



# Arborist Associates Ltd

94 Ballybawn Cottages, Enniskerry, Co. Wicklow

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Ref: FLR07895666

7<sup>th</sup> May 2021

**For the attention of Ms. Ciara D'Arcy**

Executive Architect  
 Architects' Department  
 Dún Laoghaire-Rathdown County Council  
 County Hall  
 Marine Road  
 Dún Laoghaire  
 Co Dublin

Dear Ms. D'Arcy,

**Re: An Arboricultural Assessment of the trees located on the site area at 'Friarsland',  
 Roebuck Road, Clonskeagh, Co. Dublin.**

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 including the services and I 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	RBR001	A3	1:250
Tree Protection Plan	RBR002	A3	1:250
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.

*Felím Sheridan*

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

**Felím 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 trees located on the site area at 'Friarsland', Roebuck Road, Clonskeagh, Co. Dublin.**

**Prepared for: Dùn-Laoghaire Rathdown County Council**

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

**Date: 7<sup>th</sup> May 2021**

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## **1.0 Instructions**

- 1.1 I have been instructed by the architects department of Dún-Laoghaire Rathdown County Council to carry out an arboricultural assessment of the site area at 'Friarsland', Roebuck Road, Clonskeagh, Co. Dublin 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 our condition tree assessment report and drawing No.RBR001 which I have prepared as a constraints drawing to aid the design team.
  - 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 5.0' of our report and drawing No.RBR002 for detail.
  - C -** To show on this drawing the position of the tree protective fencing and other tree protection measures that will need to be put in place and be maintained in place until all construction works are complete. See 'Section 6.0' of our report and drawing No.RBR002 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.
- 2.3 Before undertaking any work to these trees, it would be advisable to check whether any planning or tree preservation controls are in operation and to ensure any tree works comply with the wild life Act.

## **3.0 Survey Data Collection and Methodology**

- 3.1 The assessment starts at the northern corner of the site and works in an anti-clockwise direction around the site area. The trees have been numbered with aluminum tag reference numbers from 0486-0497 and where access was not available the trees 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 categorised 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 summarises 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.

The category 'U' trees within the site area have been identified on our drawings (Nos.RBR001 & RBR002) with a 'Red' donut around their trunk positions. Due to the condition of these trees, they should not be considered a constraint on the design layout of the proposed development of this site area.

**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.

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

**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 this site area have been identified on our drawings (Nos.RBR001 & RBR002) 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. As part of the future management, some of these will probably be removed for one reason or another. This category consists of trees of all age classes from young to mature. These trees should not be seen as a considerable constraint on the development of these lands, but should be considered for retention where viable.

The category 'C' trees within this site area have been identified on our drawings (Nos.RBR001 & RBR002) with a 'Grey' donut around their trunk positions.

- 3.5 The trees have been plotted onto the attached drawing (DWG No.RBR001) by a land survey company. This drawing has been developed as a constraints drawing to aid the design team in the layout of the 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 located at the junction of 'Roebuck Road' to its east and the entrance road into 'White Oaks' to its south. It is a triangular shaped plot of land and the bulk of it is covered in tarmac surfacing. It is bordered by private houses to its north and west and public roads to its east and south. A stream makes up the boundary on the north and west sides with a wall making up the eastern boundary and a wire-mesh fence making up the southern boundary with hedging outside of this fence.
- 4.2 The site area has lain derelict for some time and scrub species such as Bramble, Elder and Buddleia are starting to self-seed. There is a wooden fence separating the stream from the site area and there is a broken line of trees growing between the two and this is bulked up with trees growing on the adjoining property side of the stream. The trees within and adjoining this site area are located along these boundaries and consists of Sycamore, Lime, Elm, Ash and Leyland Cypress ranging in age from early-mature to mature age classes. Within this area, Tree Nos.0486, 0496 & 0497 have been given a category grade of 'B' with Tree Nos.0492 & 0493 being given a category grade of 'U' and the remaining trees being given a category grade of 'C' with their most value being screening between properties.

These trees have been incorporated into the previous development of this area with surfacing within their root zones and some impacts may have been caused by these past development works.

