to the north and they have received pruning to provide clearance in this area. Some of trees on the outer canopy have suffered storm damage. These trees are growing as one coherent group with a combined group canopy formation and they depend on each other for support/ shelter. Their category grade is based on their merits as a tree group as a whole and not as individual trees.	They would benefit from light selective thinning to allow the better quality trees space to develop. It would also benefit from infill planting with additional tree species to help further diversify tree species and to future proof the tree belt, and in particular to help compensate for the loss of Ash trees due to 'Ash Dieback' *(Hymenoscyphus fraxineus)* disease.		
1310	**Ash** *Fraxinus excelsior*	9	190/ 190	3	4	3	4	2	Semi Mature	Fair/ Good	Fair/ Good It is growing on the south side of the path west of Tree Group No.3. It is twin-stemmed from base and soil alterations have occurred around its base. Its lower branches have been removed in order to raise up its crown with good callous growth around these wounds and its crown overhangs the public path to the north.	Maintain a larger weed-free area around its base with mulch. Continue current maintenance to maintain clearance with the public footpath to the north.	40+	B1
Hedge No.1	**Bramble** *Rubus fruticosus* **Hawthorn** *Crataegus monogyna* **Holly** *Ilex aquifolium*	**It extends north to south along the eastern boundary of the park with the adjoining railway line.** It is of a mature age class in fair condition physiologically and structurally. It is a broad scrubby hedge lacking proper structure and perhaps this is by design to create a large buffer area between the park and the railway line. It consists predominantly of Bramble which is dominating the lower vegetation with Hawthorn throughout and infill areas of Elder, Dog-Rose and Holly. The Bramble is encroaching out into the linear grass strip that divides this hedge from the public footpath to the west. The upper canopy contains some Ash and Willow trees with a lot of Field Maple in the lower canopy and Ivy cover is heavy on some of these trees. It has value as screening in this											Remove any large size dead/ unstable growth that endangers the park to the west and the railway line to the east. If desirable, cut back the encroaching species to	-	B2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
	Elder *Sambucus nigra* **Gorse** *Ulex europaeus* **Dog Rose** *Rosa canina* **Ash** *Fraxinus excelsior* **Willow** *Salix sp.* **Field Maple** *Acer campestre*	area.   **The following trees are located within Hedge No.1.**										contain the width of the hedge structure and improve the structure of the hedge.		
1311	**Ash** *Fraxinus excelsior*	11	300/ 280/ 320	6	4	6	5	3	Early Mature	Fair	Fair It is located at the northern end of Hedge No.1 and it is multiple-stemmed from near base. It has suffered storm damage within its crown on its west side. Heavy Ivy cover is extending into its crown and this increasing the windsail of its crown and restricting the visual assessment to some degree.	Cut Ivy at ground level where heavy and remove to a height of 2m to allow for a more detailed assessment of its base and lower trunk.	20-40	B2
Tree Group No.4	**Ash** *Fraxinus excelsior*	A 14	A 240 (4 stems)	A 5	A 5	A 5	A 5	A 3	Early Mature	Fair	Fair It is a prominent group of trees within Hedge No.1. They are growing up as a group with a combined group canopy formation and they depend on each other for support/ shelter. Some of their crowns overhang towards the railway line. Heavy Ivy cover is extending into their crowns and this increasing the windsail of their crowns and restricting the visual assessment to some degree. There is some deadwood within their crowns of a	Remove large size dead/ unstable growth. Cut Ivy at ground level where heavy and remove to a height of 2m to allow for a more detailed assessment of their bases and lower trunks. Their crowns may require pruning away from the	20-40	B2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
											small size. There are some younger Ash trees located at the southern end of this tree group and together they will provide the long-term tree cover in this area. They have value as screening in this area. 	railway line in the future.		
