

Arboricultural Report
Proposed Development of 74 No. Residential Units at
Craddockstown Road
Craddockstown Demesne
Naas
Co. Kildare
March 2017

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Introduction

The survey has been prepared by-
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Report Brief and Context

This report was requested by the “**Kildare County Council**” and comprises an Arboricultural review of the proposed development and provides a basis by which the site’s trees can be assessed in respect of sustainable retention, in the post development scenario. It also provides information in respect of tree protection and the avoidance of damage to trees during the construction process.

This report should be read in conjunction with the various tree related drawings.

The drawing the drawing “Craddockstown Road-TCP-03-17” provides a graphic representation of tree survey data, depicting the constraints asserted by the site trees, as well as a categorisation their condition and potential value.

The drawing “Craddockstown Road-AIA-03-17” depicts the expected impacts by overlaying the tree information as depicted in drawing “Craddockstown Road-TCP-03-17”, with the architectural and engineering drawings. This understanding provides the basis upon which decisions can be made in respect of sustainable tree retention and the provision of tree protection to maintain and maximise tree sustainability in the post construction scenario.

The drawing “Craddockstown Road-TPP-03-17” depicts the location of the various tree protection measures required for the provision of protection from the issues raised in the impact assessment.

Report Limitations

This report is based on the Arborists interpretation of information provided to him prior to report compilation and gained from the site during the undertaking of the site review and tree survey. The site review data is subject to the limitations as set out under “Inspection and Evaluation Limitations and Disclaimers” in “Appendix 1” to the original tree report. The findings and recommendations made within this report are based upon the knowledge and expertise of the inspecting Arborist.

The envisaged outcomes outlined in this report are contingent on the full and correct application of all the measures and procedures it recommends, the omission of which may greatly change any expectation of success.

Regarding the Implication Assessment elements of the report, the report necessarily comprises assumptions and estimates, particularly in respect to how the project might proceed on a day to day basis. In this respect, many elements of the “Method Statement” remain broadly generic, but where possible, require additional review at the construction stage, for example in respect of the size and nature of the equipment or plant that might be utilised by any potential building contractor.

Reporting Context

This assessment comprises the results and recommendations arrived at after the screening process and considerations defined within the “Implication Assessment” at “Appendix 2” and after an evaluation of trees as defined in the tree survey at “Appendix 3”. With the identification of the development related impacts, a Method Statement and Tree Protection Plan has been provided to illustrate the requisite conservation and protection methodologies necessary to maintain tree sustainability.

The “Implication Assessment” screening combines information gained from the tree survey, as well as the information provided by Architects and Engineers in respect of the nature of the proposed development. The effects of the proposed development have been assessed on the above details in respect of the ability to protect retained trees from the effects of the proposed development works.

Accordingly, the accuracy of this assessment is based on all its elements and the omission or alteration of any part can radically alter the ability to or the suitability of ostensibly retainable trees. Therefore, any change in engineering detail or non-compliance with the protection plan and tree protection methodologies will have the potential to alter the sustainable tree retention outcome.

Report Summary, Findings and Recommendations

The cumulative effect of the proposed development and its unavoidable need to consume space to account for required development densities, standards of road access and parking, the provision of infrastructure services and particularly, attenuated drainage and all other development related requirements is one of demanding the consumption and modification of a substantial proportion of the available ground space. This in turn means that the primary requirement in respect of sustainable tree retention cannot readily be achieved in that only a small proportion of the site can effectively be fenced off and protected from the damage and disturbance unavoidably relating to development works.

Site Description

The site in question comprises several contiguous agricultural fields combining to create a broader, typically rectangular overall site area that is longest about its east-west axis.

The site area appears to be broadly level and flat with the sole exception of localised topographical features including field boundary embankments from which much of the site of vegetation arises. These in ointments typically exist in association with field drainage ditches.

The site area remains under use for grazing and thus is dominated by open grassland. The vegetation with which this report deals is typically associated with the field/paddock demarcation hedges.

Pre-Development Tree Population

The site in question comprises an existing agricultural context, with several broadly open fields divided from one another by somewhat dilapidated Hawthorne based hedges.

From these hedges arise a substantial number of visually significant trees, typically Ash. However, substantial concern exists in that many are almost totally obscured by dense Ivy cover and thus, detailed visual review cannot be completed at present. This factor is considered particularly poignant in that, Ash suffers from commonly occurring and debilitating pathogens, such as in a notice whose evidence is easily and commonly obscured by Ivy cover, thus providing no evidence of what can be a disease that inevitably leads to catastrophic failure. Attention is drawn to the survey table and the fact that in a small number of instances, evidence of pathogens has been noted and these trees have been condemned from the outset. Additionally, note should be made that several trees have been noted to be defective and subject to prior breakage and these trees also have been condemned to removal. Nonetheless, this leaves us with a substantial number of trees remaining, many of which appear ostensibly suitable for retention. However, the fact that they are obscured by dense Ivy cover leaves concerns in respect of the fact that any or all could be affected by such issues and therefore, the suitability for retaining individual trees remains unknown. In respect of this, a substantial number of trees have been regarded at present as being of some potential but limited potential for retention.

In addition to the above, some concern relates to the “perched” nature of many of the site trees in that they are positioned on to of raised earthen banks, many of which are now effected by disturbance or erosion. Tree failure has been noted and issues of site safety must be considered in light of proposed future use and existing contexts, such as the school and its parking facilities that directly adjoin part of the sites northern boundary.

The hedges associated with the site must also be regarded with some degree of caution. The clear majority are associated with substantial topographical features, including ditches and raised embankment, some of which are now subject to erosion and indeed in some positions have seen the failure of the supported hedge. In many instances, the hedges are substantially dilapidated with the originally planted Hawthorn populations now diminishing rapidly and continuity within the hedge form is often place dominated by lower level Bramble and Blackthorn thicket.

In many instances, the associated thicket development has greatly extended the hedge profile and often extends many metres (10 – 15 m) into the site.

Therefore, and notwithstanding the visual effect is provided to date, it must be appreciated that should the more invasive and extending species such as Bramble and Blackthorn be removed and the hedge profile reduced to its central and original line, 2 substantive effects will be unavoidable, the first being a massive diminution in cover and

screening and secondly a substantial diminution in continuity and contiguity. For this reason and because of an intrinsic need to retain the topography upon which the hedges arise, then it is necessary for any desire to retain to be incorporated into a preliminary retention strategy that can address the above issues.

In respect of the broader development strategy, additional concerns exist in respect of change of site use and context. Many the trees encountered are of poor to mediocre quality and accordingly, their suitability for retention is questionable and will become more so, should the context be changed and occupation and use is increased. There are other similar but reduced concerns and lesser issues in respect of the hedging.

Nature of Proposed Works and Likely Impacts

The Proposed development will comprise 74 no. residential units at Craddockstown Road, Craddockstown Demesne, Naas, Co Kildare

Whilst the footprint of the proposed structures and buildings, access roads, parking area and paths are readily understandable regarding the spatial requirements, additional and ancillary space is commonly required for construction works and associated activities. Additionally, note is made that the proposed development will require substantial amendments to current ground levels across notable areas of the site.

Site trees can readily be affected by one of three primary impacts including

- A. Direct conflict with proposed structures, thus requiring tree removal.
- B. Partial conflict where the “Root Protection Area” is encroached upon by works or ground amendments and cannot be preserved/protected in full.
- C. Environmental damage e.g. compaction, capping, sealing – changing the existing ground environment to one that can no longer support tree root function.

Note is made of the fact that the development proposals include elements and structures within the nominal root protection areas associated with trees intended for retention. Examples of this include various elements of the proposed landscape works including new social use areas and access paths. Such works will require a particularly careful approach and the use of materials and techniques intending to minimise excavation and compaction of the underlying root bearing soil.

Identification of Impacts

This report, its findings and recommendations have arisen from the scrutiny of development proposal drawings as provided by Coady Architecture and including services information provided by Malone O’Regan Consulting Engineers and lighting as provided by Semple McKillop Engineers, in conjunction with the most recent tree survey data (as appended to this report). The evaluation is primarily based on minimum protection ranges as extrapolated from the tree survey data in accordance with paragraphs 4.6.1, 4.6.2 and 4.6.3 of BS5837: 2012 and any element of the proposed development of works associated with is that affects the defined protection areas.

In respect of tree impacts, any structure, action or apparent need to enter or otherwise disturb/convert the “root protection area” of a site tree has been considered likely to have a negative impact, with the potential to render a tree wholly unsuitable for retention, unsafe or unsustainable.

Additionally, the tree specimens have been evaluated in respect of health, sustainability and suitability for retention within the new context and adjoining the proposed development. Such considerations can readily affect the “predevelopment suitability for retention” scenario.

The perceived development impacts have been illustrated graphically on drawing “Craddockstown Road-AIA-03-17”, within which trees denoted with “Dashed Black” crown outlines will be removed and those denoted with “Continuous Green” crown outlines will be retained.

Expected Development Impacts

The drawing “Craddockstown Road-AIA-03-17” comprises the tree survey drawings overlaid by the development drawings, thus providing a graphic representation of the tree related impacts, with those trees that will be lost being denoted by black dashed outlines.

The proposed development will see a substantial change in site context, particularly relating to occupation and use. Accordingly, the primary tree survey noted several trees that through poor condition, or being affected by decay or disease and are considered unsuitable for retention regardless of the proposed site development. Such specimens have been categorised as category “U” (unsustainable or unsuitable for retention) trees within the tree survey and have been recommended for removal regardless of site development.