- 4.3 Hedge No.1 makes up part of the southern boundary dividing the site area from the entrance road into 'White Oaks' and has some value for low screening in this area. It is growing in a narrow linear strip and was formerly a mixed shrub border with species such as Viburnum, Berberis, Pyracantha, Cherry Laurel and Photinia Red Robin and Griselinia, but has been maintained as a hedge structure in recent years.
- 4.4 Within the overall site area, 12No.trees were tagged individually with two trees and one hedge numbered numerically.

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

<b>Category Grade</b>	<b>No. of trees</b>
Category U <b>2 Trees</b>	<b>Tree No. 0492 &amp; 0493</b>
Category A <b>0 Trees</b>	<b>Tree Nos. No Trees</b>
Category B <b>3 Trees</b>	<b>Tree Nos. 0486, 0496 &amp; 0497</b>
Category C <b>9 Trees</b>	<b>Tree Nos. 0487, 0488, 0489, Tree No.1, Tree No.2, 0490, 0491, 0494 &amp; 0495.</b>
<b>+ 1 Hedge</b>	<b>Hedge No. 1</b>
<b>Total</b>	<b>14 Trees + 1 Hedge</b>

## **5.0.0 Arboricultural Implication Study**

### **5.1.0 Introduction**

- 5.1.1 It is proposed to develop this site area for a residential development and it will be necessary to allow for infrastructural works such as services.
- 5.1.2 This section of the document is designed to assess the impact of the proposed developed 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 vegetation shown for retention free from adverse impacts for the duration of the construction period.
- 5.1.3 On drawing No.RBR002, I have shown the tree vegetation for removal due to the proposed development and condition/management with 'Red Hatched' crown spreads and those to be retained with a 'Green Hatched' crown spread. I have also shown on this drawing the position of any necessary tree protection measures in order to protect the root zone of the tree vegetation being retained within the vicinity of where the construction works will occur. These work exclusion zones are shown on this drawing using 'Orange Hatching' and these areas will need to be cordoned off by the erection of fencing or other means at the start of the works and this will need to be maintained in place until all works are completed. This fencing is to protect the root zone of the trees and to ensure their successful integration into the development of this site area.
- 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 Impact Assessment

5.2.1 To facilitate the proposed development, it is necessary to remove the following trees from this site area:

- Tree No.0487 – a mature Leyland Cypress – category grade C2
- Tree No.0490 – an early-mature Elm – category grade C2
- Tree No.0491 – an early-mature Leyland cypress – category grade C2
- Tree No.0492 – a mature Lime – category grade U
- Tree No.0493- an early-mature Sycamore – category grade U
- Hedge No.1 – a mature hedge of mixed shrubs – category grade C2

5.2.2 The remaining trees along this boundary are retainable, although some of the construction works may come close to these trees, but it is expected that the extent of the root zones of these trees out into the site area has been restricted by the past development works that have occurred and with this area being in surfacing right up to the boundary fence which cordons off these trees from the main site area.

To incorporate these trees into the development and achieve a satisfactory juxtaposition within the completed development, it will be necessary to carry out remedial tree pruning works to achieve this, in particular to Tree Nos.0488 & 0489.

During the construction, the existing surfacing between the trees and the building line needs to be left in place for the duration of the construction and reinforced with additional stone to ensure any root material underneath is protected from impacts during the construction works.

During the construction, access for the works is to be limited to light weight small machinery and manual works and large machines such as tele-porters are not to be allowed to drive around the building or into this area.

For the duration of the construction works, tree protection fencing will need to be erected to cordon off as much of the root zones as possible and the crown spreads of the trees into the site area to prevent damage to the ground and also their crowns from direct impact from the works.

On completion of the construction works, the surrounding surfacing will need to be removed and this area incorporated into the finished development where it will be in soft landscape. During these works, it will be necessary that care is taken when removing this surfacing to ensure that any rooting material underneath is not damaged. These works would be best carried out under the supervision of the project Arboriculturist and the excavations are to be no deeper than any roots exposed.



