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7th December 2021

Document Register

Title	DWG No.	Page Size	Scale
Tree Constraints Plan	TCL-P3-001 Overall Plan	A0 (Colour)	1:1000
	TCL-P3-001 Part 1	A0 (Colour)	1:500
	TCL-P3-001 Part 2	A0 (Colour)	1:500
Tree Protection Plan	TCL-P3-002 Part 1	A0 (Colour)	1:1000
	TCL-P3-002 Part 1	A0 (Colour)	1:500
	TCL-P3-002 Part 2	A0 (Colour)	1:500
Arboriculture Report	--	A4	--

Arborist Associates Ltd.

An Arboricultural Assessment on the Site Area for 'Tubber Lane- Phase 3' Residential Development at Adamstown, Lucan, Co. Dublin.

Prepared for: Hugh McGreevy & Sons and Tierra Ltd.

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Date: 7th December 2021

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1.0 Instructions

1.1 I have been instructed by Hugh McGreevy & Sons and Tierra Ltd. to assess the site area for 'Tubber Lane- Phase 3' Residential Development at Adamstown, Lucan, Co. Dublin and report on the following:

A - To assess the present condition of the tree and hedge vegetation on these lands. See 'Appendix 2' of this report for details of our assessment and drawing (No. TCL-P3-001) which has been prepared as a tree constraints plan to aid the design team in the design of the development master plan for these lands.

B - To assess the impact of the proposed development layout on the tree and hedge vegetation located within the site area indicating those for removal and retention. See 'Section 5.0' and 'Drawing No.TCL-P3-001' for detail.

C - To show on this drawing the position of the line of protective fencing that needs to be erected and other tree protection measures that will need to be put in place around the trees to be retained at the very start of the works and be maintained until all construction works are complete. See 'Section 6' and 'Appendix 1' of this report and drawing (No.TCL-P3-002) for detail.

2.0 Report Limitations

2.1 The inspection has been carried out from ground level only and is a preliminary report. It does not include climbing inspections or below ground investigations. Should a more detailed inspection be thought necessary on any tree/s, then this will be highlighted within my recommendations.

2.2 The assessment is based on what was visible at the time and recommendations made are subject to the knowledge and expertise of the qualified Arboriculturist that carried out the above inspections.

2.3 Trees should be inspected on a regular basis as their health and condition can change rapidly due to biotic and abiotic agents. The recommendations within this report are valid for a 12-month period only and this may be reduced in the case of any change in conditions to or in the proximity of the trees.

2.4 Before undertaking any work to these trees, it would be advisable to check whether there is any planning or tree preservation controls in operation, if they are it will then be necessary to obtain consent before undertaking any works (pruning or felling).

3.0 Aims and Report Brief

3.1 The Arboricultural data which is presented within the attached tree schedule (see Appendix 2), has been recorded in line with BS 5837:2012. The tree survey was

conducted by collecting and assessing the following information on all significant trees located on site and plotted onto the land survey map provided.

- Tree Number (metal tags attached to each tree).
- Tree species both common and botanical.
- Dimensions (Trunk diameter, height, crown spread and crown clearance).
- Age Class
- Physiological Condition
- Structural Condition
- Preliminary Recommendations
- Estimated remaining contribution within their present environment
- Retention category

3.2 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** – including 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 tree's 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, commemorative value.

3.3 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 summaries each of the categories:

Category U – Those trees in such a condition that any existing value would be lost within 10 years. Most of these will be recommended for removal for reasons of sound Arboricultural Practice/ Management.

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.

Any category 'U' trees within this site area have been identified on our drawings (Nos.TCL-P3-001 & TCL-P3-002) 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 trees would be seen as having the potential to contribute to the tree cover of these grounds for the long-term.

Any category 'A' trees within this site area have been identified on our drawings (Nos.TCL-P3-001 & TCL-P3-002) with a 'Green' donut around their trunk positions.

Category B – Trees of moderate quality/value with a minimum of 20 years life expectancy. These trees would be seen as having the potential to contribute to the tree cover of these grounds for the medium-term.

Any category 'B' trees within this site area have been identified on our drawings (Nos.TCL-P3-001 & TCL-P3-002) 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 and they should not be seen as a considerable constraint on the development of these lands. Where viable, they should be retained.

Any category 'C' trees within this site area have been identified on our drawings (Nos.TCL-P3-001 & TCL-P3-002) with a 'Grey' donut around their trunk positions.

3.4 The bulk of the trees have been plotted onto the attached drawing (Dwg. No.TCL-P3-001) by the land survey company and where not, they have been positioned to the best of our ability. The tree reference 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 detailed above and recommended by BS 5837 2012.

The constraints for each tree were worked out as per the formulas in BS5837 2012 and have been shown on this drawing using an 'Orange Circle' to aid the design team in their final development layout to ensure tree vegetation proposed for retention is retained successfully. The Root Protection Area (RPA) is the minimum area around individual trees to be protected from disturbance during construction works and is 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, open 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 Summary of Survey Findings

4.1 The site area forms part of the Tubber Lane Development Area at Adamstown, Lucan, Co. Dublin and it has a site area of 9.95ha. It consists of an irregular shaped site and is accessed via Tubber Lane Road to the north. The site is bounded to the north by Tubber Lane Road, to the east it is bordered by lands currently under development and to the south and west the site is bounded by agricultural lands in tillage.

4.2 The site boundaries consist mainly of field hedgerows with some security fencing in places and the hedge species consists mainly of Hawthorn, Blackthorn, Elder, Bramble and Dogrose with Ash, Oak, Elm and Sycamore trees forming the upper canopy formation, mostly as individuals protruding up over the hedges. The hedges are growing on drainage ditch edges and/ or soil banks with past ploughing having come close or within the root zones of the vegetation and this may have caused some soil and surface root damage.

4.3 **The following gives a brief summary of the vegetation around this site area:**

Hedge No.1 runs east to west along Tubber Lane Road and it is a low hedge with relatively good structure as a result of the regular cutting it has received. It is a short section of hedge haven been dissected by the new distributor road and development of lands to its east. There are no trees within this hedge.

Hedge No.2 runs at ninety degrees to Hedge No.1 and extends in a north to south direction along the northern part of sites western boundary. It is located on the west side of a deep wet drainage ditch and it has been heavily cut back in recent times but is now sprouting to form a denser, more structured hedge. Tree Nos.001-0020 are located within this hedge consisting of Oak and Ash and some of these are of relatively good quality.

Hedge No.3 runs at ninety degrees to Hedge No.2 and extends in an east to west direction. It is a short fragmented, poorly structured hedge with the main hedge line located on the north side of the drainage ditch. There are no trees within this short section of hedge.

Hedge No.4 runs at an angle from Hedge No.3 and extends in a north to south direction along the southern half of the western site boundary. It has become fragmented as a result of a section of hedging being lost or removed in the past with a large central section with little or no vegetation with the remnants of the hedgerow bank still present. As a result, the two main sections have been labelled Hedge Nos. 4A and 4B. The vegetation is growing from a soil berm and it has received regular cutting back. Tree Nos.0021-0026 are located within this hedge and these are all Ash with the exception of one tree (No.0022) which is a Sycamore and these trees are considered of low quality. These trees would have had ploughing come in tight to their bases over the years and this would have caused surface soil and root damage.

Hedge No.5 runs at an angle from Hedge No.4B and extends, generally, in an east to west direction along the southern boundary of the site area with the main hedge line located on the adjoining land side of a wet drainage ditch/stream with some hedge vegetation allowed to establish on the site side. This hedge has been allowed to grow unmanaged for some time and has become tall and has encroached out on the fields on either side to create a broader hedge. This hedge has been bisected by the construction of the distributor road to create Hedge Nos.5A & 5B. Tree Nos.0027-0055 are located within this hedge consisting of a mix of mainly Ash and Oak with some Sycamore and Elm and some of these are of relatively good quality. The bulk of these trees are located on the southern side of the wet ditch/stream which cordons them off from the site area.

Hedge Nos.6 runs at ninety degrees to Hedge No.5B and extends along the very southern part of the sites eastern boundary. It has hedge vegetation growing on both sides of the deep drainage ditch and it has been trimmed back on the site side, although allowed to grow up tall. There are no trees within this hedge.

Hedge No.7 runs at an angle to Hedge No.6 and extends along part of the eastern boundary of the site area. It also has hedge vegetation growing on both sides of the deep drainage ditch and it has cut back in recent times to address encroachment on the site lands which has helped to improve its structure. Tree Nos.0056-0061 all Ash are located within this hedge and these are generally of low quality with some having physiological and structural issues.

Hedge No.8 extends at an angle to Hedge No.7 and extends northwards along the eastern boundary and extends outside the site area. The main hedge line is located on the eastern side of a deep drainage ditch which cordons off this hedge from the site area although some hedge vegetation has been allowed to establish on the site side of this drainage ditch. Tree Nos.0367-0370 are located within this hedge line and consist of Ash which protrude above the hedge height, generally of low quality. This hedge has been bisected by the construction of a local access road through this hedge and the development of the surrounding lands to the north and east.

Hedge No.9 is a small remnant of a field boundary hedge which extended out at an angle from Hedge No.7 & 8. The northern section of this hedge has been removed to facilitate the development of these lands and the creation of the local access road which bisected this hedge. The hedge has been allowed to grow unmanaged in recent years and it contains no trees of significance.

Hedge No.10 runs north to south on the boundary between two fields within the site area and is the remnant of a long hedge that has been bisected by the local access road and the development of the lands to the north. It is growing on the western side of a deep drainage ditch and had been cut back previously into a low hedge. Tree Nos.1342-1344 all early-mature Oak protrude up over the height of this hedge and these are considered low quality trees.