This includes the required loss of-

- 6 No. Category U trees
- 7 No. Category B trees
- 28 No. Category C trees

However, note must be made that the extent of tree planting envisaged across the site will in part mitigate the above losses.

Note must be made of the substantial change in context that the proposed development will bring to the site. Some of the trees ostensibly suitable for retention are not in perfect health and others raise concern in that Ivy cover prevents detailed review at present. Accordingly, and subject to further review, such as after Ivy cutting, or on an ongoing basis over time, the sustainability of such trees remains unknown.

Additionally, note is made that some trees are intended for retention in positions close to new homes. This relates primarily to trees 184, 185 and 186 where they adjoin units 16 and 27. In such instances, issues of growth and encroachment may well develop over time.

Considering the above and after the primary site clearance felling works, it is advised that all ostensibly retainable trees be reviewed in respect of amending the preliminary management recommendations provided as part of the original tree survey. In this way, issues existing to date as well as those arising in respect of site shelter loss and site context changes can be addressed.

As defined within the Arboriculture Method Statement included in “Appendix 2” to this report, it will be necessary to review all ostensibly retainable trees after the primary site clearance and with consideration to the proposed development context. Such a review will address not only a tree’s own management requirements, but must also address the change of context, increased occupation and use and potential threat as might be presented by any given tree, particularly in respect of its new and somewhat more exposed aspect.

Tree Protection within the Scope of a Development

The design and management recommendations as set out in BS5837: 2012 are considered “best practice” regarding the selection, retention, protection and management of tree within the scope of a new development.

All protection, whether vertical or horizontal, must conform or equate to the recommendations of Section 9, BS5837: 2012, must be fit for purpose and commensurate with the nature of development and the expected day-to-day activities of the site works.

Tree Protection intentions have been illustrated on the associated drawing “Craddockstown Road-TPP-03-17”. The bold “Pink” lines denote the proposed location of the primary protective “Construction Exclusion Fencing” and the “Pink” hatched area represents the primary “Construction Exclusion Zone”. Such fences are to be erected prior to the commencement of any site works and must remain in situ (unless under the guidance of the site Arborist) until all site works are completed.

Note is made that various elements of the proposed development require actions, activities and the production of structures within nominal root protection areas. Examples of this involve the various elements of the landscape proposals including new paths.

Such works raise reduced degrees of concern in comparison to the primary construction, but must nonetheless appreciate the ethos of the tree protection requirements. Accordingly, access and activity will be limited and controlled, with preference being given to manual and pedestrian techniques.

In respect of vehicular/plant/machinery access, the provision of suitable ground protection measures that avoid soil compaction and maintain drainage/percolation and breathability and are acceptable to the project Arborist and subject to engineering confirmation, can be utilised. Such might include the various form of “roll-out” temporary access surfaces, or might include the “three-dimensional cellular confinement systems that utilise specific forms of confined hard-core. It must be noted that the effective use of either system is subject to the avoidance of excavation and level changes, by use upon existing ground surfaces.

Where provided, the above systems would allow for the relocation of the “Construction Exclusion Fencing” to provide access to and across areas designated as root protection zones.

In respect of necessary and unavoidable structures required within the “RPA” zone, all efforts must be made to minimise impacts. Aerial elements may require access facilitation pruning or clearance pruning. Subterranean works that require excavation, must by design, location and action, minimise impacts to trees. This may require the adoption of “manual only” procedures so that root damage can be minimised, for example by hand digging or the use of “air-spades” for excavation or trenching. All such works must be undertaken under the guidance of the project Arborist who will advise on likely repercussions and necessary tree management issues.

In respect of all the above, attention is drawn to the provision of an “Arboricultural Method Statement” as part of this report. As no information exists to date in respect of any construction methodology or the plant/equipment that might be employed, then the method statement is intentionally general and prescriptive, attempting to address most regularly encountered scenarios applicable in general to all construction sites. The bold “Pink” lines denote the proposed location of the primary protective “Construction Exclusion Fencing” and the “Pink” hatched area represents the primary “Construction Exclusion Zone”. Such fences are to be erected prior to the commencement of any site works and must remain in situ (unless under the guidance of the site Arborist) until all site works are completed.

Nominal Tree Management Recommendations

Preliminary management recommendations have been put forward within the context of the survey table. Such recommendations are based on the current site scenario and pay no respect to any possible site developments or the effects that these may have on the trees.

As defined in the method statement, it will be necessary for the project Arborist to re-assess all retained trees after primary site clearance and felling works, so that changes in site usage, aspect and shelter loss can be better assessed and accounted for. This review will result in the compilation and issue of a new tree management plan that will supersede the preliminary recommendations made within the original tree survey.

Additionally, and regarding this development, note is made of the possible effects of various works, such as those requiring the creation of new surfaces near trees. Such works must be undertaken under the guidance of the project Arborist, who may, subject to the nature of tree roots encountered, amend any previously provided tree management recommendations.

In respect of this and regardless of any possible site development, it is advised that all trees be reviewed on regular basis and after any actions that may affect the trees, be those site development works or tree management works that involve tree removal or pruning.

Appendix 1

Arboricultural Implication Assessment

a) Assessment Scope

This assessment is based upon the recommendations and criteria as defined within BS5837: 2012 Trees in Relation to Design, Demolition and Construction – Recommendations. The assessment will review both direct and indirect implications.

The assessment screens the proposed development in respect of many expected criteria as defined below.

The assessment criteria will include-

- 1) Construction Requirements
- 2) Above and below ground construction constraints
- 3) Services and Infrastructure to new structures
- 4) Modification of design
- 5) End Use of Space
- 6) Effect of Development on Trees – Retention/Removal
- 7) Effect on Amenity Value
- 8) Tree Preservation Orders or other retention orders
- 9) Potential and Value of replacement planting
- 10) Interaction of Retained Trees and Proposed Development
 - a) Future Growth and Maintenance
 - b) Light ingress
 - c) Potential for Hazard and Damage
 - d) Social Concerns

1) Construction Requirements

The construction process will culminate in the creation of a new 74-unit housing development, together with all necessary infrastructure, access roads, and landscape.

The extent and nature of the proposed development will require the use of substantial site plant and equipment, particularly in respect of excavation and lifting. It will also require a notable degree of vehicular access to various points about the site.

All such activity has the potential to affect tree health and retention potential. Such affects typically include the excision of ground space that currently supports tree root material, mechanical damage to limbs branches and stems from the passage of vehicles, or the disturbance/damage of existing ground environments by way of compaction, contamination or sealing (e.g. new surfaces), thereby rendering such ground incapable of sustaining suitable levels of tree root function.

Such affects can readily result in tree death or can undermine tree stability and safety. The effects of such damage may not become apparent at the time of occurrence, but can take many months or years to develop. Such damage can result in direct death or can weaken and predispose a tree to attack by various pathogens that undermine tree health and viability.

In respect of the above, it is imperative that the constraints imposed by site trees are reviewed carefully and considered when reviewing a trees suitability for retention, both in respect of the developed scenario as well as during the construction process.

2) Above and Below Ground Construction Constraints

The “Tree Constraints” as defined by BS5837, have been depicted in drawing “Craddockstown Road-TCP-03-17”, which shows the shape of the tree crown as well as a nominal calculated extent of ground requiring protection from the effects of development activities, damage or disturbance. The primary protection radii are those nominated for

each retainable tree within the original tree survey data set and represented on the constraints drawing by an orange dashed circle surrounding all category A, B or C trees. This initial representation can be substantially effected in both shape and extent by existing ground features that can influence root growth and development.

To illustrate both tree constraints and development conflicts, the drawing “Craddockstown Road-TCP-03-17” has been overlaid with the development drawings as supplied by Coady Architecture, including services information provided by Malone O’Regan Consulting Engineers and lighting as provided by Semple McKillop Engineers. The intention is to provide a graphic representation of the spatial relationship between trees and the various elements of proposed development works.

The overlaid and combined drawing showing both tree constraints and development proposals “Craddockstown Road-AIA-03-17” serves to illustrate the minimum areas requiring protection from the effects of construction related activity, relative to the broader site. Accordingly, the drawing provides a reasonable understanding of conflicts between tree and necessary works, as well as providing a better understanding of the issues relating to access and work space. This in turn has advised the tree protection requirements.

3) Service and Infrastructure to New Structures

Services and infrastructure typically includes but is not restricted to both underground and over-ground services to the proposed development. Underground services often require trenched or other excavated access and routing that can sever and destroy tree roots. The routes and depths of such services are often governed by inflexible engineering requirements and accordingly can attract substantial complications if relocation is necessary. Sustainable drainage systems can raise issues, particularly where below ground attenuation tanks are required.

In this instance, the proposed engineering and infrastructure details have been provided by Malone O’Regan Consulting Engineers and lighting as provided by Semple McKillop Engineers, in the form of drawings “SHB1-CRA-CS-MOR-DR-102-Drainage Rev Draft 2_Iss1.dwg” and “SHB1-CRA-SMK-2231-SITE-ME-70-50-04 Rev3 Site Lighting & Ducting Requirements-A1_Iss1.pdf”.