1321	**Ash** *Fraxinus excelsior*	10	200 (6 stems)	4	4	5	4	2	Semi Mature	Fair	Fair It is growing at the southern end of Hedge No.1 next to the boundary with the railway line. It is multiple-stemmed from base with light Ivy cover beginning to extend into its crown. Bramble is also growing through its lower crown and it has a small crown overhang toward the railway line.	Cut Ivy at ground level. Its crown may require pruning away from the railway line in the future.	20-40	B1
		The following trees are located on either side of the public path that runs north to south, out from Hedge No.1 They have been planted in recent years and are growing in an open grass area running parallel with the public path. They are beginning to establish and have sufficient space to develop. They will provide good long-term tree cover in this area.										They would benefit from formative pruning to encourage good form/ structure.		
1312	**Fox Glove Tree** *Paulownia tomentosa*	6	140	1	2	2	2	2	Young	Fair/ Good	Fair/ Good It is a single stemmed tree growing on the east side of the path and its lower branches have been removed in order to raise up its crown.	Maintain a larger weed-free area around its base with mulch.	40+	C1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
1313	**Cherry** *Prunus avium*	5	120	2	2	3	3	2	Young	Fair/ Good	Fair It is growing on the west side of the path and is a single stemmed tree that divides into multiple-stems at a height of 1.5m.	Maintain a larger weed-free area around its base with mulch.	20+	C1
1314	**Walnut** *Juglans regia*	4	110	1	2	2	2	2	Young	Fair	Fair/ Poor It is growing on the west side of the path and its lower branches have been removed in order to raise up its crown with good callous growth around these wounds. The central leader has broken out in winds with multiple stemmed regrowth of a small size occurring at the breaking point and the co-dominant stems have assumed dominance.	Maintain a larger weed-free area around its base with mulch.	20-40	C1
1315	**Red oak** *Quercus rubra*	5	70	1	2	2	1	2	Young	Fair	Fair/ Poor It is growing on the east side of the path and it has suffered branch breakage in its crown on its west side. The central leader has broken out in winds and the co-dominant stems have assumed dominance.	Maintain a larger weed-free area around its base with mulch.	20-40	C1
1316	**Red oak** *Quercus rubra*	6	140	3	3	3	3	2	Young	Fair/ Good	Fair It is growing on the west side of the path and there is an acute union formation between stems at a height c.2m and this may develop into a structural weakness in the future.	Maintain a larger weed-free area around its base with mulch. It will require formative pruning in the future to address structural issues.	40+	C1
1317	**Beech** *Fagus sylvatica*	4	60	0	1	1	1	1	Young	Fair/ Good	Fair It is growing on the east side of the path and its lower branches have been removed in order to raise up its crown with small sized regrowth occurring from these pruning points.	Maintain a larger weed-free area around its base with mulch.	40+	C1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
1318	**Paperbark Maple** *Acer griseum*	3	70/ 60	1	1	1	1	1	Young	Fair	Fair It is growing on the west side of the path and it has suffered a bark wound near its base during grass maintenance in this area. It divides into two stems at a height of c.1m and its lower branches have been removed in order to raise up its crown.	Maintain a larger weed-free area around its base with mulch.	20-40	C1
1319	**Sessile Oak** *Quercus petraea*	5	70	1	1	1	1	2	Young	Fair	Fair It is growing on the east side of the path and it has suffered some small size root damage from digging in this area. Its lower branches have been removed in order to raise up its crown	Maintain a larger weed-free area around its base with mulch.	40+	C1
1320	**Sweet Chestnut** *Castanea sativa*	4	80	1	1	1	1	1	Young	Fair	Fair It is growing on the east side of the path and its lower branches have been removed in order to raise up its crown.	Maintain a larger weed-free area around its base with mulch.	40+	C1
1322	**Coast Redwood** *Sequoia sempervirens*	8	280	2	3	2	2	0	Young	Fair/ Poor	Fair/ Poor It leans from base and I suspect it has heaved at its root plate and is struggling to establish with tip die back evident. There is a secondary stem developing from its base.	Maintain a larger weed-free area around its base with mulch. Monitor its condition annually.	10+	C1
1323	**Oak** *Quercus robur*	5	70	1	1	1	1	2	Young	Fair	Fair It is growing in an open grass area and its lower branches have been removed in order to raise up its crown.	Maintain a larger weed-free area around its base with mulch.	40+	C1
Tree Group No.5	**Scots Pine** *Pinus sylvestris* **Larch** *Larix decidua*	A 5	A 180	A 2	A 2	A 2	A 2	0	Young	Fair/ Good	Fair/ Good It is located at the southern end of the site area in front of Woodland Block No.1 and consists of mixed pine species growing on either side of the path. They have good potential for the long term tree cover in this area.	Maintain a larger weed-free area around its base with mulch. They may require some selective thinning as they grow in size to recue	40+	C2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
												density and competition.		