### 5.3.0 Tree Retention and Protection

#### 5.4.1 Main items for consideration during the proposed construction process:

Item	Comments
<b>Tree Pruning</b>	<p>As part of the initiating works, the crowns of some of the trees being retained are to be pruned to remove dead/unstable growth, 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.</p> <p>All tree felling and pruning work will need to be carried out by qualified and experienced tree surgeons <i>before</i> any construction work commences; all tree work should be in accordance with <i>BS3998 (2010) Tree Work – Recommendations</i>.</p> <p>All trees for removal will need to be felled to stumps taking care not to cause damage during the process to the trees being retained and all stumps, in particular those which are located within the root zone of trees being retained that need to be removed are to be ground out using a mechanical stump grinder taking care not to cause root damage to the trees being retained.</p>
<b>Tree Protection</b>	<p>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.</p> <p>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.RBR002) <b>prior</b> 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 British Standard <i>BS5837: Trees in relation to design, demolition and construction (2012)</i> specifies appropriate fencing, see 'Appendix 1' for details.</p> <p>The fencing is to be of a strong robust build capable of withstanding the works that are proposed within its vicinity. The fencing will need to be 2.3m high and constructed in accordance with figure 2 of BS 5837 2012 (see 'Appendix 1' for detail) 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.</p> <p>All weather notices will need to be erected on the fences with</p>

Item	Comments
	<p>words such as: "Tree Protection Fence — Keep Out".</p> <p>In some areas where the construction works will encroach in close or into the calculated root zones of the trees and where the tree protection fencing cannot be erected to enclose the entire root zone, then ground protection will need to be put in place.</p> <p>When the fencing has been erected and ground protection put in place, then 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 authorized by the project Arboriculturist.</p>
<b>Construction</b>	<p>It will be important that good housekeeping is in place at all times so that the site does not become congested.</p> <p>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.</p> <p>Where work space between the building lines and 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 of trees.</p> <p>For light weight work areas such as for the storage of work material and pedestrian paths, this protection could be provided by the use of boarding and for heavier loading, these areas will need protection with the use of Cell Web of similar product.</p> <p>Where this occurs, the tree protective fence lines are not to be moved to accommodate these until such time as the required ground protection is signed off by the project engineers and arborist and put in place to the recommendations of section 6 of BS5837 2012.</p> <p>Care will need to be taken when planning site operations to ensure that wide or tall loads or plant 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.</p> <p>Materials, which can contaminate the soil, e.g. concrete mixings, diesel oil and vehicle washings, cannot be discharged within 10m of a tree stem.</p> <p>Fires cannot 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.</p>

Item	Comments
	<p>Notice boards, wires and such like cannot be attached to any trees. Site offices, material storage and contractor parking will need to be located outside the work exclusion zones of the tree and hedge vegetation being retained.</p>
<b>Services</b>	<p>See project engineer's drawings for detail for service routes.</p> <p>From my understanding of the service drawing provided to me for assessment, there should be no conflict between these and the tree vegetation proposed to be retained.</p> <p>Prior to the installation of any services routed near trees, they 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 tree vegetation shown for retention.</p>
<b>Boundary Treatments</b>	<p>It is my understanding that the boundary treatments along by the trees on or adjoining this site area are to be of a fence/rail structure where there will only be a need to excavate out small diameter holes for the upright with minimal impact expected on the trees.</p> <p>The working ground area within the root zones of the trees required during these works will need to be protected from impacts/damage by a suitable ground protection such as scaffold planks laid butt jointed on a bed of woodchip.</p>
<b>Landscaping</b>	<p>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. See landscape architects drawings and sections for detail.</p> <p>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.</p> <p>It will be important within these areas that all works are carried out manually with minimal intervention with machinery and where machinery is required; this will need to be of a small light weight type and all works will need to be supervised by the project arborist. Where this machinery needs to transverse the root protection areas of trees, the route for this will need to be protected by boarding or other means to meet the requirements of section 6 of BS5837 2012.</p>

#### **5.4.0 Monitoring**

- 5.4.1 Any construction works within close proximity to retained tree vegetation 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.
- 5.4.2 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.
- 5.4.3 Copies of the tree retention and protection plan (Drawing No. RBR002), 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.
- 5.4.4 On the completion of the construction works, all tree vegetation 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 contractor/site manager on how the tree vegetation needs 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.RBR002), for the position of the protective fencing and other mitigation measures.
- 6.3 The protection of the vegetation shown for retention within this proposed development is divided into three main sections starting with the preconstruction stage right through to post construction and the reassessment of this retained vegetation.

## 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 landscape architect, the project Arboriculturist and local authority to identify and finalize the vegetation for removal and the line of the protective fencing.