In respect of the above, attention is drawn to the recommendations as set out BS 5837-2012 Trees in Relation to Design, Demolition and Construction – Recommendations, Section 7.7 Underground and above-ground utility apparatus and its advice in respect of trenchless solutions for differing utility apparatus installation requirements.

Where possible, preference should always be given to routing underground services or any other infrastructure requiring excavation or trenching through areas outside of any trees “RPA” zone.

Where such services are required within the “RPA” zones of any tree then additional advice and recommendations can be gained from the National Joint Utility Group’s – “Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees” (NJUG 10).

4) Modification of design – Necessity, Value and Benefit

In some instances, the quality or importance of a tree or trees might warrant design/layout amendments to enable sustainable retention. In many instances, this might not be feasible, whilst in others it may require the amendment of minor details, materials or procedures.

In the case of this development, the advanced state of the design in conjunction with the scale of the development relative to the site size has allowed for few beneficial amendments, especially in light of the mediocre and poor quality of some of the trees involved.

5) End Use of Space

The proposed development will culminate in the provision of 74No. new dwelling. Whilst the fundamental function will be the provision of residential facilities, the overall development and its provision of landscaped areas also serve to provide space for pedestrian and vehicular access as well as recreation and social use.

The nature of the potential tree failure targets in this scenario are considered static and permanent regarding the principal structures, but irregular and intermittent regarding the vehicular access/parking and pedestrian access thereto and social usage thereof.

The cumulative effect of the development would appear to be to increase the rates of occupation and use in areas near trees intended for retention.

6) Effect of Development on Trees – Retention/Removal

For the purposes of this report, the location, orientation and extent of development have been based on information gained from the architectural, engineering and landscape drawings that have been overlaid with the tree survey data to produce the drawing “Craddockstown Road-AIA-03-17”.

Note should be made that the original tree survey related to a site substantially larger than the current “red line” proposals and accordingly, this report deals only with those trees within and directly adjoining the red line area.

Regardless of development, attention is drawn to the category “U” trees as denoted by the “Red” category button surrounding the tree stem. Such trees have been nominated for removal regardless of development works on the grounds of poor quality or poor sustainability. Such trees may not be regarded as a direct impact of development but might more accurately be regarded as losses associated with inevitable site management.

Category “U” trees recommended for removal regardless of site development because of poor condition include Nos. 191, 192, 197, 132, 255 and 273.

Note should be made of additional category “U” trees located outside of the proposed works area.

Of the site’s category “B” trees, the development works appears to require the removal of trees 191, 192, 197, 232, 254, 255 and 273.

Of the site’s category “C” trees, the development works appears to require the removal of trees Nos.170, 171, 172, 173, 175, 176, 187, 188, 189, 190, 193, 194, 196, 222, 223, 224, 225, 227, 228, 229, 230, 231, 233, 234, 235, 236, 237 and 238.

This includes-

6 No. Category U trees

7 No. Category B trees

28 No. Category C trees

7) Effect on Amenity Value

Amenity value might be reviewed considering the methodologies highlighted by “Helliwell”, or by other similar systems. Such systems attempt to quantify and value the importance of a tree within the landscape and tend to revolve about the trees appearance and importance to the adjoining areas. Invariably, the trees value will be linked to its “public” appearance and its visibility from a publicly accessible position (existing or proposed).

As the proposed development intends to encompass the removal of trees then its effect on amenity value is unavoidable, however the current use and context of the site is such as to see those trees attain limited amenity value at present.

Nonetheless, the loss of trees on this site will impact visual amenity to some degree, a factor that has been addressed by the extent of replacement planting called up by the project Architect.

8) Tree Preservation Orders or other Retention Orders

At the time of writing, the author of this report had no knowledge of the existence of Tree Preservation Orders as may have been applied under the “Planning and Development Act 2000”.

It is advised that contact be made with the County Council with regards to possible site conservation constraints that may require that you notify the authority of likely tree works and particularly tree felling.

Consideration should also be given to other legislation that can relate to trees including the “Birds Directive 79/409/EEC” and the “Natural Habitats” Regulations 1997. Such legislation revolves about the avoidance of disturbing wildlife, for example in the avoidance of hedge cutting during the bird nesting season (i.e. between the 1st day of March and the 31st day of August in any year)

Being located within a County Area, it should be appreciated that the removal of any of the trees noted in the survey and notwithstanding those that might prove to be exempted, may be subject to the requirements of the 1946 Forestry Act and those in relation to the procurement of a Tree Felling Licence.

However, and of overriding importance, is the fact that under Paragraph “2b” of the “SUMMARY OF THE MAIN PROVISION OF THE ACT IN REGARD TO THE FELLING OR UPROOTING OF TREES”, “a tree standing within 100 feet of a building other than a temporary structure or wall”, is not subject to the licence requirements of the 1946 Forestry Act.

It should be noted that the undertaking of any form of tree works on the site would incur numerous “Health and Safety” issues. Such issues will relate to the physical undertaking of the works and to the area/space influenced by that undertaking. Such space will include both the site as well as the adjoining public roadway over which some trees hang.

9) Potential for replacement planting

Notwithstanding the consumption of space about the development portion of the “red line” site, it is noted that the broader site provides extensive space potential for the planting of trees, groups of trees and shrubberies.

In respect of this, attention is drawn to the landscape proposals associated with this development application as provided by the project Architect.

10) Interaction between Retained Trees and Development

a) Future Growth and Maintenance

Many of the trees encountered on this site have the potential to increase substantially in size over time. As such, management issues may well arise. Species such as Sycamore and Ash can all attain heights exceeding 20.00 metres in time. Accordingly, issues of sustainability and contextual compatibility may arise if such trees are retained within a close knit developed context.

The retention of large growing trees can lead to issues of encroachment on existing or new structures. They can impose a requirement for ongoing management and pruning/cutting back over time. Such trees can raise social issues including shadow-cast and light blockage.

The retention of any large growing tree within an area of known occupation and use may incur risks. Any tree can be subject to failure, even when healthy, though such risks are increased dramatically during severe weather events. This is of particular concern in respect of the ostensibly retainable large trees close to the northern boundary of the site that will both overhang the adjoining public roadway and footpath as well as the proposed access driving parking areas to the development.

Such risks are considered exacerbated in this instance, particularly in relation to the proximity of works to trees whose retention is desired. Such trees have the potential to present a tangible threat to the proposed development. The application of various pruning works, may serve to reduce tree related risks in some circumstances, though issues of unsightliness are likely to be unavoidable.

It is advised that any tree retention encompass a regular review and inspection system. Only in this way can the possible signs or symptoms of ill-health or deterioration be noted at an early stage, thereby enabling early intervention. Such a review should be on an annual basis.

Seasonal issues can arise in respect of leaf loss, particularly where deciduous species predominate, creating a drifting potential of leaves during windy weather. Note should also be made that in severe instances, where leaf fall is extensive, that drifting and surface water washing can see the development of drainage issues with gullies and grids being blocked. Such issues can result in a need for seasonal management and leaf clearance.

b) Light ingress

The trees currently intended for retention on the site are located intermittently across site, thus providing minimal constraint to light admission and thus is unlikely to cause substantial shadow-cast other than on a localised, transient and particularly limited basis.

Where they occur, such issue can result in the development of pressures towards tree removal because of reliance on artificial light and shaded garden areas.

c) Potential for Hazard and Damage

In many instances concerns relating to “Potential for Hazard and Damage” have been discussed at “a” above.

Wherever retainable trees exist near structures, thoroughfares or roadways, there is always a potential for hazard, damage or injury. This factor would relate both to the principal structures as well as to pedestrian and vehicular occupancy of the spaces adjoining the principal structures.

In this scenario and because of the proximity of trees to the proposed development, safety concerns exist in respect of the possible effects of works, particularly where they occur within the nominal “root protection area” of a tree.

Notwithstanding the notes above, it must be appreciated that any tree can be subject to failure, particularly during severe weather events. Therefore, and considering the proximity of trees to the proposed development and the adjoining road, then the potential for tree failure related harm/damage cannot be ruled out.

The nature of the potential targets in this scenario is considered static and permanent regarding the principal structures, but irregular and intermittent regarding the vehicular access/parking and pedestrian access thereto. The proximity of trees to the adjoining public road to the north must also be considered.

It is therefore advised that consideration be given to constant and regular monitoring throughout the future regarding hazard mitigation as well as the application of short-term remedial works including structural pruning, to reduce the potential level of threat as may be presented at present.

Such pruning works should be applied in accordance with “BS 3998: 2010 Recommendations for Tree Work”

d) Social Concerns

It should be appreciated that the proximity of large trees is known to, on occasion, cause apprehension regarding the possible threat of mechanical failure and related damage. Such apprehension is typically maximised during high winds and storm conditions.

Trees can attract secondary problems including perched and roosting for birds that can result in noise problems as well as an accumulation of droppings and guano. Some trees can attract huge aphid populations that can create notable “Honey-dew” problems creating unsightly film build-up on windows, vehicles and other structures including pathways where the residue can become very slippery after rain.

Shadow cast and shelter can reduce drying rates in areas beneath and adjoining tree crowns, a factor that can lead to escalated rates of moss and algae build-up. This can cause management problems including lawn management issues and slip hazards like those associated with “Honey-dew”.

Seasonal issues can arise in respect of leaf loss, particularly where deciduous species predominate. In this respect, note should be made both location of trees relative to homes as well as facilities such as roads and paths and consideration should be given to the drifting potential of leaves during windy weather. Note should also be made that in severe instances, where leaf fall is extensive, that drifting and surface water washing can see the development of drainage issues with gullies and grids being blocked.