Woodland Block No.1	**Ash** *Fraxinus excelsior* **Sycamore** *Acer pseudoplatanus* **Oak** *Quercus robur* **Birch** *Betula pendula* **Beech** *Fagus sylvatica* **Larch** *Larix decidua* **Field Maple** *Acer campestre* **Hazel** *Corylus avellana* **Horse Chestnut**	A 13	A 300	A 4	A 4	A 4	A 4	A 2	Early Mature	Fair/ Good	Fair It is located along the southern boundary of the site area. It is prominent woodland in this area and paths intersect it throughout breaking it up into sub-compartments. Its upper-canopy is made up of predominantly Ash and Sycamore with some Oak, Horse Chestnut, and Larch in places. It has a lower-canopy of Field Maple, Hawthorn and Hazel with some Birch and Beech in places. The understory consists of Bramble and self-seeded trees such as Sycamore and Birch. A lot of these trees have been drawn up for the light due to overcrowding/ competition and this has impacted on their structure. There is some naturally occurring deadwood within their crowns and some trees within have failed due to suppression from the larger neighbouring trees. Their lower branches have been removed to raise up their crowns and provide clearance over the paths and	Remove any dead/ unstable growth that endangers the public footpaths. Continue current maintenance to maintain clearance with the public footpaths. Cut Ivy at ground level where heavy on trees. This woodland block would benefit from ongoing, light, selective thinning to allow the better quality trees space to grow and develop. It would also benefit from infill planting with additional tree species to help further diversify tree	40+	A2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
	Aesculus hippocastanum **Hawthorn** *Crataegus monogyna* **Bramble** *Rubus fruticosus*										they have suffered some branch breakages from high-sided vehicles passing through this area. Ivy cover is beginning to extend into some of their crowns. These trees are growing as one coherent group with a combined group canopy formation and they depend on each other for support/ shelter. Their category grade is based on their merits as a woodland block and not as individual trees.  	species and to future proof the tree belt, and in particular to help compensate for the loss of Ash trees due to 'Ash Dieback' *(Hymenoscyphus fraxineus)* disease.		