### 6.6.0 Tree works

6.6.1 The client 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 development layout 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 tree vegetation has been removed, the line of the protective fencing that is required around the trees being retained **must be** erected as per Dwg. No.RBR002.
- 6.7.2 The fencing will need to be 2.3m high and constructed in accordance with figure 2 of BS 5837 2012 (see fencing 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 Signs need to be attached to these fences warning people to 'keep out'. See detail within drawing No.RBR002 & 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.

## Stage 2:

### 6.8.0 The Construction Works Stage

- 6.8.1 **Protective fencing** - During the course of the works, special attention must be paid to ensure that these fences and all other 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.

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

The excavations 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 the tree and other vegetation 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 vegetation to be retained and this may include such methods as retaining walls or similar.

Where roots of trees to be retained are exposed during the excavation works, these are to be assessed by the project Arborist and pruned back beyond damaged material. The excavated face is then to be covered with soil or with Hessian sacking to prevent further drying out and death of root material. Where the Hessian sacking is used, it will be necessary to keep this moist especially during dry periods.

- 6.8.3 **Working within the RPA (Root Protection Area)** – If it becomes necessary to carry out works within the RPA of a tree or other vegetation being retained, 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.

- 6.8.4 **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.

### 6.9.0 Other items

6.9.1 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:

#### 6.10.0 Post Construction Works

6.10.1 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 these lands and is for the sole use of the above named client and refers to only those trees 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 7/05/2021