4.4 Within this site area, 68No. Trees were tagged individually and 10 No. Hedges have been numbered numerically.

The following table gives a breakdown of their category grading:

Category Grade	Tree No.
Category U **7 Trees**	**Tree Nos.** 0002, 0049, 0056, 0058, 0059, 0060 & 0370
Category A **6 Trees**	**Tree Nos.** 0006, 0007, 0034, 0052, 0053 & 0054
Category B **15 Trees**	**Tree Nos.** 0001, 0003, 0004, 0008, 0009, 0013, 0014, 0015, 0016, 0018, 0020, 0044, 0046, 0050 & 0055
Category C **40 Trees** **+ 10 Hedges**	**Tree Nos.** 0005, 0010, 0011, 0012, 0017, 0019, 0021, 0022, 0023, 0024, 0025, 0026, 0027, 0028, 0029, 0030, 0031, 0032, 0033, 0035, 0036, 0037, 0038, 0039, 0040, 0041, 0042, 0043, 0045, 0047, 0048, 0051, 0057, 0061, 0367, 0368, 0369, 1342, 1343 & 1344 **Hedge Nos**. 1, 2, 3, 4, 5, 6, 7, 8, 9 & 10
Total	**68 Trees + 10 Hedges**

5.0 Arboricultural Implication Study

5.1.0 Introduction

5.1.1 Brief development description:

Hugh McGreevy & Sons Ltd and Tierra Ltd, intend to apply for full planning permission for development on a site area located in the Tubber Lane Development Area within Adamstown SDZ, Adamstown, Lucan, Co Dublin. The application site is located to the south of Tubber Lane, in the north-west of the Adamstown SDZ lands and to the west and south west of the permitted / under construction Tubber Lane Phase 2 development (Reg. Ref.: SDZ19A/0008, as amended under Reg. Ref.: SDZ20A/0014).

The development will comprise of 455 No. residential units (including a mixture of 2-4 storey blocks), new internal roads and footpaths, site access, public open space, car parking, cycle stores, landscaping, bin stores, foul and surface water drainage, boundary walls and fences, ESB substations and all associated site development works. Private and semi-private open space to serve the proposed units will be provided in the form of balconies, terraces and gardens.

The development also includes the provision of the finishing course to part of the Celbridge Link Road (part of Loop Road 3), permitted under Reg. Ref.: SDZ17A/0009, from the junction with Adamstown Avenue to the southern site boundary, and associated revisions to provide access to the development, parallel parking bays, and public lighting.

5.1.2 This section of the 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 vegetation shown for retention free from adverse impacts for the duration of the construction period.

5.1.3 On drawing No.TCL-P3-002, 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.

5.1.4 On this drawing (No.TCL-P3-002), I have also shown 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 such as ground protection at the start of the works and this will need to be maintained in place until all works are completed.

5.1.5 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 based on the information provided by us in the initial condition tree assessment of the site area and the creation of the tree constraints plan (DWG No.TCL-P3-001). Based on this information and approach, changes have been made in the layout of the proposed development to ensure the tree and hedge vegetation of most value to the treescape of this area are retained and incorporated successfully into the completed development.

5.3.0 Tree Loss

5.3.1 **To facilitate the proposed development, it is necessary to remove the following vegetation:**

Category Grade	No. of trees for removal
Category U **7 Trees**	**Tree Nos.** 002, 0049, 0056, 0058, 0059, 0060 & 0370 Apart from Tree No.002, the remaining trees are being recommended for removal as part of management and are not directly impacted by the proposed development layout. In consultation with the project ecologist, some of these could be left as high stumps (monoliths) for wild life value.
Category A **0 Tree**	**No Trees -**
Category B **3 Trees**	**Tree Nos.** 001, 003 & 004
Category C **6 Trees +** **c.149m of Hedging**	**Tree Nos.** 0028, 0047, 0048, 1342, 1343 & 1344. Hedge No.1 (c.35m), Hedge No.2 (c.35m), Hedge No.9 (c.22m) & Hedge No.10 (c.57m).

5.3.2 **In summary**, 16 (23.5%) of the 68No. individually surveyed trees included within this assessment along with c.149m of hedging which is approximately 14% of all hedging on this site area will need to be removed to facilitate the proposed development works on this site area or as part of management.

The 17 No. Trees for removal are made up of the following category grades

- 7 Category 'U' trees = 100%
- 0 Category 'A' trees = 0%
- 3 Category 'B' trees = 20.0%
- 6 Category 'C' trees = 15.0%

The loss of the above tree vegetation is to be mitigated against within the landscaping of this completed development with new tree, shrub and hedge planting that will complement the development and will help provide good quality

and suitable long-term tree cover. See landscape architects drawings and schedules for detail.

A range of tree sizes are proposed within the finished landscape ranging from whips to semi- mature trees and as these establish and grow in size, they will be continuously mitigating any negative impacts created in the first place and will enhance and secure the treescape of this area into the future.

5.3.3 The approach taken in the development of this site area has seen as much of the existing tree and hedge vegetation as possible retained within the proposed layout, and in particular those of most value to the treescape of the greater area where it helps to screen and blend the proposed development into its surrounds.

5.3.4 As part of the management of the tree and hedge vegetation retained, it will be necessary to carry out remedial tree surgery works to address current health and safety issues and to ensure a satisfactory juxtaposition within the completed development. A preliminary schedule of these works is given within the condition tree survey report within (Appendix 2 of this document) and this will need to be updated taking into consideration the trees within their new built environment and this will be prepared for agreement with the local authority prior to the tree works being carried out. All tree works will need to be carried out by a competent tree surgery firm to the recommendations of BS3998 2010.

The future management of the existing mature trees will see a need for them to be reviewed on a regular basis and any necessary remedial tree surgery works required will need to be carried out to address health and safety which is similar to the current environment that they are growing in.

The hedgerows retained around this development will also need some trimming from time to time to ensure a satisfactory juxtaposition is achieved and that they don't encroach out to obstruct paths or other surfaces

The new tree planting added as part of the landscaping of this completed development will require ongoing maintenance particularly for the first number of growing seasons to ensure that they establish successfully and this will need to include watering during periods of dry weather/drought and management of weed vegetation. Once established, they will need further management to address health and structural issues as they arise and to ensure satisfactory inclusion within the surrounding landscaped development. This will also need to include the adjustment of tree ties and planting stakes as the trees grow, and the removal of these tree ties/stakes where no longer required and the pruning of their crowns to ensure a satisfactory juxtaposition within their landscape environment. The under planting of shrubs and hedging will also require similar maintenance to ensure their successful establishment and incorporation into the landscape areas.

5.4.0 Tree Retention and Protection

5.4.1 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 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 within 'Appendix 2' of this report and these are to be reviewed on site prior to being carried out. The hedges being retained in most instances will require trimming to bring them back into active management and to incorporate them into the completed landscaped development. This will involve trimming in of their sides, particularly excessive spread of vegetation especially Bramble and the poorer structured sections will need trimming/pruning to address stability issues. The objective of the trimming of the hedges is to help rejuvenate them with the encouragement of lower growth development and once trimmed back; there will be an opportunity to augment poor quality sections with new hedge planting to create better structured sustainable hedges for the future suitable for their new built urban environment. All tree felling and pruning work will need to 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.* All trees for removal will need to be felled to stumps and all stumps in particular those which are located within the root zone of trees being retained will need to be ground out using a mechanical stump grinder taking care not to cause root damage to the trees being retained.
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.TCL-P3-002) 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 British Standard BS5837: *Trees in relation to design, demolition and construction (2012)* specifies appropriate fencing, see 'Appendix 1' for details.

Item	Comments
	This 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. All weather notices will need to 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 authorized 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 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 and section 6.8 of this report for detail on such installation. For light access works within 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 project engineers and installed to their recommendations. See detail in 'Appendix 1' of this report for sample. 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. Materials, which can contaminate the soil, e.g. concrete mixings, diesel oil and vehicle washings, cannot be discharged within 10m of a tree stem.

Item	Comments
	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. 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.
Services	See project engineer's drawings for detail for service routes. From my understanding of the service drawings provided to me for assessment, there should be no conflict between these and the tree vegetation proposed to be retained. There is sufficient area on site to adjust or re-route the proposed services without a need to encroach into the root zone of the trees vegetation being retained. Prior to the installation of any services routed near trees to be retained, 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.
Boundary Treatments	It is my understanding that any boundary treatments where necessary along by the tree vegetation being retained will be of a fence type structure where there will only be a need to excavate small diameter holes for the fence uprights and these will need to be dug manually or with an augur with no machinery allowed to operate within the work exclusion zones fenced off by the tree protection fencing. The working ground area 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.
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. **Paths** - In a number of areas, there are paths which meander

Item	Comments
	into the marked out root zones of the trees being retained and the position of these will need to be reviewed once marked out on site to look at altering their position to avoid the root zones in the first place and if this is not possible, then the sections of these paths which encroach in on the root zone of the trees will need to be installed using a No-Dig method and if necessary incorporate a product such as 'CellWeb' to provide support and to protect the underlying rooting material. See section 6.8.0 of this report for general detail on the installation of such surfaces.

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 advise 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 (Drawing No. TCL-P3-002) 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 contractor/site manager on how the trees to be retained are 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 trees proposed for retention. See drawing (DWG No. TCL-P3-002), 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 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.TCL-P3-002.

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 fencing detail 1 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. TCL-P3-002 & 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 and Working Areas

6.8.1 The ground protection is to take the form of a product such as 'CellWeb' 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 Fibertex F4M non-woven geotextile with dry joints overlapping by 300mm.