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
Tree Belt No.2	**Ash** *Fraxinus excelsior* **Sycamore** *Acer pseudoplatanus* **Oak** *Quercus robur* **Beech** *Fagus sylvatica* **Larch** *Larix decidua* **Field Maple** *Acer campestre* **Hazel** *Corylus avellana* **Horse Chestnut** *Aesculus hippocastanum* **Hawthorn** *Crataegus monogyna* **Bramble** *Rubus fruticosus*	A 13	A 300	A 4	A 4	A 4	A 4	A 2	Early Mature	Fair/ Good	Fair It is located along the southern boundary of the site area extending east to west. It is a prominent tree belt in this area. Its upper-canopy is made up of predominantly Ash and Sycamore with some Oak, Horse Chestnut, and Larch in places. It has a lower-canopy of Field Maple, Hawthorn and Hazel with some Beech in places. The understory consists of Bramble and self-seeded trees such as Sycamore. A lot of these trees have been drawn up for the light due to overcrowding/ competition, affecting their structure. There is some naturally occurring deadwood within their crowns and some trees within have failed due to suppression from the larger neighbouring trees. Their lower branches have been removed to raise up their crowns and provide clearance over the path to the north. Ivy cover is beginning to extend into some of their crowns. These trees are growing as one coherent group with a combined group canopy formation and they depend on each other for support/ shelter. Their category grade is based on their merits as a tree belt and not as individual trees.	Remove any dead/ unstable growth that endangers the public footpath. Continue current maintenance to maintain clearance with the public footpaths. Cut Ivy at ground level where heavy on trees. It would benefit from ongoing, light, selective thinning to allow the better quality trees space to grow and develop. It would also benefit from infill planting with additional tree species to help further diversify tree species and to future proof the tree belt, and in particular to help compensate for the loss of Ash trees due to 'Ash Dieback' *(Hymenoscyphus fraxineus)* disease.	40+	A2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
														
		The following trees are growing on the on the north side of the public path north of Tree Belt No.2. These trees have been planted into this grass area in recent times and they are of a small size. They have been planted at wide spacing's as individual trees.  										-	-	-
1324	**Sycamore** *Acer*	9	270	3	2	4	3	3	Semi Mature	Fair	Fair/ Poor It divides into two stems at a height of c.2m and it	Maintain a larger weed-free area around its base	20+	C1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
	pseudoplatanus										has a bark wound on its south side with the fungus '*Kretzschmaria deusta'* present. It is suckering from base.	with mulch. Remove basal suckers.		
1325	**Ash** *Fraxinus excelsior*	9	230	2	4	2	3	3	Semi Mature	Fair	Fair/ Poor Its lower branches have been removed in order to raise up its crown and it has suffered some bark wounding on the main stem with good callous growth around these wounds. The central leader has broken out in winds and the side branches have assumed dominance.	Maintain a larger weed-free area around its base with mulch.	20+	C1
1326	**Scarlet Oak** *Quercus coccinea*	3	60	1	1	1	1	2	Young	Fair/ Poor	Fair/ Poor It moves from base and I suspect it heaved at its root plate before it could properly establish. It has suffered a bark wound on its north side during grass maintenance in this area and decay is developing into the underlying timber at this point.	Maintain a larger weed-free area around its base with mulch. Monitor its stability.	10+	C1
1327	**Scarlet Oak** *Quercus coccinea*	5	90	1	1	2	2	2	Young	Fair/ Good	Fair/ Good Its lower branches have been removed in order to raise up its crown and it is establishing well. There are Sycamore seedlings developing at its base.	Maintain a larger weed-free area around its base with mulch. Remove Sycamore seedlings developing at its base.	40+	C1
1328	**Scarlet Oak** *Quercus coccinea*	6	100	2	2	2	2	2	Young	Fair	Fair It has suffered a large size bark wound on its west side during grass maintenance in this area and this wounding amounts to c.30% the circumference of the live bark. There is a broken branch within its crown and its lower branches have been removed in order to raise up its crown.	Remove dead/ unstable growth. Maintain a larger weed-free area around its base with mulch.	20+	C1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