**Felim Sheridan - For Arborist Associates Ltd.**

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.**

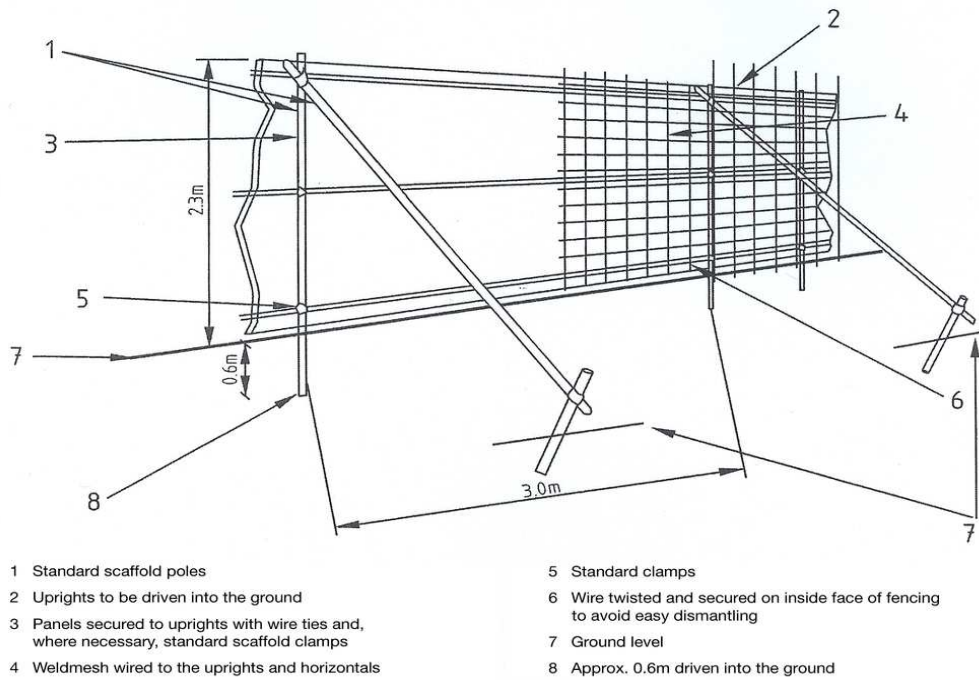


Figure 2. – Protective fencing for RPA

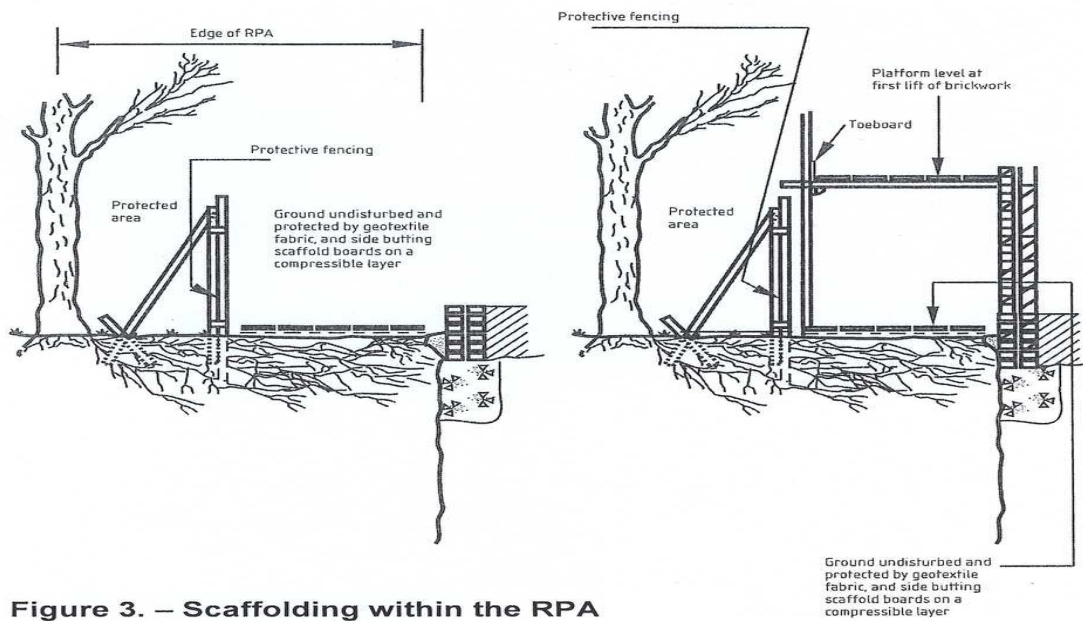


Figure 3. – Scaffolding within the RPA

# **Appendix 2**

## **Condition Tree Assessment**

**On the Site Area at 'Friarsland', Roebuck Road,  
Clonskeagh, Co. Dublin.**

**Date: 11<sup>th</sup> February 2021**

## 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.

**Arborist Associates Ltd. - Arboricultural Assessment of the trees located in the site area at 'Friarsland', Roebuck Road, Clonskeagh, Co. Dublin. May 2021**

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 from 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 m<sup>2</sup>.

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

$$\sqrt{((\text{stem diameter } 1)^2 + (\text{stem diameter } 2)^2 \dots + (\text{stem diameter } 5)^2)}$$