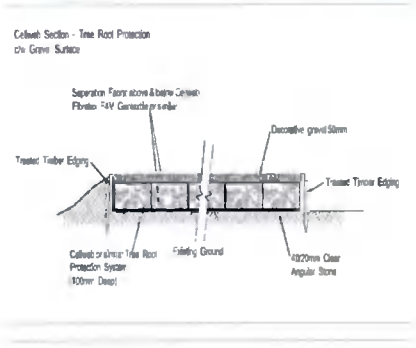
Step 3 – Place constraints along the edges to contain the fill material. These can be of such material as treated timber or railway sleepers.

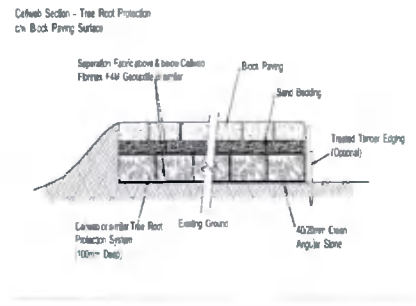
Step 4 – Place the required cellular confinement system (Cell Web150-200mm) over the geotextile and pin/anchor the cell walls open for infilling.

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 'CellWeb'. 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 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.

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

The excavations 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 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 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.

6.9.3 **Working within the RPA** *(Root Protection Area)* – If it becomes necessary to carry out works within the RPA of a tree 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.

6.9.4 **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 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.

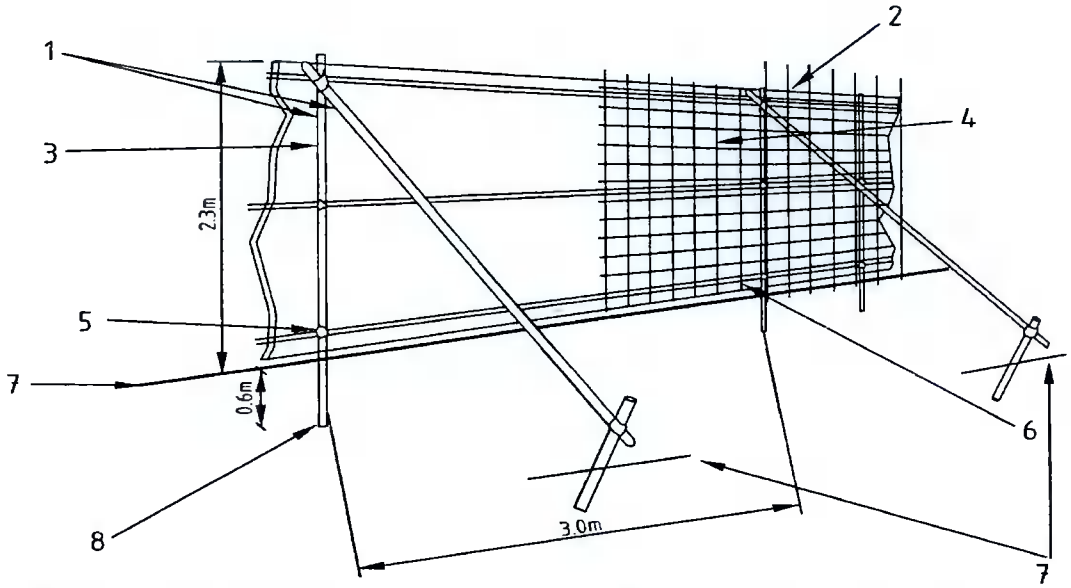
Signed Felim Sheridan Date 7th December 2021

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).

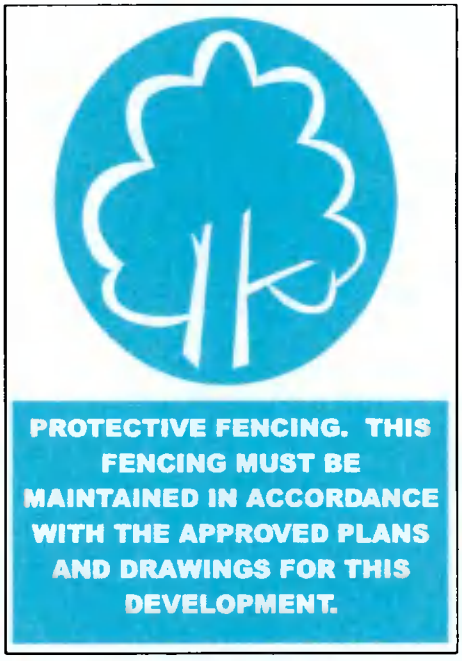
Appendix 1

Sample of Temporary Tree Protection Fencing and Ground Protection Detail.



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



Sample of signage to be placed on fence pannels.

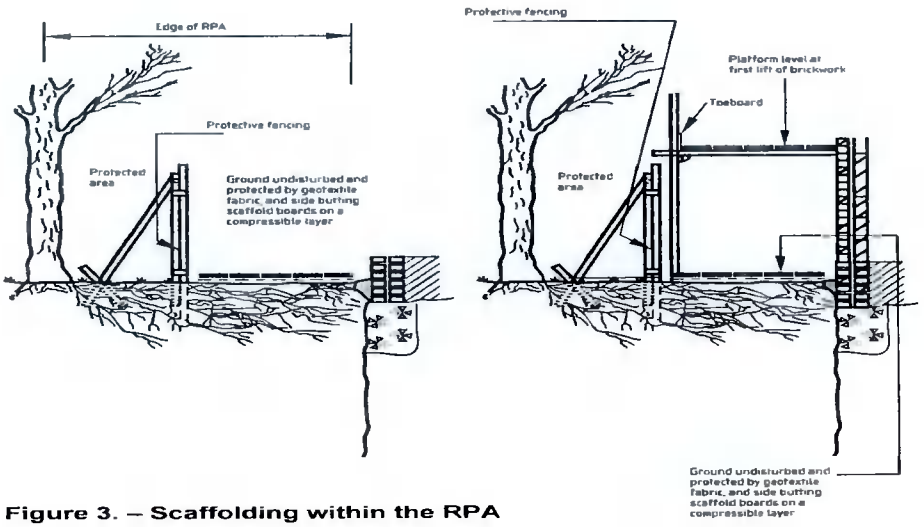
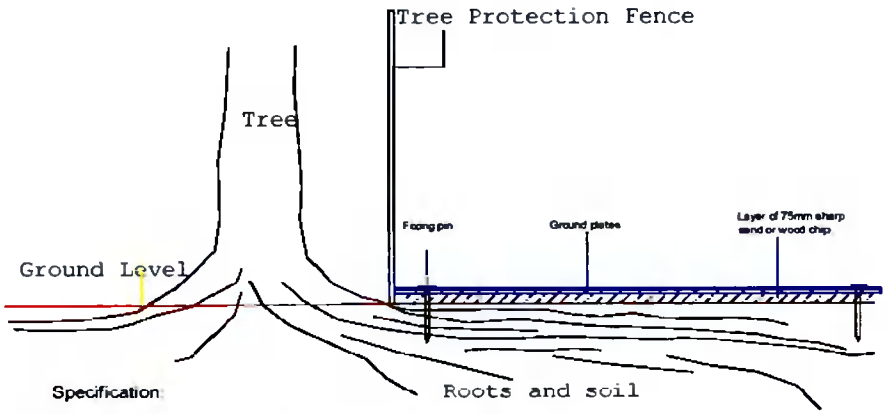