Appendix 2

Arboricultural Method Statement and Tree Protection Plan

Method Statement Brief

Set out below is a broad and prescriptive method statement, intended to provide advice and guidance for most events, occurrences and issues that arise in respect of trees on typical development sites. The intention of this statement is to instruct and to advise regarding the execution of the proposed development in a manner that will be least detrimental to the retained tree population.

It should be used in conjunction with direct advice from the project Arborist, as site/project specific issues arise and information becomes available, thus may be amended and adjust by him/her to address project specific issues. In this respect, it must be appreciated that limited “construction management” detail was available at compilation time and therefore this method statement deals with tree protection in its broadest terms and may require modification to deal with project specific details to this development, e.g. to account for specific plant/machinery/access issues.

This method statement should be read in conjunction with the associated drawing “Craddockstown Road-TPP-03-17”, which defined the areas at risk and the general approaches in respect of tree protection.

Note should be made that the above drawing is not necessarily to scale. Accordingly, and in respect of tree protection rages from any tree, reference must be made to the root protection area radius as defined for that tree within the tree survey table.

It must therefore be noted that many tree management recommendations, as stipulated within the “Preliminary Management Recommendation” section of the primary tree survey, were made prior to any grant of permission, may no longer be applicable, or may require modification to account for the changes that the built project will cause.

Note should be made that the inability to conform to the recommendations of this method statement or the associated tree protection plan could readily change the sustainability of trees and/or their suitability for retention.

1.0) Overview

- 1.1 This method statement will be addressed and discussed by all member of the construction team management, prior to any site works or construction/demolition related works.
- 1.2 The method statements application must be discussed in detail in respect of expected site plant and equipment, access, activity and procedures and how they will be affected by the proposed tree protection measures and particularly where issues of none compliance are envisaged.
- 1.3 The project Arborist or other qualified person will oversee the application of all tree protection measures and any necessary modifications to this Method Statement to provide a basis upon which tree protection will be managed on the construction site.
- 1.4 This Method Statement is based upon the findings of the tree survey and Arboricultural Implication Assessment, carried out after the review of the proposed development plans.
- 1.5 This statement intends to address those items noted within the “Impact Assessment” as being potentially damaging to ongoing tree health and safety of retainable trees by the stipulation of methodologies and materials intended to mitigate such effects.
- 1.6 It deals with the execution of the works required for the proposed development regarding works access to areas within the “RPA” zones of retained trees.
- 1.7 This statement relates recommendations for both specific procedures as well as for unforeseen events or situations that have the potential to affect trees.
- 1.8 The tree constrains (radial range) associated with any tree to be retained on site is to be regarded as sacrosanct and is not to be entered for any reason without confirmation from the project Arborist.

- 1.9 Any situation that requires entry into the “root protection zones” of a tree intended for retention must be brought to the attention of the Project Arborist regarding the adoption/amendment of suitable tree protection measures
- 1.10 As unforeseen tree losses may compromise project planning permissions, it is imperative that issues relating to tree protection or tree damage be brought to the immediate attention of the project Arborist for review and possible discussion with the relevant planning authority.

2.0) Tree Protection

- 2.1 These notes must be read in conjunction with drawings “Craddockstown Road-TPP-03-17” that relates all tree constraints, trees for retention and removal, as well as the location of all tree protection measures.
- 2.2 Works access includes area outside only of the “Construction Exclusion Zone” and must provide for all required vehicular and pedestrian access as well as providing space for works, secure storage, deliveries, site management offices, parking, toilet facilities and all other facilities commensurate with the required works and to personnel and construction practice.
- 2.3 If entry into the “RPA” (Root Protection Area) zones becomes unavoidable, ground protection systems must be utilised. This practice will allow for the relocation of the “Construction Exclusion Fencing”, thereby allowing for an extension of accessible ground space.
- 2.4 All construction, works or access areas must be enclosed and defined by protective fencing, this comprising the “Construction Exclusion Zone”
- 2.5 Such a fence must be fit for purpose and commensurate with the nature of activity expected upon the site.
- 2.6 The fence should be in accordance with the overall “Tree Protection Plan”, at ranges/positions defined as “RPA” ranges in the original tree survey unless specifically agreed with the Project Arborist.
- 2.7 The fence should be 2.00 metres in height, constructed of robust materials and be suitably braced to withstand impact.
- 2.8 The fence may include sheet panels attached to timber posts or weld-mesh panels supported upon a scaffold bar system. All footings must be firm (no mobile rubber or cement footing), being installed with the aid of a post-hole driver, under the guidance of the Project Arborist.
- 2.9 An illustration (Fig 1-facsimile of BS5837: 2012) is appended to this document to illustrate a possible option for the construction of the protective fencing.
- 2.10 The fence should be affixed with notification signs such as “TREE PROTECTION AREA - KEEP OUT”
- 2.11 The position of all “Protective Fencing” must coincide with the edge of ground protection measures incorporated and exclude all site activities from the “Construction Exclusion Zone” or areas not provided with ground protection.
- 2.12 All protection measures must be installed in a manner that will cause least disturbance and under the guidance of the Project Arborist
- 2.13 Ground protection must be installed progressively, thereby allowing progressive access to the next area to be protected. No vehicles/plant will be allowed on unprotected ground.
- 2.14 Where applicable, structures such as “lock-ups”, offices or other temporary site building, not requiring excavation or underground ducting, may be positioned such as to comprise part of the “Construction Exclusion Zone” fencing. All remaining fencing must be continuous with such features and effectively prevent access.

- 2.15 All tree protection measures must be verified by the Project Arborist prior to works commencement and regarding maintenance for the duration of site works
- 2.16 No amendment, alteration, relocation or removal of the tree protection fencing shall occur without prior liaison and approval from the Project Arborist.

3.0) Specific Methodology for Provision of Ground Protection (If Required)

- 3.1 Ground protection can comprise the use of proprietary materials/structures or procedures that avoid ground damage/disturbance/compaction, or the use of procedures that avoid such effects e.g. manual/pedestrian installation procedures.
- 3.2 Such systems may include but would not be limited to the use of “roll-out” temporary vehicular access matting or the use of three-dimensional cellular confinement systems whose function results from the constrained use of hard-core.
- 3.3 Any system utilised must effectively spread load-weight, avoid compaction, maintain drainage/percolation/aeration and be installed in a manner that avoids these issues.
- 3.4 Where none proprietary ground protection systems are to be used, specific installation methodologies must be agreed with the Project Arborist and project Engineer prior to commencement.
- 3.5 Any area of ground protection must be regarded as part of the “Construction Exclusion Zone” until completed and as such must remain fenced-off from the general site.
- 3.6 Dependent upon the nature and durability of the ground protection, it may on completion of installation allow for construction related access if the perimeter of the new ground protected area is fenced-off, thereby preventing inadvertent access onto none protected ground of the remaining “Construction Exclusion Zone”.
- 3.7 Where proprietary ground protection systems are utilised, it is imperative that manufacturer’s specifications and recommendations are adhered to in full with regard to the provision and installation of this type of ground protection.
- 3.8 It is appreciated that the nature of the materials involved may require mechanical assistance of a nature that has the potential to cause ground damage and disturbance.
- 3.9 The progressive laying down of ground protection, with previously laid material providing vehicular access to the next zone will be acceptable as an approved methodology.
- 3.10 No vehicular access whatsoever will be allowed onto unprotected ground.
- 3.11 The provision of construction exclusion fencing may require the assistance of machinery and vehicles. No such vehicles will be allowed on unprotected ground.
- 3.12 On completion of any area by way of the provision of ground protection systems then vehicular access will be allowed to deliver materials and machinery the erection of construction exclusion fencing.
- 3.13 Construction exclusion fencing must be undertaken using either pedestrian means where ground protection does not exist but may use vehicular and mechanical assistance where ground protection systems have been put in place.
- 3.14 No mechanical or vehicular access must be made to areas of unprotected ground within the root protection area of any tree intended for retention.

4.0) Works within “RPA” Zone

- 4.1 Only works and construction practices, agreed with the Project Arborist prior to commencement, will be allowed in the “RPA” area.

- 4.2 The “RPA” zone associated with all retained trees must be protected from the effects of construction works.
- 4.3 Amended tree protection measures as agreed with the Project Arborist and including the relocation of fencing and the provision of ground protection will be installed in accordance with the tree protection measures prior to commencement.
- 4.4 All works will be undertaken under the supervision and guidance of the Project Arborist who will have the authority to stop works if activities are considered such as to have the potential to damage trees.
- 4.5 Preference must be given to manual labour and techniques within the fenced “RPA” zone.
- 4.6 On completion of the required works, the area will be inspected by the Project Arborist regarding the reinstatement of the original protection and the relocation of the protective fencing to a position relating to the original “RPA” area.

5.0) Service Installation

- 5.1 The “Project Arborist” must be consulted for advice and procedural recommendations, in respect of any installation of services within or requiring entry into the “Root Protection Area” of any tree intended for retention.
- 5.2 Any such works as may be identified in the future, must be undertaken with special care, incorporating the recommendations of both “BS5837: 2012 and the National joint utility groups, guidelines for the planning, installation and maintenance of utility services in proximity to trees (NJUG 10)
- 5.3 No open trenching will be allowed. All works must be commensurate with the preservation of the effected tree root system.
- 5.4 Preference will be given to trench-less techniques including Mole-piping, Directional-drilling manual hydro-trenching (high pressure water), “Air-Spade” or broken-trench techniques.
- 5.5 All works carried out within the “RPA” zone or “Construction Exclusion Zone” must be agreed with and supervised by the Project Arborist.