1329	**Scarlet Oak** *Quercus coccinea*	6	110	2	2	3	2	2	Young	Fair/ Good	Fair Its lower branches have been removed in order to raise up its crown and it has suffered a bark wound near base during grass maintenance in this area. There is a broken branch in its crown.	Remove dead/ unstable growth. Maintain a larger weed-free area around its base with mulch.	40+	C1
1330	**Scarlet Oak** *Quercus coccinea*	6	110	2	3	2	3	2	Young	Fair	Fair Its lower branches have been removed in order to raise up its crown and it has suffered a bark wound near base during grass maintenance in this area. There is a broken branch on its west side.	Remove dead/ unstable growth. Maintain a larger weed-free area around its base with mulch.	40+	C1
1331	**Scarlet Oak** *Quercus coccinea*	8	130	3	3	3	2	2	Young	Fair/ Good	Fair/ Good It divides into two stems at a height of c.3m and its lower branches have been removed in order to raise up its crown.	Maintain a larger weed-free area around its base with mulch.	40+	C1
1332	**Scarlet Oak** *Quercus coccinea*	6	130	3	2	2	2	2	Young	Fair/ Good	Fair/ Good Its lower branches have been removed in order to raise up its crown and it is establishing well.	Maintain a larger weed-free area around its base with mulch.	40+	C1
1333	**Cherry** *Prunus sp.*	3	70	1	1	1	1	2	Young	Fair/ Poor	Fair/ Poor I suspect it heaved at its root plate before it could properly establish. Its lower branches have been removed in order to raise up its crown.	Maintain a larger weed-free area around its base with mulch. Monitor its stability.	10+	C1
1334	**Hornbeam** *Carpinus betulus 'Fastigiata'*	8	170	2	2	2	2	2	Semi Mature	Fair/ Good	Fair/ Good It has suffered a bark wound near base during grass maintenance in this area.	Maintain a larger weed-free area around its base with mulch.	20-40	C1
1335	**Rowan**	6	120	2	2	2	2	2	Young	Fair/	Fair	Maintain a larger weed-	20+	C1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
	Sorbus aucuparia									Good	It divides into multiple stems at a height of c.2m and its lower branches have been removed in order to raise up its crown. It has suffered a bark wound near base during grass maintenance in this area.	free area around its base with mulch.		
1336	**Paperbark Maple** *Acer griseum*	3	70	1	1	1	1	2	Young	Fair/ Good	Fair It used to be a twin stem tree from 0.5m up but one stems has been removed leaving a large size pruning wound that is susceptible to decay.	Maintain a larger weed-free area around its base with mulch.	20+	C1
1337	**Serviceberry** *Amelanchier lamarckii*	4	70	1	1	1	1	2	Young	Fair/ Good	Fair/ Good Its lower branches have been removed in order to raise up its crown and it is establishing well.	Maintain a larger weed-free area around its base with mulch.	20+	C1
Tree Belt No.3	**Ash** *Fraxinus excelsior* **Sycamore** *Acer pseudoplatanus* **Oak** *Quercus robur* **Beech** *Fagus sylvatica* **Rowan** *Sorbus aucuparia* **Cherry** *Prunus avium* **Norway Maple** *Acer*	A 13	A 280	A 4	A 4	A 4	A 4	A 3	Early Mature	Fair/ Good	Fair It is located north of Tree Belt No.2 and it protrudes out into the open grass area. It has an upper-canopy of predominantly Ash and Sycamore with some Horse Chestnut, Oak and Norway Maple in places. It has a lower canopy of Cherry, Hazel, Willow and Field Maple with some Rowan and Beech in places. There is Bramble throughout its understory and there are self-seeded trees developing such as Ash, Sycamore and Rowan. Their lower branches have been removed to raise up their crowns resulting in pruning wounds. Ivy cover is beginning to extend into some of their crowns. These trees are growing as one coherent group with a combined group canopy formation and they depend on each other for support/ shelter. Their category grade is	Remove any dead/ unstable growth that endangers the public footpath to the south and west. Continue current maintenance to maintain clearance with the public footpaths. Cut Ivy at ground level where heavy on trees. They would benefit from ongoing, light, selective thinning to allow the better quality trees space to grow and develop. It would also benefit from infill planting	40+	B2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
	platanoides **Field Maple** *Acer campestre* **Hazel** *Corylus avellana* **Horse Chestnut** *Aesculus hippocastanum* **Willow** *Salix sp.* **Bramble** *Rubus fruticosus*										based on their merits as a tree belt and not as individual trees.  	with additional tree species to help further diversify tree species and to future proof the tree belt, and in particular to help compensate for the loss of Ash trees due to 'Ash Dieback' *(Hymenoscyphus fraxineus)* disease.		