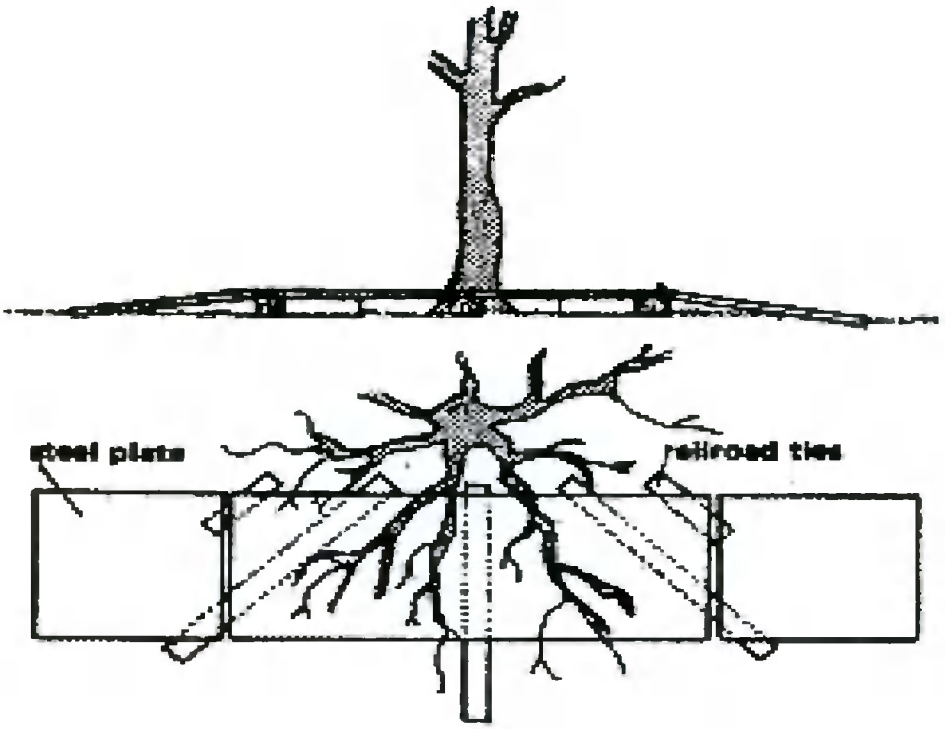
Figure 3. – Scaffolding within the RPA



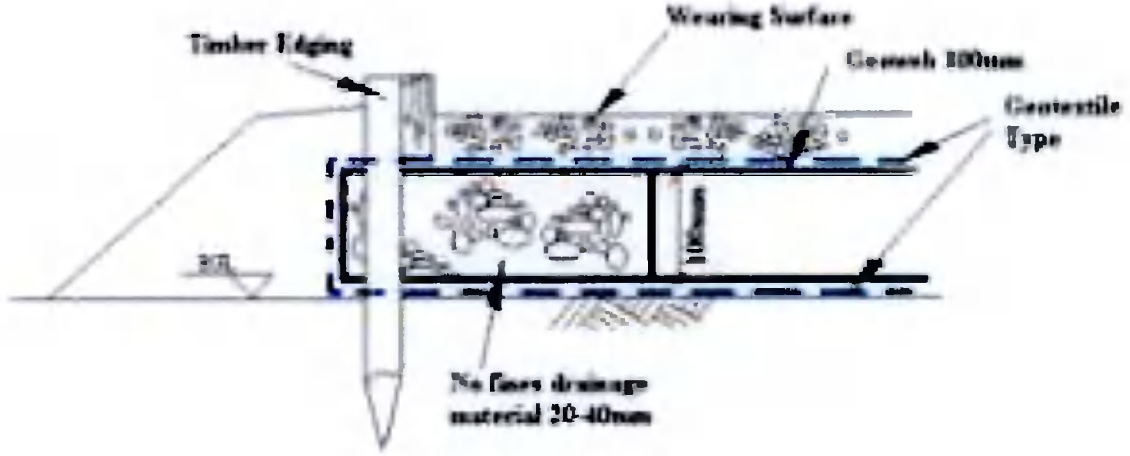
1. Lay min. 75m depth of sharp sand/wood chip over identified ground area
2. Lay side-butting scaffold boards/15mm poly propylene road plate over sand/wood chip
3. Fix ground protection cover into place with pins/pegs

Example of use of steel/road plates over root area.

Example of use of steel/road plates over root area.



Cellular confinement system such as Cellweb to protect root zone.



Appendix 2

Condition Assessment for the Tree and Hedge Vegetation on the Site Area for 'Tubber Lane- Phase 3' Residential Development at Adamstown, Lucan, Co. Dublin.

Date: 16th March 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 defective 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 Useful Life Expectancy (ULE) 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 millimetres (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)