6.0) Tree Management

- 6.1 All tree works should be undertaken under the guidance of the project Arborist.
- 6.2 It is advised that all tree removal works as identified within the Arboricultural Implication Assessment be undertaken at the earliest stage of the overall development works.
- 6.3 On completion of primary site clearance and felling, the Project Arborist must re-assess all ostensibly retainable trees in respect of possible amendments to the “Preliminary Management Recommendations”
- 6.4 Tree pruning works are likely to be modified from those originally defined within the “Preliminary management Recommendations” of the initial tree survey to account for changed land use, changed rates of occupation and use ad to account for potential impacts upon the newly built environment including encroachment on buildings, possible light ingress issues and any other tree safety/management issues as may come to light during the development process.
- 6.5 A safe works procedure must be adopted by trained and competent staff.
- 6.6 Whilst any safe felling methodology may be adopted for much of tree felling works, it will be necessary to dismantle in sections, all trees within falling range of trees intended for retention into the post-construction period.
- 6.7 It is recommended that all preliminary works defined within the original tree survey be undertaken regarding all retainable trees.

- 6.8 Where no specific works are defined, general Cleaning-Out works should be applied (section 12 - BS 3998: 1991 Recommendations for Tree Work)
- 6.9 On completion of felling works, all retained trees must be re-evaluated by the Project Arborist regarding the potential effects of exposure and isolation.
- 6.10 Additional works including formative pruning, crown reduction etc., may be nominated for various trees in the interests of mitigating the potential effects of exposure and isolation.
- 6.11 All additional works will be agreed with the local authority and/or other stakeholders and applied at the earliest possible opportunity.
- 6.12 All such works must be carried out by a competent Tree Surgeon, suitably trained for the purpose at hand and compliant with all legislative, safety and insurance requirements.
- 6.13 All Tree Surgery/Pruning works will be undertaken under the guidance of the Project Arborist, the precise nature and extent of work being agreed before commencement.
- 6.14 On completion of site works, the retained tree population will be reviewed and re-evaluated regarding ongoing condition and the likely requirements of any ongoing or future monitoring or management needs

7.0) Demolition

- 7.1 All demolition procedures must be agreed and overseen by the Project Arborist and other suitably skilled staff to monitor for damage and to protect exposed roots/cut-trim exposed roots/oversee backfilling of exposed roots.
- 7.2 No vehicle, plant or other machinery will be allowed on unprotected ground within the “RPA” of a tree to be retained.
- 7.3 Where access into unprotected “RPA” zone becomes unavoidable then suitable ground protection, provided in accordance with an engineer’s direction and agreed with the Project Arborist will be installed.
- 7.4 Care will be taken to avoid damage to soil volumes beneath and adjoining demolished structures that may contain tree root material.
- 7.5 Whilst existing foundations/structures may provide temporary protected access to areas within the “RPA” zone, preference must be given to the location of demolition plant outside of the “RPA” zone.
- 7.6 Where tree exist near a structure to be demolished then the demolition should be undertaken inwards within the footprint of the existing building (Top Down, Pull Back).
- 7.7 Underground structures (services etc.) within the “RPA” zone should be reviewed with regards to retention in situ in the interest of avoiding tree damage.
- 7.8 Where underground structures (services etc.) within the “RPA” must be removed then the situation must be reviewed by the Project Arborist (and all other stakeholders) regarding the ongoing suitability of the affected tree for retention.
- 7.9 Preference should be given to the retention existing sub-bases where hard surfaces are removed, particularly if the hard surface is to be replaced.

8.0) Works Sequence

- 8.1 No construction related works will commence until the agreed level of tree protection, in accordance with the “Tree Protection Plan”, is completed.
- 8.2 All site tree protection will be “signed-off” as complete by the Project Arborist.

- 8.3 The tree management plan will be reviewed by the Project Arborist concerning amendments necessary to address changed land use, changed rates of occupation and use. This may account for potential impacts upon the newly built environment including encroachment on buildings, possible light ingress issues and any other tree safety/management issues, thereby amending (if necessary) the “preliminary Management Recommendations” stipulated in the original Tree Survey.
- 8.3 All tree surgery and felling works will be undertaken under the guidance of the Project Arborist.
- 8.4 The Project Arborist will liaise with the tree works contractor regarding the nature and extent of woodland access to facilitate felling works.
- 8.5 This will include the nomination of “No Vehicular Access” zones in areas where tree retention is envisaged.
- 8.6 Whilst the timing of general tree pruning works is less critical, it is appreciated that the Tree Felling works must be completed prior to construction in the interest of providing works access and reducing the risk of impromptu damage.
- 8.7 On completion of the felling works, trees to be retained will be reviewed regarding the amending of tree pruning works orientated towards the mitigation of exposure and shelter loss.
- 8.8 Revised pruning works will be agreed with the local authority and applied at the earliest possibly opportunity.
- 8.9 After the completion of primary tree clearance but prior to the commencement of construction works, all “Construction Exclusion” and “Protective” fencing must be erected to the satisfaction of the Project Arborist.
- 8.10 On completion of construction works, all protective measure may be removed, but in a manner, that does not compromise the “Protection Zones”. This must be completed in a “Progressive” manner, with each section being removed whilst utilizing protection systems still in situ. Such works must be agreed and overseen by the Project Arborist.
- 8.11 On completion of construction works, all retained trees will be reviewed regarding condition and longer term management recommendations and regarding site hand-over.

9.0) Ancillary Precautions

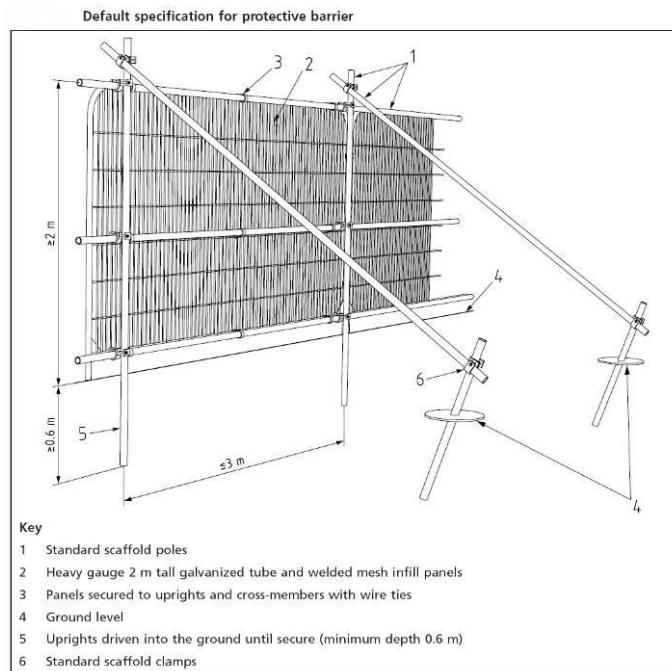
- 9.1 The methodologies as set out in this document apply to all undertakers of work upon or adjoining the site as may require access to the “Construction Exclusion Zone” or the “RPA” area of any tree.
- 9.2 This document will be disseminated to all persons requiring access to the work site.
- 9.3 All persons undertaking works either before or after the principal development (site investigation works, Landscape Contractors) are subject to the above requirements
- 9.4 Works outside the “Construction Exclusion Zone” must be controlled to create no potential secondary hazard to tree health.
- 9.5 Large loads accessing the site must be reviewed regarding clearance and potential tree damage.
- 9.6 Care must be taken regarding materials that may contaminate the ground. No concrete mixings, diesel or fuel, washings or any other liquid material may be discharged within 10 metres of a tree.
- 9.7 No fires can be lit within 5 metres of any tree canopy extent.
- 9.8 No tree will be used for support regarding cables, signs etc.

- 9.9 The trees should be reviewed on a regular basis throughout the development process and on completion. At that time, additional recommendations regarding tree management may be required.
- 9.10 Any issue that has the potential to affect site trees must be brought to the attention of the Project Arborist for review and comment.

10.0) General

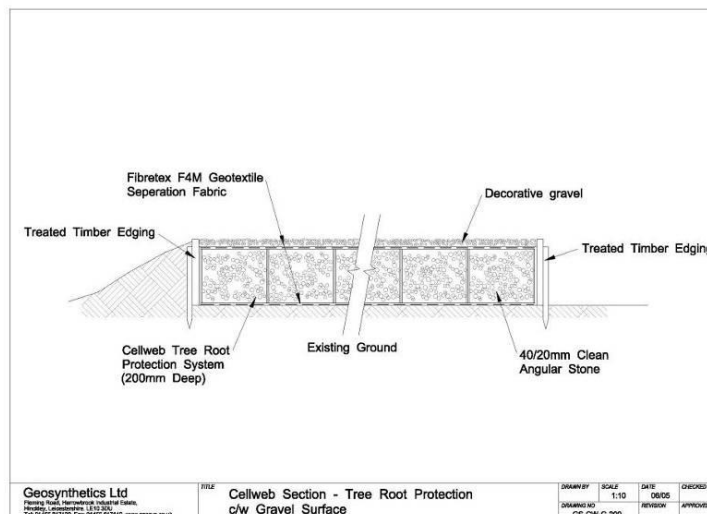
- 10.1 Any circumstances that become known whilst the development project is ongoing that either involves trees or access to/works within the construction exclusion zone must be brought to the attention of the Project Arborist for evaluation and advice regarding approach and methodology.
- 10.2 It is likely that liaison/agreement will be required with the Local Planning Authority regarding compliance with, as well as the verification of the required tree protection measures.