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

$$\sqrt{((\text{mean stem diameter})^2 \times \text{number of stems})}$$

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	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			
<b>A condition assessment of the trees located within the site area at 'Friarsland', Roebuck Road, Clonskeagh, Co. Dublin.</b>														
<p><b>The survey starts at the northern corner of the site area, where the stream goes under 'Roebuck Road', and works southwards along the streams bank towards the entrance to 'White Oaks' housing estate.</b></p> <p>A wooden fence partitions the site area from the stream and the trees are growing in a confined narrow strip between this fence and the bank of the stream. These trees are growing up with a combined group canopy formation and some are dependent on one another for support/ shelter. The trees are generally of low-quality; however, they have some value for screening for the properties on the west side of the stream.</p> <p><b>The following gives details on the trees along this boundary with the stream.</b></p>												These trees hold more value collectively than as individuals so it is important to consider the group growing dynamic before carrying out any works; as pruning/ removal works may result in exposure issues the neighbouring trees.		
0486	Lime <i>Tilia sp.</i>	16	360 (6 stems)	5	5	5	5	0	Mature	Fair	Fair It is growing 2m out from the boundary wall with Roebuck Road and there is a lot of waste piled around its base. It has a symmetrical crown that overhangs the front garden of the house to the west. It is multiple-stemmed from base with acute union formations between stems and is suckering from base limiting the visual assessment. There are bark wounds on its south side on two of its stems and these wounds extend from ground level to c.4m up. There is callous growth around these wounds, but the timber is still exposed to decay.	Remove dead/ unstable growth and prune to shape/ balance crown.  Tidy up around its base.  It may be necessary to prune the crown overhang away from the house to the west, as it grows in size.	20+	B1
0487	Leyland Cypress	18	520/ 610/	3	5	4	6	1	Mature	Fair	Fair It is growing on the edge of the stream and is	It may be necessary to prune the crown overhang	10-20	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			
	× <i>Cuprocyparis leylandii</i>		640								multiple-stemmed from base with a secondary stem developing from layering. Its crown is starting to overhang the roof of the house to its west. There is bark wounding on its north side leaving the timber exposed to decay and there is a wooden post jammed between one of the main stems and this may have an impact on the tree as it grows in size. There is small size deadwood in its crown.	away from the house to the west, as it grows in size.		
0488	<b>Sycamore</b> <i>Acer pseudoplatanus</i>	11	190	1	5	3	1	2	Early Mature	Fair	Fair/ Poor It is growing up between Tree Nos.0489 and 0487 and is sheltered in its present group growing environment. It has been drawn up for the light due to overcrowding/ competition and is poorly structured as a result with an asymmetrical crown weighed into the site area to the east.	Prune crown to address unbalance and any exposure caused by the works to the surrounding trees.	10-20	C2
0489	<b>Sycamore</b> <i>Acer pseudoplatanus</i>	11	220 (6 stems)	3	6	4	4	1	Mature	Fair	Fair/Poor It is growing on the edge of the stream and is multiple-stemmed from base. I suspect it is the regrowth from a failed tree as the stems are growing from a larger decayed stump. Its crown is nearly overhanging the house to the west. A metal wire is wrapped around one of the main stems on its south side and is now embedded in the trunk. Heavy Ivy cover is extending into its crown and is increasing its crown windsail.	Cut Ivy at ground level.  It may be necessary to prune the crown overhang away from the house to the west, as it grows in size.	10+	C2
Tree No.1	<b>Sycamore</b> <i>Acer pseudoplatanus</i>	7	300	5	4	3	0	0	Early Mature	Fair/ Poor	Poor It is growing on the opposite side of the stream, on the edge of the stream bank and was not accessible	Management is outside of this site area.	10+	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	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		
											for a detailed assessment. I suspect its crown has broken out at a height of c.4m, leaving an asymmetrical crown weighed towards the north. Heavy Ivy cover is limiting the visual assessment from this side of the stream and is also starting to suppress the crown.	Ivy should be cut at ground level to improve the windsail of its crown.		
Tree No.2	<b>Sycamore</b> <i>Acer pseudoplatanus</i>	16	800	5	2	3	5	3	Mature	Fair	Fair/ Poor It is growing on the opposite side of the stream and was not accessible for a detailed assessment. It is growing in a confined space, tight to the boundary wall of a back garden to the west. It has an asymmetrical crown weighed towards the west and its crown overhangs three back gardens to the west. Heavy Ivy cover is limiting the visual assessment from this side of the stream. It is twin stemmed from c.3m up and the stem on the south side has either broken out or has been removed at this height, this has left its crown more open/ exposed on this side.	Management is outside of this site area.  Ivy should be cut at ground level to improve the windsail of its crown.  Monitor its condition, as a further deterioration in its structural integrity would warrant further remedial works.	10+	C2