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con**.= Physiological Condition	**C-Ht**= Crown Height **Stem Dia**.= Stem Diameter		
		A Condition Assessment of the trees located within the site area for 'Tubber Lane' (Phase 3) Residential Development at Adamstown, Lucan, Co. Dublin.									
Hedge No.1	**Hawthorn** *Crataegus monogyna* **Blackthorn** *Prunus spinosa* **Elder** *Sambucus nigra* **Bramble** *Rubus fruticosus* **Dogrose** *Rosa canina*	**It runs in a north-south direction along the roadside boundary and is located on the field side (east side) of a deep drainage ditch.** It is of a mature age class in fair condition both physiologically and structurally. It is a low formal hedge and has been cut regularly, helping to maintain its stock proof quality and structure. It consists of Hawthorn, Ash and Blackthorn with Bramble, Dogrose and Elder. **Average Height**: 2m; **Average Width**: 2m								Continue present maintenance.		C2
Hedge No.2	**Hawthorn** *Crataegus monogyna* **Blackthorn** *Prunus spinosa* **Holly** *Ilex aquifolium* **Bramble** *Rubus fruticosus* **Dogrose** *Rosa canina* **Privet** *Ligustrum vulgare* **Goat Willow** *Salix caprea*	**It runs at ninety degrees to Hedge No. 1 and runs in a north to south direction on the boundary of the site lands and forms the boundary between two fields.** It is of a mature age class in fair condition both physiologically and structurally. It has been cut back heavily in recent times and is now sprouting and forming a denser, more structured hedge. It is located on the west side of a deep wet drainage ditch. The main hedged species include Hawthorn, Blackthorn, Goat Willow, Privet, Elder and Holly. Bramble and Dogrose are dominating the lower vegetation and are encroaching out in some places. I suspect that arable farming/ ploughing has been carried out on the west side and ploughing has come in close to this hedge in the past. There are a number of individual Hawthorns within this hedge that have been allowed to grow up tall. **Average Height**: 2m; **Average Width**: 2.5m **The following trees are located within Hedge No.2.** Working in a west to east direction.								It would benefit from some infill planting in places. Continue ongoing maintenance in order to establish a good structured hedge.		C2
0001	**Oak** *Quercus robur*	8	160/ 150/	N4 S2	3	Early Mature	Fair/ Good	Fair It forms part of the group canopy formation	Requires no work at the present time.	20+	B2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con**.= Physiological Condition	**C-Ht**= Crown Height **Stem Dia**.= Stem Diameter		
			410	E4 W3				with a slightly asymmetrical crown as a result. The lower branches have been broken off in the past in order to raise up its crown. There are two secondary stems developing from its base. There is light Ivy cover on the main stems.			
0002	**Oak** *Quercus robur*	18	460/ 210/ 220	N4 S4 E5 W4	3	Early Mature	Fair	Fair / Poor It is multiple-stemmed from base and it is evident that some stems have been cut back in the past. One of the main stems splits at a height of c.1m up with an acute union formation and it is splitting apart, creating a structural weakness at this point. As a result, it may be prone to failure. It forms part of the group canopy formation with tree No. 001. Light Ivy cover on the main stems is extending up into its crown.	Cut/ coppiced back into the hedge line as part of management and allow the stump to sprout to form part of the hedge bulking.	<10	U
0003	**Ash** *Fraxinus excelsior*	8	220	N4 S2.5 E4 W4	3	Early Mature	Fair	Fair It is multiple-stemmed from base with an acute union formation between some stems. It forms part of the overall group canopy formation. The lower branches have been cut back/ broken off in order to raise up its crown. There is light Ivy cover on the main trunk.	Requires no work at the present time.	20+	B2
0004	**Oak** *Quercus robur*	9	360/ 240	N2 S3 E5 W4	3	Early Mature	Fair	Fair It forms part of the group canopy formation with Tree No. 003 with a slightly asymmetrical crown as a result. It has been left open/exposed by the cutting back of the hedge. There is light Ivy cover on the main	It may require works to address exposure issues.	20+	B2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con.**= Physiological Condition	**C-Ht**= Crown Height **Stem Dia.**= Stem Diameter		
								trunk. The lower branches have been broken back in order to raise up its crown.			
0005	**Oak** *Quercus robur*	9	260/ 210/ 220/ 340	N4 S3 E4 W4	3	Early Mature	Fair	Fair/ Poor It is multiple-stemmed from low down with an acute union formation between stems with included bark present, creating a structural weakness and some stems may be prone to breaking out as a result. The lower branches have been pruned/ broken off in order to raise up its crown.	Cut/ coppice into the hedge and retain as part of the hedge bulking.	10+	C1
0006	**Oak** *Quercus robur*	12	600/ 300	N6 S5 E7 W6	3	Early Mature	Fair/ Good	Fair/ Good It is reasonably well structured and is a good quality tree with a broad spreading crown formation. The lower branches have been pruned/ broken off in order to raise up its crown. There is light Ivy cover on the main trunk.	Remove large size dead/ unstable growth and prune stubs back to proper target pruning points.	40+	A1
0007	**Oak** *Quercus robur*	11	720	N4 S5 E7 W5	3	Mature	Fair/ Good	Fair/ Good It is single-stemmed from base with Ivy cover on the main trunk beginning to extend up into its crown. It has suffered branch breakage in the past and this has opened up its crown. There are stubs remaining where lower limbs/ branches have been broken off in the past.	Remove large size dead/ unstable growth and prune in exposed side branches to address exposure issues and to reshape its crown. Prune stubs back to proper target pruning points. Cut Ivy at ground level.	40+	A1
0008	**Ash** *Fraxinus excelsior*	11	280	N4 S6 E5 W4	3	Early Mature	Fair/ Poor	Fair It is multiple-stemmed from base with an acute union formation between stems with some included bark present. It contains deadwood in crown and there is light Ivy cover on the	Remove dead/ unstable growth and prune in heavy, exposed side branches by c.1-2m.	20+	B1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con**.= Physiological Condition	**C-Ht**= Crown Height **Stem Dia.**= Stem Diameter		
								main trunk. The lower branches have been pruned/ broken off in order to raise up its crown.			
0009	**Oak** *Quercus robur*	8	360/ 300/ 480	N4 S4 E5 W4	3	Early Mature	Fair	Fair It forms part of an open tree line. It is multiple-stemmed from base with an acute union formation between stems and some limbs have been cut back/ broken off in the past in order to raise up its crown. Heavy Ivy cover on the main trunk is beginning to extend up into its crown.	Remove dead/ unstable growth. Cut Ivy at ground level.	20+	B1
0010	**Oak** *Quercus robur*	8	390	N4 S2 E3 W3	4	Early Mature	Fair/ Poor	Fair/ Poor There is some decay present at its base. The lower branches have been cut off in order to raise up its crown.	Retain as part of the hedge bulking.	20+	C2
0011	**Oak** *Quercus robur*	9	260/ 360	N2 S3 E5 W3	2	Early Mature	Fair	Fair It is multiple-stemmed from base with an acute union formation between stems. One stem has been cut back as part of the hedge cutting leaving a stump. Ivy cover on the main trunk is beginning to extend up into its crown.	Prune branch stubs back to proper target pruning points. The Ivy will require management in the short-term.	20+	C2
0012	**Beech** *Fagus sylvatica*	11	220/ 120/ 360/ 360/ 400	N6 S2 E7 W5	3	Early Mature	Fair	Fair/ Poor It is multiple-stemmed from base with some basal decay and the fungus 'Ganoderma sp.' is present. There is an acute union formation between stems and this may have a knock-on effect on its long-term potential. It forms part of the group canopy formation. The lower branches have been cut back in order to raise up its crown.	Requires no work at the present time. Monitor the basal decay.	10-20	C2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con**.= Physiological Condition	**C-Ht**= Crown Height **Stem Dia.**= Stem Diameter		
0013	**Ash** *Fraxinus excelsior*	12	290	N5 S4 E5 W5	3	Early Mature	Fair	Fair It is multiple-stemmed from base and it forms part of an open group. The lower branches have been cut / broken back in order to raise up its crown. Ivy cover on some stems is beginning to extend up into its crown.	Remove dead/ unstable growth. Prune stubs back to proper target pruning points. The Ivy is likely to require management in the future.	20+	B2
0014	**Ash** *Fraxinus excelsior*	11	460	N4 S2 E5 W4	2.5	Early Mature	Fair	Fair It is growing up within a group and is slightly asymmetrical as a result. Ivy cover on the main trunk is beginning to extend up into its crown. The lower branches have been cut / broken off in order to raise up its crown. It subdivides into a twin-stemmed tree from a height of c. 1.6m up with a slightly acute union formation between stems.	Make safe dead/ unstable growth. The Ivy is likely to require management in the short-term.	20+	B2
0015	**Sycamore** *Acer pseudoplatanus*	13	260	N2 S2 E4 W3	3	Early Mature	Fair	Fair It is multiple-stemmed from base and is growing up forming part of a group with an acute union formation between stems. Some of the smaller secondary stems and lower branches have been cut / broken off in order to raise up its crown.	Prune stubs back to proper target pruning points.	20+	B2
0016	**Ash** *Fraxinus excelsior*	10	330	N2 S3 E5 W3.5	4	Early Mature	Fair	Fair It was initially twin-stemmed from base and one stem has been cut back to a stump. The lower branches have been pruned/ broken off in the past in order to raise up its crown. Heavy Ivy cover on the main trunk is beginning to extend up into its crown.	Prune stubs back to proper target pruning points and cut Ivy at ground level.	20+	B2
0017	**Oak**	8	440	N1	3	Early	Fair	Fair/ Poor	Cut Ivy at ground level.	10-20	C1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con.**= Physiological Condition	**C-Ht**= Crown Height **Stem Dia.**= Stem Diameter		
	Quercus robur			S0 E4 W3		Mature		Heavy Ivy cover on the main trunk is beginning to extend up into its crown. The lower limbs/ branches have been removed / cut off in the past in order to raise up its crown and this has impacted on its structure.			
0018	**Oak** *Quercus robur*	9	320/ 240/ 360	N4 S4 E5 W3	2.5	Early Mature	Fair	Fair It is twin-stemmed from base with further subdivisions above this point. The lower limbs/ branches have been pruned / broken off in order to raise up its crown. Ivy cover on the main trunk is beginning to extend up into its crown.	Prune stubs back to proper target pruning points. The Ivy will require management in the short-term.	20+	B1
0019	**Oak** *Quercus robur*	5	390	N3 S3 E2 W2	2	Early Mature	Fair	Fair/ Poor One stem has been cut off from base and other side stems have been cut back/ broken to facilitate access to the drainage ditch and this has impacted on its crown structure. Heavy Ivy cover on the main trunk is beginning to extend up into its crown.	Cut Ivy at ground level and prune stubs back to proper target pruning points.	20+	C1
0020	**Oak** *Quercus robur*	11	600	N4 S8 E7 W6	3	Early Mature	Fair	Fair It is of a larger size than the surrounding trees and is prominent within this area. It has a broad spreading crown and has been left more open/ exposed due to branch breakage during the works carried out on the drainage ditch on the east side. Heavy Ivy cover on the main trunk is beginning to extend up into its crown. It subdivides into multiple-stems from low down.	Cut Ivy at ground level and removed dead/ unstable growth. Prune in exposed side branches in order to address exposure and to improve the shape of its crown.	20+	B1
Hedge	**Hawthorn**	**It runs at ninety degrees to Hedge No. 2 and runs in an east to west direction.**							Cut back the hedge in order to stabilize		C2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con**.= Physiological Condition	**C-Ht**= Crown Height **Stem Dia.**= Stem Diameter		
No.3	*Crataegus monogyna* **Holly** *Ilex aquifolium* **Bramble** *Rubus fruticosus* **Dogrose** *Rosa canina* **Goat Willow** *Salix caprea* **Elder** *Sambucus nigra* **Blackthorn** *Prunus spinosa*	It is of a mature age class in fair condition physiologically and in fair/ poor condition structurally. It consists of a few overgrown Hawthorn and Holly bushes with an undergrowth of Bramble, Dogrose, Goat Willow and Elder. The Hawthorn clumps are being suppressed by Ivy and they are tall, top-heavy and prone to storm damage as a result. The main hedge line is located on the north side of the drainage ditch. **Average Height**: 2m; **Average Width**: 2.5m								these large size hedge plants and to improve its structure/ quality. Prune in the hedge species and cut Ivy at ground level where it is heavy to prevent suppression and wind-loading.		
Hedge No.4A	**Hawthorn** *Crataegus monogyna* **Privet** *Ligustrum vulgare* **Elder** *Sambucus nigra* **Bramble** *Rubus fruticosus*	**It runs in a north –south direction and runs at an angle from Hedge No.3.** It is of a mature age class in poor condition physiologically and structurally. It consists of a soil berm with isolated clumps of hedge plants with Hawthorn, Privet and Elder with infill areas of Bramble and large areas with no vegetation. Ploughing has come in tight on both sides to its base and is likely to have caused some soil and root damage, in particular to the trees within. The bulk of this hedge has been regularly trimmed back tight to the soil bank. **Average Height**: 1.5m; **Average Width**: 2m **The following trees are located within Hedge No. 4 and the assessment works from north to south.**								It would benefit from being allowed to grow taller along with some infill planting to create a more structured hedge.		C2
0021	**Ash** *Fraxinus excelsior*	10	440/ 240 260/ 180	N4 S4 E5 W4	2	Early Mature	Fair	Fair It is multiple-stemmed from base with heavy Ivy cover on the main trunk extending up into its crown increasing the wind sail of its crown. It has suffered soil damage caused by the ploughing carried out on the east and west	Cut Ivy at ground level at the present time.	10-20	C1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con**.= Physiological Condition	**C-Ht**= Crown Height **Stem Dia**.= Stem Diameter		
								sides along with root damage caused during the widening of the field entrance on the north-side. The lower branches have been cut/ broken back in order to raise up its crown. Some secondary stems have also been removed.			
0022	**Sycamore** *Acer pseudoplatanus*	11	280/ 260	N1 S2 E3 W2	0	Early Mature	Fair	Fair It is located in isolation with heavy Ivy cover on the main trunk extending up into its crown. It forms a twin-stemmed tree from c. 1.2m up with suckers growing from its base that had been kept cut in the past. Soil and root damage has occurred on the east and west side due to ploughing.	Cut Ivy at ground level at the present time.	20+	C1
0023	**Ash** *Fraxinus excelsior*	14	380 (3 stems)	N5 S5 E8 W4	2	Mature	Fair	Fair / Poor It is located in isolation and is beginning to be heavily suppressed by Ivy. The lower limbs/ branches have been cut/ broken back in order to raise up its crown. It would have been impacted upon by the ploughing carried out on the east and west sides. There are areas of basal decay present and this may have an impact on its stability.	Remove dead/ unstable growth and prune in heavy exposed side limbs/ branches to address exposure and to balance its crown. Tidy up the area around its base and remove lower Ivy to allow a more detailed assessment of its base and lower trunk. It may require further remedial works, subject to its retention within a developed	10-20	C1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con**.= Physiological Condition	**C-Ht**= Crown Height **Stem Dia**.= Stem Diameter		
									area.		
0024	**Ash** *Fraxinus excelsior*	11	460/ 280	N5 S5 E5 W5	2	Mature	Fair	Fair It is a prominent tree located in isolation on a hedgerow bank. Heavy Ivy cover on the main stems is beginning to extend up into its crown. Multiple-stemmed from low down with an acute union formation between some stems. The ploughing has come tight on the east and west sides causing some soil and root damage. The lower branches have been cut back/ broken off in the past in order to raise up its crown over the field. Ivy cover on the main trunk is beginning to extend up into its crown.	Tidy up the undergrowth at the present time. The Ivy will require management in the future.	10-20	C1
Hedge No.4B	**Hawthorn** *Crataegus monogyna* **Blackthorn** *Prunus spinosa* **Elder** *Sambucus nigra* **Bramble** *Rubus fruticosus* **Dogrose** *Rosa canina* **Ash** *Fraxinus excelsior* **Goat Willow** *Salix caprea*	**It extends along the southern end of Hedge No. 4A and forms the boundary between two fields.** It is of a mature age class in fair condition physiologically and structurally. It consists of Hawthorn, Blackthorn, Elder, Bramble, Dogrose and Ash. It has been cut down in recent times to a height of c. 1.5m and has also been cut in the past which has helped to maintain its stock proof quality. **Average Height**: 2m; **Average Width**: 2m **The following trees are located within Hedge No. 4B.**								Trim in sides to contain width and continue maintained.		C2
0025	**Ash** *Fraxinus excelsior*	11	280	N5 S5 E5 W4	3	Mature	Fair	Fair It is multiple-stemmed from low down and other side limbs/ branches have been cut/ broken off in order to raise up its crown over	Cut Ivy at ground level at the present time.	10-20	C1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con**.= Physiological Condition	**C-Ht**= Crown Height **Stem Dia.**= Stem Diameter		
								the field. There are some decay wounds present where limbs have broken out in the past. The ploughing has come tight to its base on both sides and has caused soil and root damage as a result. Heavy Ivy cover on the main trunk is beginning to extend up into its crown.			
0026	**Ash** *Fraxinus excelsior*	16	1100	N6 S8 E9 W7	3	Mature	Fair/ Poor	Fair It is a tall, prominent tree with heavy Ivy cover on the main trunk beginning to extend up into its crown. It contains deadwood in crown and is showing signs of stress/ decline throughout. It may have been impacted upon by the past soil alterations. The lower branches have been pruned/ broken back in order to raise up its crown.	Remove dead/ unstable growth from within its crown. Monitor its condition on a twelve monthly basis.	10-20	C1
Hedge No.5A	**Hawthorn** *Crataegus monogyna* **Elder** *Sambucus nigra* **Holly** *Ilex aquifolium* **Bramble** *Rubus fruticosus* **Blackthorn** *Prunus spinosa* **Dogrose** *Rosa canina* **Oak** *Quercus robur* **Ash**	**It runs at an angle to Hedge No. 4B and extends in a general east to west direction. It forms the boundary between two fields and the boundary of the site area.** It is of a mature age class in fair condition physiologically and structurally. The main hedgerow line is located on the south side of the drainage ditch with some hedge vegetation establishing on the site side. It consists of Hawthorn, Elder, Holly, Bramble, Blackthorn and Dogrose with large sections being suppressed by Ivy. It has been allowed to grow up tall with little maintenance and is becoming top-heavy in places and is structurally weakened and prone to storm damage as a result. The hedge species are encroaching out in some places due to lapsed management. It consists of vegetation growing on both sides of the drainage ditch, which is wet at this time of the year. **Average Height**: 4m; **Average Width**: 6m							It would benefit from further cutting back/ trimming in order to contain its width and pruning to address structural issues. Cut Ivy at ground level where it is heavy on the hedge plants. Make safe large size dead/ unstable growth.		C2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con**.= Physiological Condition	**C-Ht**= Crown Height **Stem Dia**.= Stem Diameter		
	Fraxinus excelsior **Goat Willow** *Salix caprea*	**The following trees are located within hedge No. 5 and the assessment works from west to east.**									
0027	**Ash** *Fraxinus excelsior*	16	740/ 320	N7 S7 E7 W8	4	Mature	Fair	Fair It is a large size, prominent visual tree. It is twin-stemmed from c.1m up with a slightly acute union formation between stems. It has a broad spreading crown with some heavy scaffold limbs branches and deadwood throughout. Heavy Ivy cover on the main trunk is beginning to extend up into its crown. It is located on the south side of the ditch which is currently wet in front of this tree. The arable farming has come within close proximity on both sides in the past.	Make safe dead/ unstable growth. The Ivy will require management in the short-term.	20+	C2
0028	**Ash** *Fraxinus excelsior*	14	220/ 420	N5 S3 E2 W6	2.5	Mature	Fair	Fair/ Poor It forms part of the group canopy formation with the neighbouring trees to the south. It is located on the north side of the drainage ditch with an asymmetrical crown weighed out to the north with some heavy side branches. It is beginning to be heavily suppressed by Ivy. It is twin-stemmed from base with basal decay present on one of these stems. There is some evidence of infection by 'Bacteria Canker of Ash'.	Remove dead/ unstable growth and reduce its crown size on the field side to the north by c. 2m. Retain as part of the group canopy formation. Cut Ivy at ground level.	10+	C2
0029	**Ash** *Fraxinus excelsior*	13	340	N2 S5 E5 W4	3	Mature	Fair	Fair It is located on the hedgerow bank to the south of the drainage ditch. It is growing up with Tree Nos. 0028 & 0030 and is a tall, sheltered tree. Heavy Ivy cover on the main trunk is	Make safe dead/ unstable growth. Cut Ivy at ground level.	20+	C2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con**.= Physiological Condition	**C-Ht**= Crown Height **Stem Dia.**= Stem Diameter		
								extending up into its crown and is increasing its crown wind sail.			
0030	**Ash** *Fraxinus excelsior*	13	500	N3 S3 E5 W3	4	Mature	Fair	Fair It is located on the hedgerow bank to the south of the drainage ditch. It is a tall tree growing up within a group environment with Tree Nos. 0028 & 0029 and is sheltered within its present group environment. Heavy Ivy cover on the main trunk is extending up into its crown.	Make safe dead/ unstable growth. Cut Ivy at ground level.	20+	C2
0031	**Ash** *Fraxinus excelsior*	13	400	N3 S5 E2 W5	3	Mature	Fair	Fair It is growing up within a group environment with the surrounding trees. It is located on the hedgerow bank to the south of the drainage ditch. Heavy Ivy cover on the main trunk is extending up into its crown and is increasing its crown wind sail. It is sheltered within its present group environment.	Cut Ivy at ground level at the present time.	20+	C2
0032	**Ash** *Fraxinus excelsior*	16	540/ 660	N5 S7 E5 W5	3	Mature	Fair	Fair / Poor It is a large size, prominent tree of value to the overall group canopy structure. It has a large, broad spreading crown with heavy Ivy cover beginning to extend up into its crown. A large scaffold limb has been removed on the south-side in the past with a decay cavity developing into the main trunk/ base from this point. There is another decay pocket on the main stem at a height of c. 2m on the north side and this decay is likely to have an impact on its stability and structure.	Remove dead/ unstable growth and lighten in heavy side limbs/ branches by up to c. 2m. Cut Ivy at ground level. Monitor its structural condition.	10-20	C2
0033	**Ash**	8	260	N3	3	Early	Fair	Fair	Cut Ivy at ground level at the	20+	C1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con**.= Physiological Condition	**C-Ht**= Crown Height **Stem Dia**.= Stem Diameter		
	Fraxinus excelsior			S2 E1 W4		Mature		It is located on the north (site) side of the drainage ditch and the ploughing has come tight on the field side. It is most likely self-seeded into this area. Its crown development/ structure has been slightly affected due to competition/ overcrowding. There is heavy Ivy cover on the main trunk. The lower branches have been cut/ broken off in the past in order to raise up its crown.	present time.		
0034	**Oak** *Quercus robur*	16	800	N7 S8 E10 W7	2	Mature	Fair	Fair It is a large, tall prominent tree with a broad spreading crown formation. It is of value to the group canopy structure and is located on the south side of the hedgerow bank. It contains deadwood in crown with light Ivy cover on the main trunk.	Remove large size dead/ unstable growth. It may require some pruning if left in isolation.	40+	A1/ A2
0035	**Ash** *Fraxinus excelsior*	16	400	N4 S3 E4 W2	6	Mature	Fair	Fair/ Poor It is a tall tree growing up within a group environment and its structure has been affected due to competition. Heavy Ivy cover on the main trunk is beginning to extend up into its crown. It is growing on the southern side of the drainage ditch on the hedgerow bank. Its crown is showing some signs of stress/ decline throughout.	Cut Ivy at ground level at the present time.	10-20	C2
0036	**Ash** *Fraxinus excelsior*	13	380	N4 S1 E5 W2	4	Mature	Fair/ Poor	Fair/ Poor It forms part of the group canopy formation and is a tall tree with an asymmetrical crown as a result. It is being suppressed by Ivy and is located on the hedgerow bank on the south	Cut Ivy at ground level and tidy up the area around its base to allow a more detailed assessment.	10-20	C2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con.**= Physiological Condition	**C-Ht**= Crown Height **Stem Dia.**= Stem Diameter		
								side of the drainage ditch.			
0037	**Ash** *Fraxinus excelsior*	11	340/ 180	N4 S4 E0 W4	1.5	Early Mature	Fair	Fair It is self-seeded and is growing up on the site side (north side) of the boundary ditch. It has an asymmetrical crown due to competition from the neighbouring trees. The lower branches have been cut / broken back in order to raise up its crown over the field on the north side. The ploughing has come tight to its base on the north-side.	Retain as part of the overall canopy bulking. Cut Ivy at ground level.	20+	C2
0038	**Ash** *Fraxinus excelsior*	15	800	N4 S5 E5 W5	5	Mature	Fair/ Poor	Fair / Poor It is a tall tree towering over the height of the hedge. It is located on the south side of the drainage ditch on the hedgerow bank. It forms part of the overall group canopy formation. Basal decay is present with heavy Ivy cover on the main trunk extending up into its crown and increasing its crown wind sail. It is showing some signs of stress/ decline throughout its crown.	Cut Ivy at ground level and tidy up the area around its base to allow a more detailed assessment of its base and lower trunk. It may require further pruning to address its stability, depending on its development.	10+	C2
0039	**Ash** *Fraxinus excelsior*	10	270	N1 S3 E1 W3	3	Early Mature	Fair	Fair It is growing up forming part of the hedgerow tree line canopy. Ivy cover on the main trunk is beginning to extend up into its crown. It is located on the south-side of the drainage ditch on the hedgerow bank.	Retain as part of the bulking within the hedge. Cut Ivy at ground level.	20+	C2
0040	**Ash** *Fraxinus excelsior*	9	200/ 160/ 300	N3 S2 E2 W3	3	Early Mature	Fair	Fair It is multiple-stemmed from base and is self-seeded into this area. It is growing on the north side (site side) of the drainage ditch. It	Cut Ivy at ground level and retain as part of the bulking.	20+	C2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con**.= Physiological Condition	**C-Ht**= Crown Height **Stem Dia**.= Stem Diameter		
								is growing from underneath the canopy of the neighbouring trees with an asymmetrical crown as a result. It is multiple-stemmed from base with heavy Ivy cover on the main stems extending up into its crown.			
0041	**Ash** *Fraxinus excelsior*	10	460	N4 S4 E4 W3	4	Mature	Fair/ Poor	Fair It is located on the southern side of the drainage ditch on the hedgerow bank. Its crown is showing some signs of stress/ decline throughout. It is a reasonably good quality tree structurally. Heavy Ivy cover on the main trunk is extending up into its crown. It is showing signs of stress/ decline throughout its crown, possibly related to Ash dieback.	Cut Ivy at ground level at the present time. Monitor its condition on a twelve monthly basis.	10-20	C2
0042-0043	**Ash** *Fraxinus excelsior*	A. 7.5	A. 190/ 200	A. N2 S1 E2 W2	A. 2	Early Mature	Fair	Fair/ Poor They are self-seeded into this area and are growing on both sides of the fence and out of the drainage ditch. They form part of the higher bulking within this hedge line.	Tidy up the undergrowth at the present time.	20+	C2
0044	**Ash** *Fraxinus excelsior*	12	460	N1 S4 E5 W4	4	Early Mature	Fair/ Good	Fair It is a prominent tree with a reasonably symmetrical crown formation. It is growing within a shallow drainage ditch. Ivy cover on the main trunk is beginning to extend up into its crown.	Requires no work at the present time.	20-40	B1
0045	**Ash** *Fraxinus excelsior*	7	160	N3 S4 E4 W3	2	Early Mature	Fair	Fair It consists of a group of stems growing on both sides of the drainage ditch. Self-seeded into this area and is growing up forming part of the hedge bulking.	Make safe dead/ unstable growth. Tidy up the undergrowth.	20+	C2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con**.= Physiological Condition	**C-Ht**= Crown Height **Stem Dia.**= Stem Diameter		
0046	**Ash** *Fraxinus excelsior*	12	400	N5 S5 E4 W4	3	Early Mature	Fair	Fair It is located on the north side (site side) of a drainage ditch and the surrounding hedge vegetation has been removed in recent times to accommodate the road works, leaving this tree in isolation. It is reasonably well structured. The lower branches have been broken off during the site clearance works. There is light Ivy cover on the main trunk. The ploughing on the site side has come to within c.2m of its base and this may have caused some soil and root damage.	It would benefit from the removal of broken branches. It will require management in the future.	20+	B1
Hedge No.5B	**Hawthorn** *Crataegus monogyna* **Elder** *Sambucus nigra* **Holly** *Ilex aquifolium* **Bramble** *Rubus fruticosus* **Hazel** *Corylus avellana* **Blackthorn** *Prunus spinosa* **Dogrose** *Rosa canina* **Ash** *Fraxinus excelsior* **Oak** *Quercus robur*	**It runs on from Hedge No. 5A and a section has been removed to facilitate the road construction.** It is of a mature age class in fair condition both physiologically and structurally. The main hedgerow line is located on the south side of the drainage ditch and consists of Hawthorn, Elder, Hazel, Holly, Bramble, Blackthorn and Dogrose with large sections being suppressed by Ivy with hedge vegetation also established on the north (site)-side. It has been allowed to grow up tall with little maintenance and is becoming top-heavy in places and is structurally weakened and prone to storm damage as a result. Large sections are being suppressed by Ivy. The hedge species are encroaching out in some places due to lapsed management, in particular the Blackthorn and Hawthorn. It consists of vegetation growing on both sides of the drainage ditch, which is wet at this time of the year. The hedge species on both the north and south sides bordering with the field have been cut back in the past. Soil disturbance has occurred on south side with a berm of soil places within close proximity. **Average Height**: 4m; **Average Width**: 6m **The following trees are located within hedge No. 5B and the assessment works from west to east.**								It would benefit from further cutting back/ trimming in order to contain its width and pruning to address structural issues. Cut Ivy at ground level where it is heavy on the hedge plants. Make safe large size dead/ unstable growth.		C2
0047	**Ash** *Fraxinus excelsior*	14	280/ 180/	N3 S7	3	Mature	Fair	Fair It has been left isolated by the removal of the	Remove dead/ unstable growth and prune its crown	10-20	C2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con.**= Physiological Condition	**C-Ht**= Crown Height **Stem Dia.**= Stem Diameter		
			300/ 340	E5 W3				surrounding hedge for the road works and some soil disturbance has occurred within close proximity and is likely to have caused some soil and root damage as a result. Heavy Ivy cover on the main trunk is extending up into its crown. A lower scaffold limb has been removed in the past. It forms a multiple-stemmed tree from low down. There is a decay wound on the north-side where a large scaffold limb has been removed in the past.	to address exposure. Cut Ivy at ground level.		
0048	**Ash** *Fraxinus excelsior*	11	280	N3 S4 E4 W3	3	Early Mature	Fair	Fair Self-seeded and is growing on the north-side of the drainage ditch. It forms part of the higher bulking within the hedge and is being heavily suppressed by Ivy. It forms a twin-stemmed tree from base and the soil has been piled in around its base during the road construction works.	Cut Ivy at ground level. Pull back the soil within its root soil with care not to cause any further damage.	10-20	C2
0049	**Ash** *Fraxinus excelsior*	12	280/ 280	N4 S4 E3 W1	3	Mature	Fair/ Poor	Poor It is located on the hedgerow bank south of the drainage ditch. It is twin-stemmed from base and is being heavily suppressed by Ivy. Its crown is in declining health with a lot of dieback evident.	Cut/ coppice back into the hedge.	<10	U
0050	**Ash** *Fraxinus excelsior*	13	200	N5 S5 E5 W5	4	Mature	Fair	Fair Multiple-stemmed from base with further subdivisions at a height of c. 1.2m up and it has possibly been cut into the hedge during past management. It has a slightly asymmetrical crown due to competition with	Make safe dead/ unstable growth.	20+	B1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con**.= Physiological Condition	**C-Ht**= Crown Height **Stem Dia**.= Stem Diameter		
								the hedge. The Ivy has been cut at ground level in the past.			
0051	**Ash** *Fraxinus excelsior*	9	220/ 110	N4 S1 E0 W4	3	Early Mature	Fair	Fair It is growing up forming part of the hedge bulking. Its structure has been affected due to competition. It runs along the ground prior to straightening up, indicating towards possible previous root plate movement. It is sheltered within its present group environment.	Cut Ivy at ground level.	10-20	C1
0052	**Oak** *Quercus robur*	13	580	N4 S5 E4 W5	3	Early Mature	Fair	Fair It towers over the hedge with heavy Ivy cover on the main trunk extending up into its crown. The lower branches have been pruned/ broken off in the past in order to raise up its crown.	Cut Ivy at ground level.	40+	A1
0053	**Oak** *Quercus robur*	14	890	N6 S8 E4 W6	1.5	Mature	Fair	Fair It is a large, prominent, visual tree with a broad, spreading crown. Heavy Ivy cover on the main trunk is extending up into its crown and is increasing its crown wind sail. The lower branches have been pruned/ broken off in the past in order to raise up its crown. The ploughing would have come tight on both sides in the past and is likely to have caused some surface soil and root damage.	Remove dead/ unstable growth. Cut Ivy at ground level and remove from ground level to a height of c. 2m to allow a more detailed assessment of its base and lower trunk.	40+	A1
0054	**Oak** *Quercus robur*	14	1200	N6 S7 E9 W7	2	Mature	Fair	Fair It is a large prominent, visual tree with a broad spreading crown. It has suffered storm damage, in particular on the east side. Its crown is being heavily suppressed by Ivy which is increasing its crown wind sail. It	Remove dead/ unstable growth. Cut Ivy at ground level and remove to a height of c.2m to allow a more detailed assessment of its base and	40+	A1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con**.= Physiological Condition	**C-Ht**= Crown Height **Stem Dia.**= Stem Diameter		
								subdivides into a multiple-stemmed crown from low down.	lower trunk.		
0055	**Ash** *Fraxinus excelsior*	17	340	N6 S8 E7 W6	2	Mature	Fair	Fair It is a large prominent, multiple-stemmed tree from low down. The Ivy cover on some stems is beginning to extend up into its crown. It contains deadwood in crown and is possibly infected by 'Bacteria Canker of Ash'.	Make safe dead/ unstable growth. Cut Ivy at ground level where it is heavy.	20+	B1
Hedge No.6	**Hawthorn** *Crataegus monogyna* **Blackthorn** *Prunus spinosa* **Hazel** *Corylus avellana* **Elder** *Sambucus nigra* **Bramble** *Rubus fruticosus* **Dogrose** *Rosa canina*	**It runs at ninety degrees to Hedge No. 5B and extends in a north-south direction.** It is of a mature age class in fair condition both physiologically and structurally. It consists of Hawthorn, Blackthorn, Hazel, Elder, Bramble and Dogrose. The main hedge line would appear to be located on the site side (west side) of the drainage ditch, however, there is vegetation growing on both sides of the ditch. The side of the hedge on the site side, in particular the encroachment, has been trimmed back which has helped to maintain the width of this hedge on the site side and its structure, otherwise it has been allowed to grow up tall. Some sections are being suppressed by Ivy. **Average Height**: 4m; **Average Width**: 5m								Make safe large size dead/ unstable growth. Cut Ivy at ground level where it is heavy.		C2
Hedge No.7	**Hawthorn** *Crataegus monogyna* **Blackthorn** *Prunus spinosa* **Hazel** *Corylus avellana* **Elder** *Sambucus nigra* **Bramble** *Rubus fruticosus* **Dogrose**	**It runs at ninety degrees to Hedge No.6 and extends in an east to west direction.** It is of a mature age class in fair condition both physiologically and structurally. It consists of dense vegetation growing on both sides of the old drainage ditch and the main hedge species include Hawthorn, Blackthorn, Elder, Bramble and Dogrose. Due to lapsed management, Blackthorn, Bramble and other scrub species have encroached out onto the fields on either side, and on the site side it has been trimmed back in more recent times which has helped to strengthen the hedge and to reduce encroachment. The better structured section of the hedge is located on the site side of the drainage ditch, although the main original hedge was possibly located on the adjoining land side. **Average Height** | **Average Width**								Make safe large size dead/ unstable growth. Cut Ivy at ground level where it is heavy.		C2