Fig 1



This image illustrates one possible option for the construction of the “Construction Exclusion Zone” protective fencing.

Fig 2



This image shows a proprietary brand of “Cellular Confinement” system that will provide load bearing capacity for vehicular passage whilst preserving the ground environment beneath the system.

Appendix 3 - Tree Survey

Nature of Survey

This survey has been based upon many of the criteria put forward in BS 5837: 2012 – Trees in Relation to Design, Demolition and Construction – Recommendations.

The data collected has been represented in table form as “Table 1” within “Appendix 1” to this report. This appendix includes a Survey Methodology, Survey Key, Survey Abbreviations, Condition Category Definitions and a brief resume of the typical application of Tree Protection measures as defined within the above standard and as relates to the “RPA” zones defined both within the survey table and on the “TCP” drawing.

The survey relates to the site and the conditions thereon at the time of the survey. It is likely that changes in site usage, development or other environmental changes will require an amendment of recommendations and in some instances, may require the re-classification of a tree’s suitability for retention.

Drawing References

The survey should be read in conjunction with the “Tree Constraints Plan” drawing “Craddockstown Road-TCP-03-17” regarding the representation of tree positions, crown forms, “RPA” extents and colour reference to category systems. Where tree positions were not indicated on the supplied drawing, their positions may have been given “sketched” locations within “Craddockstown Road-TCP-03-17”. It is advised that any such trees are accurately located by professional means so that the constraints such trees have upon the site can be accurately gauged.

Each tree is represented by a coloured circle, scaled to represent the north, east, south and west crown radii as denoted in the survey table. Each tree (categories A-green, B-blue and C-grey only) have been apportioned a “Root Protection Area” (RPA) denoted as a dashed orange circle. This circle represents the minimum area requiring protection from the effects of development activity. For the purposes of design, it should be considered as approximating the position of the tree protection fencing that must be erected prior to the commencement of any site works, thus excluding all site activities other than those dealt with by way of the “Arboricultural Implication Assessment” and “Arboricultural Method Statement”

The development of a Tree Constraints Plan (TCP) provides a design tool regarding tree retention. Such a plan combines the topographical land survey drawing with additional information as provided by the tree survey. The aspects of the tree’s existence recorded on the “TCP” are, firstly, the tree canopies, represented in accordance with the four cardinal compass point radii (Sp: R in survey Table 1). Secondly, each tree’s Root Protection Area (RPA) is represented in accordance with paragraphs 4.6.1, 4.6.2 and 4.6.3 of BS5837: 2012.

The “Tree Constraints Plan” (TCP) depicts the extent and location of constraints, placed upon the site by the trees. The “TCP” represents both the true canopy form (north, east, south and west radii) but also the “RPA” as defined above. These constraints must be considered regarding the design and layout of a proposed development.

Survey Intent and Context

Intention of this document is to highlight the extent and nature of material of Arboricultural interest on the site in question.

Survey Data Collection and Methodology

The Survey

The original survey was carried out in December of 2016. This survey portion of the overall report is not an Implication Assessment though but provided some of the basic information regarding its compilation. The survey has been undertaken under the recommendations of BS 5837: 2012. This survey includes only tree of a stem diameter exceeding 150mm at approximately 1.50 metres from ground level. The survey relates to current site conditions, setting and context.

Identification

Each of the trees described within the text has been affixed with a consecutively numbered, alloy disk that relates directly to the survey text, positioned at approximately 1.50m from ground level.

Measurements

Measurements are metric and defined in metres and millimetres. All trees referred to in the survey text have been measured to provide information regarding canopy height and canopy spread (north, east, south and west radii), level of canopy base and stem diameter at 1.50 meters from ground level. The dimensions provided are intended to provide a reasonable representation of a trees size and form. Whilst efforts are made to maintain accuracy, visual obstruction, especially regarding trees in groups, requires that some tree dimensions are estimated only.

Inspection and Evaluation Limitations and Disclaimers

The information set out in this report relates to the review of a tree population on the site in question. As such, the information provided is based on a general review of trees and does not constitute a detailed review of any one of the individual specimens. Such an evaluation (tree report) would require the gathering of substantially more information than that dealt with in this survey.

The survey is not a safety assessment and the parameters reviewed within this survey context would be substantially deficient in extent to provide for a reliable safety assessment. The survey is intended to provide a general and qualitative review to assist in gauging the suitability of an individual tree for retention within a development context. All trees are subject to impromptu failure and damage and the assessment of risk as may be presented by a tree requires the review of numerous factors more than those noted herein and as such, remains outside the scope of this document and any attempt to use the information herein for such proposes will render the information invalid.

All inspection and tree assessment has been completed by a competent and experienced Arborist. The inspection involves visual assessment only, which has been carried out from ground level. No below ground, internal, invasive or aerial (climbing) inspection has been carried out.

Trees are living organisms whose health, condition and safety can change rapidly. It is recommended that all trees should be re-evaluated regarding their condition on an annual basis or after substantial trauma such a storm event, other damage or injury. It is advised that the results and recommendations of this survey will require review and reassessment after one year from the date of execution. This survey does not constitute a review of tree or site safety. Attempts to use the contents herein for such purposes will render the contents invalid.

Throughout the undertaking of the survey, several factors acted against the inspectors, contriving to reduce the accuracy of the survey.

Seasonality

The primary survey was commenced during winter period. Some of the signs, typically symptomatic of ill-health or defect within a tree, may not have been available to view at the time of the survey or may have been obscured by seasonality related factors. Some of the fruiting bodies of various fungi, parasitic upon or causing decay or disease in trees, may have been out of season and unavailable to view. This survey can only comment upon symptoms of ill-health or defects visible at the time of the inspection.

Survey Key

Species	Refers to the specific tree species
Age	Referred to in generalized categories including: -
Y - Young.....	A young and typically small tree specimen.
S/M - Semi-Mature.....	A young tree, having attained dimensions that allow it be regarded independently of its neighbours but typically, would be less than 50% of its ultimate size.
E/M - Early-Mature.....	A specimen, typically 50% - 100% of ultimate dimensions but with substantial capacity for mass and dimensional increase remaining.
M - Mature.....	A specimen of dimensions typical of a full-grown specimen of its species. Future growth would tend to be extremely slow with little if any dimensional increase.
O/M - Over-Mature.....	An old specimen of a species having already attained or exceeded its naturally expected longevity.
V - Veteran.....	An extremely old, veteran specimen of a species, usually of low vigour and typically subject to rapid decline and deterioration or of very limited future longevity.
Tree Dimensions	All dimensions are in meters. See notes regarding limitation of accuracy.
Ht	Tree Height
C-Ht	Lowest canopy height
FSB	Level of First Significant Branch
Sp: R	Tree Canopy Spread measured by radii at north, east, south and west
Dia	Stem diameter at approx. 1.50m from ground level.
RPA	Root Protection Area, as a radius measured from the tree's stem centre.
Con	Physical Condition
G Good.....	A specimen of generally good form and health
G/F Good/Fair.....	
F Fair.....	A specimen with defects or ill health that can be either rectified or managed typically allowing for retention
F/P Fair/Poor.....	
P Poor.....	A specimen whom through defect, disease attack or reduced vigour has a limited longevity or may be un-safe
D Dead.....	A dead tree
Structural Condition	Information on structural form, defects, damage, injury or disease supported by the tree
PMR – Preliminary Management Recommendations	Recommendation for Arboricultural actions or works considered necessary at the time of the inspection and relating to the existing site context and tree condition. Note is also made of works considered as urgent.
Retention Period	
S – Short.....	Typically 0 -10 years
M – Medium.....	Typically 10 -20 years
L – Long.....	Typically 20 – 40 years
L+.....	Typically in excess of 40 years
Category System	The Category System is intended to quantify a tree regarding its Arboricultural value as well as a combination of its structural and physical health. Note should be made of the fact that tree categorization relates to the current site and tree locations therein. As site changes occur, it may become necessary to re-evaluate trees regarding their relationship to new features.
Category U.....	Typically relates to trees that are dead, dying or dangerous. Such trees may present a threat of suffer from a defect or disease that is considered irremediable.
Category A.....	A typically a good quality specimen, which is considered to make a substantial Arboricultural contribution
Category B.....	Typically including trees regarded as being of moderate quality
Category C.....	Typically including generally poor quality trees that may be of only limited value. The above categories (A, B and C) will be further subdivided regarding the nature of their values or qualities. A tree may be awarded one or more value categories as below, but such attributes do not infer any additional value and it may be possible for a tree may qualify for one or more of the categories as below.
Sub-Category 1.....	Values such as species interest, species context, landscape design or prominent aspect.
Sub-Category 2.....	Mainly cumulative landscape values such as woods, groups, avenues, lines.
Sub-Category 3.....	Mainly cultural values such as conservation, commemorative or historical links.