0490	<b>Elm</b> <i>Ulmus glabra</i>	17	320/ 310/ 300	7	8	7	6	5	Early Mature	Fair	Fair It consists of three stems growing in a short line on the edge of the stream and they are growing up and out to the east for light due to overcrowding/ competition. They are sheltered in their present group growing environment. Light Ivy cover is beginning to extend into their crowns. They may become infected by 'Dutch Elm Disease'.	Cut Ivy at ground level.  Monitor for infection by 'Dutch Elm disease'.	10-20	C2
0491	<b>Leyland Cypress</b>	8	140/	2	3	3	2	1	Early Mature	Fair	Fair/ Poor It is twin-stemmed from 0.5m up and it is growing up	It requires no work at present.	20+	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		
	× <i>Cuprocyparis leylandii</i>	170									and out to the east due to overcrowding/ competition. There is small size deadwood in its crown.			
0492	<b>Lime</b> <i>Tilia sp.</i>	14	240/ 160/ 280/ 320	5	5	5	6	0	Mature	Fair	Poor It is growing tight to the wooden fence on its east side and a stem has been removed to facilitate the erection of the wooden fence. It is multiple-stemmed from base with acute union formations between the stems and two stems have split apart at base with the fungus 'Kretzschmaria deusta' present; I suspect that neighbouring trees are preventing these stems from splitting/ moving any further, at the moment.	Due to its condition and proximity to houses to the west, I would recommend its <b>removal</b> as part of management.	<10	U
0493	<b>Sycamore</b> <i>Acer pseudoplatanus</i>	5	300	0	0	3	5	3	Early Mature	Fair/ Poor	Poor It has an asymmetrical crown weighed in over the site area to the east. It used to be multiple-stemmed from base, but several stems have been cut back in the past leaving one stem extending to the south. Unsuccessful attempts have been made to cut this remaining stem away and I would have concerns over its structural integrity as a result. It has an asymmetrical crown weighed to the south and Ivy cover is extending into the crown.	Cut/ coppice back to a small stump and allow re-sprouting.	<10	U
0494	<b>Ash</b> <i>Fraxinus excelsior</i>	11	280	5	5	4	2	3	Early Mature	Fair	Fair It is growing tight to the wall that forms the entrance in 'White Oaks' housing estate with the potential to cause structural damage to the wall as it grows in size. Ivy cover and Bramble are beginning to extend into its lower-crown. Its lower branches have been recently pruned on its west side to prevent crown	Remove Ivy and Bramble growing into its lower-crown.  Monitor the wall for structural damage as the tree grows in size.	10+	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							
											<b>N</b> -North <b>S</b> -South <b>E</b> -East <b>W</b> -West <b>Ht.</b> - Height <b>C</b> - Crown <b>Phy Con.</b> - Physiological Condition	<b>A</b> - Average <b>Dia.</b> - Diameter <b>Cat.</b> - Category		
											overhang into the back garden of a house to the west.			
0495	<b>Leyland Cypress</b> × <i>Cuprocyparis leylandii</i>	17	680/ 270	5	6	5	4	2	Mature	Fair	Fair It is multiple-stemmed from c.2m up and it has been heavily reduced on its west side to prevent crown overhang into the back garden of a house to the west. It is growing close to the base of the block wall and may have the potential to cause structural damage to the wall as it grows in size.	Reduce its crown size by 2-3m to address structural issues and exposure issues caused by the pruning of neighbouring trees.	10-20	C2
0496	<b>Lime</b> <i>Tilia sp.</i>	17	310	5	5	2	2	2	Early Mature	Fair	Fair It is growing up between Tree Nos.0495 and 0497 and is sheltered in its present group growing environment; however, it has been drawn up for the light due to overcrowding/ competition and is poorly tapered as a result. Its lower branches have been removed in the past to raise up its crown with stubs remaining and its lower crown has been pruned on the east side to clear the overhead wire with epicormic growth developing from these pruning points.	Management may be outside of this site area.  Requires no work at present.	40+	B1
0497	<b>Sycamore</b> <i>Acer pseudoplatanus</i>	18	670	5	6	6	6	2	Mature	Fair	Fair It is a prominent feature at the entrance to 'White Oaks' housing estate. Its lower branches have been pruned in the past to raise up its crown with stubs remaining. There is small size deadwood in its crown.	Management is outside of this site area.	20+	B1
<b>Hedge No.1</b>	<b>Berberis</b> <i>Berberis thunbergii</i>	<b>It forms the part of the southern boundary of this site area with the public road to 'White Oaks'.</b> It is of a mature age class in fair condition physiologically and structurally. It runs at an angle from east to south and									Continue ongoing maintenance to maintain	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	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					
	<b>Pyracantha</b> <i>Pyracantha coccinea</i> <b>Cherry Laurel</b> <i>Prunus laurocerasus</i> <b>Photinia</b> <i>Photinia x fraseri</i> Red Robin <b>Bramble</b> <i>Rubus fruticosus</i> <b>Viburnum</b> <i>Viburnum tinus</i> <b>Griselinia</b> <i>Griselinia littoralis</i>	was initially planted in this linear strip as an ornamental shrub border but has been cut into a hedge structure in recent years. The main shrub species are Berberis, Pyracantha, Cherry Laurel, Viburnum with some Photinia and Griselinia in places with infill areas of Bramble. It has value as low-screening along this boundary.									current size and width.						
<b>Notes:</b>		<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Average Height</th> <th>Average Width</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">2m</td> <td style="text-align: center;">2m</td> </tr> </tbody> </table>												Average Height	Average Width	2m	2m
Average Height	Average Width																
2m	2m																