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con**.= Physiological Condition	**C-Ht**= Crown Height **Stem Dia.**= Stem Diameter		
	Rosa canina	3m		6m							
		The following trees are located within Hedge No. 7.									
0056	**Ash** *Fraxinus excelsior*	13	620/ 200	N3 S3 E3 W4	3	Mature	Poor	Poor It is in declining health with basal decay present and this will impact on its stability.	Cut/ coppice back into the hedge as part of management.	<10	U
0057	**Ash** *Fraxinus excelsior*	13	230	N2 S3 E6 W6	3	Mature	Fair / Poor	Fair It is a large, multiple-stemmed tree from low down. It is growing on the hedgerow bank on the adjoining landside of the drainage ditch. Its crown is showing some signs of stress/ decline with deadwood throughout. Heavy Ivy cover on the main trunk is extending up into its crown.	Make safe dead/ unstable growth. Cut Ivy at ground level. Monitor its condition on a twelve monthly basis.	10+	C1
0058	**Ash** *Fraxinus excelsior*	13	220/ 210/ 230/ 460	N3 S0 E4 W5	4	Mature	Poor	Poor Decline/ dieback is evident throughout its crown. It has suffered limb failure in the past with decay pockets at the old wounds up along the main trunk. Heavy Ivy cover on the main trunk extending up into its crown.	Cut / coppiced into the hedge as part of management.	<10	U
0059	**Ash** *Fraxinus excelsior*	9	360/ 120/ 380	N0 S0 E3 W5	3	Mature	Poor	Poor It is almost completely dead and the top has broken out in the past. Heavy Ivy cover on the main trunk is beginning to suppress its crown.	Cut/ coppice into the hedge as part of management.	<10	U
0060	**Ash** *Fraxinus excelsior*	8	340	N3 S0 E0 W3	3	Mature	Poor	Poor It forms part of the group canopy formation with Tree Nos. 0058 & 0059 with decline/ dieback evident within its upper crown, which is now dead. It is beginning to be suppressed	Cut/ coppiced into the hedge as part of management.	<10	U