Appendix 1 – Tree Data Table

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
170	Ash (<i>Fraxinus excelsior</i>)	E/M	F/P	12.00	3.50	4.50	6.00	5.00	4.50	5	493	5.92	A relatively large multi-stem specimen, likely to comprise sucker regeneration from the stump of previous tree that arises from top of modified and partially excavated embankment. Tree is of poor quality and is considered ill-suited for retention in roadside position.	Cut ivy and re-evaluate.	N/A	U
171	Ash (<i>Fraxinus excelsior</i>) Group	E/M	P	9.00	1.50	3.00	5.00	2.00	4.00	4	430	5.16	Chronically distorted and naturally arising from within hedgerow thicket. Is of poor quality and distorted form. Is considered ill-suited for retention in roadside position.		S	C2
172	Ash (<i>Fraxinus excelsior</i>)	E/M	F	11.00	4.00	3.00	5.00	3.50	4.50	1	407	4.89	Young and vigorous. Reasonably well balanced but is of distorted form as result of competition by near neighbours. Much of crown is obscured by dense ivy cover. Tree arises from asymmetrical topography including apparent ditch embankment scenario.	Review regard retention context.	M	C2
173	Ash (<i>Fraxinus excelsior</i>) Wych Elm (<i>Ulmus glabra</i>)	E/M	F	9.00	2.50	4.00	4.00	4.00	4.00	1	366	4.39	Two proximity stems combined to create a single crown form. Both suppressed, distorted and elm raises concern regarding sustainability and prevalence of Dutch Elm disease.	Review regularly.	M	C2
174	Ash (<i>Fraxinus excelsior</i>)	S/M	F	6.50	2.25	3.50	4.00	4.00	3.50	1	220	2.64	In and still vigorous though supporting extensive ivy cover.	Review regard retention context.	M	B2
175	Ash (<i>Fraxinus excelsior</i>)	S/M	G/F	7.50	2.00	2.00	3.50	3.50	3.00	1	204	2.44	Slightly unbalanced but otherwise of good vigour.	Cut ivy and review.	S	C2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
176	Ash (<i>Fraxinus excelsior</i>)	S/M	F/P	6.50	1.00	4.00	3.00	2.50	3.00	1	271	3.25	Young and naturally arising. Multi-stemmed group suggesting possible soccer regeneration from stump of previous tree. Is considered mechanically poor and of undermined retention merit.		M	C2
177	Ash (<i>Fraxinus excelsior</i>)	M	G/F	16.00	2.00	6.00	5.00	6.50	6.00	1	618	7.41	An upright specimen of reasonable vigour and vitality. Much of crown is obscured by dense ivy cover preventing detailed review at present.	Cut ivy and review after one year.	L	B2
178	Ash (<i>Fraxinus excelsior</i>)	M	G/F	14.00	2.00	6.00	6.00	7.00	7.50	1	598	7.18	Tree supports pronounced imbalance to west. General vigour and vitality appears. However entire middle-crown is obscured by dense ivy cover preventing detailed visual appraisal. Note is made that area surrounding trees been subject to erosion with notable root exposure.	Review regularly. Cut ivy and review after one year.	L	B2
179	Ash (<i>Fraxinus excelsior</i>)	M	F	16.00	1.75	12.00	8.00	10.00	10.00		993	11.92	Large specimen of spreading form. Tree exhibits evidence of having suffered prior mechanical failure with evidence of cavity development and likely decay at circa 8.00 m. Vigour is below that expected for tree of this size thus raising concerns in respect of sustainability. Extent of crown is obscured by ivy cover raising additional concern regarding inability to fully review at present.	Cut ivy and review after one year. Review extent of cavity is.	M	C2
180	Sycamore (<i>Acer pseudoplatanus</i>)	M	F	14.00	1.75	10.00	9.00	8.00	5.50		592	7.10	Entire tree supports pronounced imbalance to north east. General vigour and vitality appears good at present however, large proportion of crown is obscured by dense ivy cover. Ground conditions are eroded with original supporting bank now substantially lost. Tree is subject to localised apparently superficial decay near ground level.	Cut ivy and review after one year. Review on regular basis.	M	C2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
181	Ash (<i>Fraxinus excelsior</i>)	M	F	15.00	3.00	8.00	7.00	3.00	6.00		598	7.18	Substantially unbalanced and north because of suppression by near neighbours. Vigour and vitality appears good though, review of trees obscure by dense ivy cover.	Cut ivy and review after one year.	L	B2
182	Ash (<i>Fraxinus excelsior</i>)	E/M	G	15.00	1.00	4.00	7.50	3.00	6.50	1	551	6.61	Suppressed because of proximity to near neighbours and has developed a fanlike crown profile. Correction a fanlike crown profile extending to east and west. General vigour and vitality appears good though much of crown is obscured by dense ivy cover.	Cut ivy and review after one year.	L	B2
183	Ash (<i>Fraxinus excelsior</i>)	M	G/F	16.00	2.00	5.00	8.00	8.00	8.00	1	726	8.71	A relatively large but slightly one-sided specimen supporting minor imbalance to south. General vigour and vitality appears good though much of crown is obscured by dense ivy cover, preventing detailed review at present.	Cut ivy and review after one year.	L	B2
184	Ash (<i>Fraxinus excelsior</i>)	M	G/F	18.00	1.50	7.50	9.00	8.00	8.00	1	780	9.36	A relatively large and apparently vigorous specimen supporting extensive ivy cover. Note is made of some deadwood within crown.	Cut ivy and review after one year.	L	B2
185	Ash (<i>Fraxinus excelsior</i>)	E/M	F	15.00	3.00	4.00	5.00	2.50	4.00	1	407	4.89	Distorted and with minor imbalance to east. General vigour is good, though much of crown is obscured by dense ivy cover.	Cut ivy and review after one year.	L	C2
186	Ash (<i>Fraxinus excelsior</i>)	M	G/F	20.00	1.50	8.00	9.00	8.00	8.00	1	879	10.54	Large and spreading specimen of apparently good vigour and vitality. crown is broadly diverging at circa 6.00 m suggesting possible early life decapitation. Concern exists in respect of inability to visually review at present.	Cut ivy and review after one year.	L	B2
187	Ash (<i>Fraxinus excelsior</i>)	M	F	17.00	4.00	4.00	7.00	7.00	6.00	1	544	6.53	Heavily one-sided and typically unbalanced to south as result proximity to near neighbours. General vigour and vitality appears good though much of crown is obscured by dense ivy cover.	Cut ivy and review after one year.	M	C2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
188	Ash (<i>Fraxinus excelsior</i>)	M	F	21.00	1.00	9.00	8.00	9.00	8.00	1	1031	12.38	A large specimen heavily obscured by dense ivy cover. Notwithstanding ivy, note is made of substantial deadwood and evidence of reduced vigour suggesting possible pathogen attack.	Cut ivy and review after one year.	M	C1-2
189	Ash (<i>Fraxinus excelsior</i>)	S/M	G/F	7.00	1.50	2.50	2.50	2.50	2.50	1	197	2.37	Young and vigorous with immense potential for continued growth. However, failure of compression fork at 5.50 m has undermined. crown form.	Review in respect of retention context and suitability.	M	C2
190	Ash (<i>Fraxinus excelsior</i>)	M	F	20.00	2.00	9.00	7.00	6.00	5.50	1	774	9.28	A large specimen with diverging crown of thin nature suggesting possible reduced vigour. Concerns are compounded by amount of deadwood and truncated limbs noted within crown. Tree is of reduced condition and vitality. Concern exacerbated by inability to review because of ivy cover.	Cut ivy and review after one year. Consider cleaning out.	S	C1-2
191	Ash (<i>Fraxinus excelsior</i>)	E/M	P	12.00	2.00	6.00	0.00	2.00	8.00	2	452	5.42	Chronically distorted and unbalanced to west. Is of dubious sustainability or suitability for retention.	Consider early removal.	N/A	U
192	Ash (<i>Fraxinus excelsior</i>)	M	P	19.00	1.50	7.00	8.00	5.00	8.00	1	751	9.01	A once larger and fork specimen has suffered basal failure with substantial wounds and elements of decay to south-west of stem base. Unsuitable for attention.	Remove.	N/A	U
193	Ash (<i>Fraxinus excelsior</i>)	M	F	18.00	2.00	6.00	9.00	8.00	8.00	1	815	9.78	Large and spreading specimen of apparently good vigour and vitality but is obscured by dense ivy cover about much of middle crown.	Cut ivy and review after one year.	M	C2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
194	Ash (<i>Fraxinus excelsior</i>)	E/M	F/P	15.00	2.00	3.00	0.00	4.00	6.50	1	535	6.42	Heavily distorted and unbalanced to west raising concerns regarding suitability for retention and or sustainability. Imbalance. Appears to have been exacerbated by early life crown damage. Such this suggests likelihood of damage relating decay and middle crown. Is of limited suitability for retention.	Consider early removal.	S	C2
195	Ash (<i>Fraxinus excelsior</i>)	M	G/F	21.00	4.50	8.00	6.00	7.00	8.00	1	789	9.47	A large specimen heavily obscured by dense ivy cover that prevents detailed visual review at present. General vigour and vitality appears good at present.	Cut ivy and review after one year.	L	B1-2