Tree Belt No.4	**Ash** *Fraxinus excelsior* **Sycamore** *Acer pseudoplatanus* **Oak** *Quercus robur*	A 16	A 380	A 5	A 5	A 5	A 5	A 4	Early Mature	Fair	Fair It extends north to south along the western boundary of this open grass area along the boundary with 'Shanganagh Castle'. It is cordoned off from the open grass area by a pathway which has been widened recently towards the trees which may have resulted in some soil and root damage that may impact on	Remove large size dead/ unstable growth that endangers the public footpath to the south and east. Continue current maintenance to maintain clearance with the public	40+	A2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
	Beech *Fagus sylvatica* **Alder** *Alnus glutinosa* **Rowan** *Sorbus aucuparia* **Cherry** *Prunus avium* **Poplar** *Populus sp.* **Norway Maple** *Acer platanoides* **Field Maple** *Acer campestre* **Hazel** *Corylus avellana* **Horse Chestnut** *Aesculus hippocastanum* **Willow** *Salix sp.* **Hawthorn** *Crataegus monogyna* **Bramble** *Rubus fruticosus*										the trees. The upper canopy consists of predominantly Ash and Sycamore with some Oak, Cherry and Poplar in places and these Poplars tower over the rest of the upper-canopy. The lower canopy consists of mainly Field Maple, Hazel, and Horse Chestnut with some Beech, Norway Maple, Willow, Rowan and Alder in places. Bramble is dominating the understory and there is also some Hawthorn present along with self-seeded trees such as Ash, Sycamore and Field Maple. Their crowns overhang the public footpath to the east at the southern end of this tree belt and their lower branches have been removed to provide clearance in this area. Some larger trees have failed within but don't pose any threat the public path and there is some deadwood throughout their crowns. Ivy cover is beginning to extend into some of their crowns increasing wind-loading in some trees. These trees are growing as one coherent group with a combined group canopy formation and they depend on each other for support/ shelter. Their category grade is based on their merits as a tree belt and not as individual trees.	footpaths. Cut Ivy at ground level where heavy on trees. They would benefit from ongoing, light, selective thinning to allow the better quality trees space to grow and develop. It would also benefit from infill planting with additional tree species to help further diversify tree species and to future proof the tree belt, and in particular to help compensate for the loss of Ash trees due to 'Ash Dieback' *(Hymenoscyphus fraxineus)* disease.		

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
														
		The following trees are growing on the west side of the open grass area to the east of the public footpath and Tree Belt No.4.  										They would benefit from formative pruning to encourage good form/ structure.	-	-
1338	**Oak** *Quercus sp.*	6	140	2	2	3	3	2	Young	Fair/ Good	Fair/ Good Its lower branches have been removed in order to raise up its crown and it is establishing well.	Maintain a larger weed-free area around its base with mulch.	40+	C1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)				C-Ht. (m)	Age Class	Phys Con.	Structural Condition Other Comments	Preliminary Recommendation	Remaining years	Category Grade
				N	S	E	W				**N-**North **S-**South **E-**East **W-**West **Ht.-** Height **C-** Crown **Phy Con.-** Physiological Condition	**A-** Average **Dia.-** Diameter **Cat.-** Category		
1339	**Beech** *Fagus sylvatica*	6	110	1	1	1	1	2	Young	Fair	Fair Its lower branches have been removed in order to raise up its crown and it has suffered a bark wound near base during grass maintenance in this area.	Maintain a larger weed-free area around its base with mulch.	40+	C1
1340	**Oak** *Quercus robur cv.*	6	100	3	1	3	2	2	Young	Fair	Fair Its lower branches have been removed in order to raise up its crown and it has suffered bark wounding in its lower crown with a tear wound evident.	Maintain a larger weed-free area around its base with mulch.	40+	C1
1341	**Paper Birch** *Betula papyrifera*	7	160	3	2	3	2	2	Young	Fair	Fair Its lower branches have been removed in order to raise up its crown leaving pruning wounds where decay is developing into the underlying timber. There is twisting of stems occurring in the upper-crown and this may develop into a structural weakness in the future.	Carry out formative pruning to address structural issues. Maintain a larger weed-free area around its base with mulch.	20+	C1
Notes:														