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S=** South **E=** East **W=** West **A=** Average **Phys Con.=** Physiological Condition	**C-Ht=** Crown Height **Stem Dia.=** Stem Diameter		
								by Ivy.			
0061	**Ash** *Fraxinus excelsior*	13	420/ 440	N5 S5 E7 W6	3	Mature	Fair/ Poor	Fair/ Poor It is a tall, prominent tree and is multiple-stemmed from low down. Heavy Ivy cover on the main stems is extending up into its crown. There is some basal decay present. Its crown is showing some signs of stress/ decline throughout. Impacts have occurred from the previous soil disturbance around this tree.	Remove dead/ unstable growth from within its crown. Cut Ivy at ground level and remove to a height of c. 2m along with the undergrowth to allow a more detailed assessment of its base and lower trunk. Monitor its condition on a twelve monthly basis.	10+	C1
Hedge No.8	**Ash** *Fraxinus excelsior* **Hawthorn** *Crataegus monogyna* **Elder** *Sambucus nigra* **Bramble** *Rubus fruticosus* **Dog Rose** *Rosa canina*	**It extends at an angle from Hedge No.7 and forms part of a longer field hedgerow extending in a broadly north to south direction beyond the site boundary.** It is of a mature age class and is in fair condition physiologically and structurally. It is growing on the east side of a deep drainage ditch which cordons off the hedge from the site area. It has been allowed to grow in an unmanaged manner and it is encroaching out into the field's area either side. A number of large Ash trees have developed above the hedge line forming an upper canopy layer. Ivy is colonising the crowns of Hawthorn and are beginning to suppress the canopies, leaving them more prone to wind damage. A.3.0 | - | A.2E, A2W | - **The following trees are located within this hedge within the site area.**							It would benefit from trimming to tidy up and contain encroachment. Control Ivy growth where heavy on hedge plants.		C2
0367	**Ash** *Fraxinus excelsior*	10	460	3	3	Mature	Fair	Fair A single stem tree growing on the hedgerow bank. Heavy Ivy growth extends high into the crown, increasing the wind sail and is beginning to suppress the crown. The heavy Ivy cover and undergrowth around the base are limiting the visual assessment. An Elder tree growing at the base has collapsed. There	Cut Ivy at ground level and clear around the base to allow a more detailed assessment of base and lower trunk.	10-20	C1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con.**= Physiological Condition	**C-Ht**= Crown Height **Stem Dia.**= Stem Diameter		
								is a stump of a large tree located to the north which has collapsed / been cut down and this has left this tree more open/ exposed.			
0368	**Ash** *Fraxinus excelsior*	12	A 800	4	3	Mature	Fair	Fair A single stem tree growing on the hedgerow bank. It divides at c.3m into a multi-stem tree with co-dominant stems. Heavy Ivy growth extends high into the crown, increasing the wind sail and is beginning to suppress the crown. The heavy Ivy cover and undergrowth around the base are limiting the visual assessment. Construction works have encroached on the east side and may have impacted the root zone.	Cut Ivy at ground level and clear around the base and lower trunk to allow a more detailed assessment. Review again in twelve months.	10-20	C1
0369	**Ash** *Fraxinus excelsior*	12	400/ 800	3	3	Mature	Fair	Fair It is growing on the hedgerow bank and it divides at c.1.5m into a twin. The larger stem divides again almost immediately with an acute union formation between the stems. Heavy Ivy growth extends high into the crown, increasing the wind sail and limiting the visual assessment. Construction works have encroached on the east side and may have impacted the root zone.	Cut Ivy at ground level and clear around the base to allow a more detailed assessment. Review again in twelve months.	10-20	C1
0370	**Ash** *Fraxinus excelsior*	10	A 600	3	2	Mature	Fair/ Poor	Poor It is growing on the hedgerow bank with a distinct lean to the east and it appears to have heaved at the base in the past and there is an extensive area of decay at the base on the west side giving rise to concerns over its	I would recommend **removal** as part of management.	<10	U

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con**.= Physiological Condition	**C-Ht**= Crown Height **Stem Dia**.= Stem Diameter		
								stability. Very heavy Ivy growth extends high into the crown, increasing the wind sail and limiting the visual assessment. Construction works have encroached on the east side and may have impacted the root zone.			
Hedge No.9	**Hawthorn** *Crataegus monogyna* **Ash** *Fraxinus excelsior* **Bramble** *Rubus fruticosus* **Dog Rose** *Rosa canina*	**This hedgerow forms a spur out to the west from Hedge Nos. 7&8 and would originally formed part of a larger hedgerow extending off to the north.** It is of a mature age class and is in fair/poor condition physiologically and structurally. It has been allowed to grow in an unmanaged manner and has begun to encroach out into the field area. It consists of hedge remnants of Hawthorn and Ash with heavy undergrowth of Bramble and Ivy with limited access to the base. A number of young Ash trees are beginning to develop above the general hedge line. Bramble and Ivy are colonising the crowns of Hawthorn and are beginning to suppress the canopies, leaving them more prone to wind damage. A.4.0 | - | A.3E, A3W | -						It would benefit from trimming to tidy up and contain encroachment. Control Bramble and Ivy growth.		C2
Hedge No. 10	**Oak** *Quercus* sp. **Hawthorn** *Crataegus monogyna* **Blackthorn** *Prunus spinosa* **Bramble** *Rubus fruticosus* **Dog Rose** *Rosa canina*	**This hedgerow forms part of what was originally a much longer field hedgerow extending in a north to south direction on the boundary between two fields. It has been separated from the rest of the hedgerow to the north by the construction of a new roadway.** It is of a mature age class and is in fair/poor condition physiologically and structurally. It is growing on the west side of a deep drainage ditch which extends in a north to south direction along the hedge line and the hedge has been cut to its current height and the spread. Construction works have come close to the base on the west side and ground levels have been reduced by c.0.3m. A number of Oak trees have been allowed developed above the hedge height and Bramble and Ivy are colonising the hedge line. A.2.0 | - | A.2E, A2W | - **The following trees are located within hedge No.10.**						It would benefit from trimming to tidy up and control Bramble and Ivy growth where heavy on hedge plants.		C2
1342	**Oak** *Quercus* sp.	6	420	3	2.5	Early Mature	Fair	Fair A single stem tree growing up on top of the	Cut Ivy at ground level.	10-20	C1

Tree No.	Tree Species	Ht. (m)	Stem Dia. (mm)	Branch Spread (m)	C-Ht. (m)	Age Class	Phy. Con.	Structural Condition Other Comments	Preliminary Recommendation	ULE in Years	Cat Grade
								N= North **S**= South **E**= East **W**= West **A**= Average **Phys Con**.= Physiological Condition	**C-Ht**= Crown Height **Stem Dia.**= Stem Diameter		
								deep drainage ditch located to its east. It is growing up with Tree No. 1343 and Ivy growth extends up into the crown. Construction works have encroached near the base on the west side and ground levels have been lowered by c.0.3m.			
1343	**Oak** *Quercus* sp	6	A 400	2	2.5	Early Mature	Fair	Fair A twin stem tree from c.1.8m up and it has a distorted structure due to competition from Tree No. 1342. Ivy growth extends up into the crown. Construction works have encroached near the base on the west side and ground levels have been lowered by c.0.3m.	Cut Ivy at ground level.	10-20	C1
1344	**Oak** *Quercus* sp.	7	A 500	5	4	Early Mature	Fair	Fair. Located at the southern end of this section of hedge and it is growing on the top of a deep drainage ditch located to its east. It divides at c.2.5m into a multi-stem tree. It is growing with a pronounced lean to the east. Ivy growth is developing up the main stem.	Retain for now as part of the bulking of this area.	10-20	C1