196	Ash (<i>Fraxinus excelsior</i>)	M	F	17.00	3.50	5.00	6.00	5.00	5.50	1	598	7.18	Somewhat smaller than near neighbours but appears be maintaining reasonable vigour and vitality. Concerns nonetheless exist regarding inability to review resulting from extensive ivy cover.	Cut ivy and review after one year.	M	C2
197	Ash (<i>Fraxinus excelsior</i>)	M	F/P	21.00	1.00	9.00	8.00	3.00	8.00	1	885	10.62	A once larger specimen appears to be in a state of ongoing decline and deterioration with substantial deadwood and evidence of stake heading throughout crown. Tree appears to offer limited sustainability and high likelihood of continued deterioration. Would be considered ill-suited for retention within the developed context.	Consider early removal.	N/A	U
198	Ash (<i>Fraxinus excelsior</i>)	M	G/F	16.00	2.00	5.50	5.50	5.00	5.50	1	525	6.30	Relatively young in comparison to near neighbours. General vigour and vitality appears good though concerns remain resulting from inability to review because of ivy cover.	Cut ivy and review after one year.	L	B2
199	Ash (<i>Fraxinus excelsior</i>)	E/M	F/P	10.00	1.50	4.50	4.50	3.00	3.00	1	462	5.54	A distorted and suckering specimen arising from what appears to be elevated embankment. Specimen is structurally poor not withstanding reasonable vigour and vitality.	Review regard retention context.	S	C2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
200	Ash (<i>Fraxinus excelsior</i>)	E/M	F	6.50	2.00	4.50	4.00	4.00	4.00	1	258	3.09	Distorted and unbalanced to north. Arises from top of substantially raised embankment relative to feel levels. General vigour is good though tree has developing ivy cover.		L	B2
201	Ash (<i>Fraxinus excelsior</i>)	E/M	F	11.00	3.00	4.50	4.50	4.50	4.50	1	462	5.54	Young and still vigorous but apparently arising from outside of site compounds but directly adjoining dilapidated masonry associated with what appears to be old gateway.	Review regarding clearance/demolition requirements of the fact this is likely to have a tree.	M	C2
202	Ash (<i>Fraxinus excelsior</i>)	E/M	F	12.00	3.00	5.00	4.00	2.00	3.00	1	407	4.89	Heavily unbalanced and north presumably as result of past suppression. Dense ivy cover prevents review at present though concerns exist regarding debris of collapsed tree that made of struck this specimen.	Cut ivy and re-evaluate. After one year.	M	C2
203	Ash (<i>Fraxinus excelsior</i>)	E/M	F	14.00	2.00	6.00	5.00	6.00	6.50	5	592	7.10	Large multi-stemmed group heavily obscured by dense ivy cover. General vigour and vitality appears good at present though concerns relate more to structural form and possible predisposition towards failure.	Cut ivy and review after one year.	M	C2
204	Ash (<i>Fraxinus excelsior</i>)	M	F	16.00	2.00	7.00	3.00	6.00	5.50	1	602	7.22	Distorted and one-sided as result of proximity to near neighbours. Multiple bifurcations and multi-stem stature raises concern regarding structural form. Ivy cover prevents detailed visual review at present.	Cut ivy and re-evaluate.	M	C2
205	Ash (<i>Fraxinus excelsior</i>) Group	M	F	16.00	2.00	6.00	3.00	5.50	3.00	2	557	6.68	Distorted having developed fanlike crown profile exacerbated to north and south. 2 stems combined to create broader crown form. Elevated position and multi-stem stature raises concern regarding sustainability, exacerbated by heavy ivy cover.	Cut ivy and re-evaluate. After one year.	M	C2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
206	Ash (<i>Fraxinus excelsior</i>)	E/M	P	10.00	3.00	1.00	1.00	4.00	3.00	1	379	4.55	Heavily distorted and whip-like specimen unbalanced to south west. Supports chronic ivy cover with minimal viable crown remaining.	Remove.	N/A	U
207	Ash (<i>Fraxinus excelsior</i>)	M	F	20.00	1.00	10.00	5.00	7.00	7.50	1	812	9.74	Large and somewhat distorted specimen of a form suggestive of a previously lost neighbour. Ivy cover. Is considered chronic and prevents detailed visual review at present. Visible elements of crown appear be maintaining reasonable vigour and vitality.	Cut ivy and review after one year.	M	C1-2
208	Ash (<i>Fraxinus excelsior</i>)	M/O M	P	21.00	2.50	12.00	10.00	12.00	10.00	1	1229	14.74	A particularly large specimen supporting chronic infection of Ganoderma about much of northern side of stem base, indicating extensive internal decay. Tree of this age can only deteriorate further. Unsuitable for attention.	Remove.	N/A	U
209	Ash (<i>Fraxinus excelsior</i>)	M	F	15.00	2.00	7.00	6.00	6.50	6.50	2	780	9.36	Twin-stemmed from ground level raising some concern regarding mechanical integrity. General vigour and vitality appears good though ivy development particularly about middle crown is obscured is full review at present.	Cut ivy and review regard retention context and after one year to allow for ivy death.	M	C2
210	Ash (<i>Fraxinus excelsior</i>)	E/M	P	15.00	2.50	5.00	7.00	4.00	0.00	1	430	5.16	A poor-quality specimen supporting chronic imbalance to east. Is of dubious retention merit.	Consider early removal.	N/A	U
211	Ash (<i>Fraxinus excelsior</i>)	M	F	15.00	2.00	6.00	6.00	5.00	6.00	1	586	7.03	Visible elements of crown appear be maintaining reasonable vigour and vitality however, much of crown is obscured by dense ivy cover.	Cut ivy and review after one year.	M	C2
212	Ash (<i>Fraxinus excelsior</i>)	M	F	15.00	2.50	6.00	5.00	5.00	5.00	1	452	5.42	Visible elements of crown appear be maintaining reasonable vigour and vitality however, much of crown is obscured by dense ivy cover.	Cut ivy and review after one year.	M	C2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
213	Ash (<i>Fraxinus excelsior</i>)	M	P	21.00	2.00	5.00	8.50	12.00	2.00	1	844	10.12	Has suffered chronic stem failure and has lost much of north-western crown. Unsuitable for attention.	Remove.	N/A	U
214	Ash (<i>Fraxinus excelsior</i>)	M	F	22.00	2.00	7.00	5.00	5.00	7.00	1	942	11.31	A large specimen of peculiar form suggesting limb loss or crown failure in past. Visible elements of crown appear to be maintaining reasonable vigour and vitality though much of central crown is heavily obscured by dense ivy cover.	Cut ivy and review after one year.	M	B1-2
215	Ash (<i>Fraxinus excelsior</i>)	M	G/F	18.00	2.50	5.50	5.50	6.50	7.00	1	624	7.49	Appears to be maintaining broadly good vigour and vitality. crown supports extensive ivy cover. Though not as extensive as some near neighbours.	Cut ivy and review.	L	B1-2
216	Ash (<i>Fraxinus excelsior</i>)	S/M	G/F	8.50	2.50	3.00	2.50	2.50	3.00	1	271	3.25	Young and still vigorous with immense potential for continued growth over time.		L	B2
217	Ash (<i>Fraxinus excelsior</i>)	M/O M	F	14.00	2.00	7.00	7.00	8.00	6.00	1	1592	19.10	A particularly broad and spreading community of stems that appear to arise from the same. Suggesting regeneration from the stump of a previous tree. Diverging crown form raises substantial concerns regarding structural integrity impossible predisposition towards mechanical failure. Ivy cover prevents detailed review at present. Exacerbating above concerns.	Cut ivy and review with regard retention context.	S	C2
218	Ash (<i>Fraxinus excelsior</i>)	M	P	13.00	2.00	7.00	6.50	6.50	7.00	1	748	8.98	A broad and spreading specimen affected by Ganoderma near ground level. Unsuitable for attention.	Remove.	N/A	U
219	Ash (<i>Fraxinus excelsior</i>)	E/M	F	15.00	5.00	6.00	4.00	2.50	1.00	1	395	4.74	Distorted and unbalanced to north. Is drawn up and whip-like raise concern regarding stability if exposed by loss of near neighbours.	Review regard retention context. Cut ivy and review after one year.	M	C2
220	Ash (<i>Fraxinus excelsior</i>)	E/M	F/P	12.00	2.00	6.00	3.00	0.00	5.00	1	382	4.58	Distorted and unbalanced to north because of suppression. Is of poor quality specimen.		M	C2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
221	Ash (<i>Fraxinus excelsior</i>)	M	G/F	14.00	1.50	5.00	6.50	7.00	6.00	1	560	6.72	Relatively young and still vigorous but supporting notable imbalance to south. Supports extensive ivy cover the prevents total visual review at present.	Cut ivy and review after one year. Review on regular basis.	L	B2
222	Ash (<i>Fraxinus excelsior</i>)	M	F	21.00	2.50	8.00	7.00	9.00	6.00	1	1022	12.26	A large specimen of variable vigour, noted to support both deadwood and evidence of localised storm damage. Ivy-covered chronic preventing detailed review at present.	Cut ivy and review after one year.	M	C1-2
223	Ash (<i>Fraxinus excelsior</i>)	E/M	F	17.00	1.50	2.50	4.00	7.00	4.50	1	548	6.57	Heavily unbalanced and typically unbalanced to south. Entire middle crown is enveloped in Ivy cover. Concern exists regarding sharply forked nature and stability of crown structure.	Cut Ivy and re-evaluate.	M	C2
224	Ash (<i>Fraxinus excelsior</i>)	M	F	17.00	2.00	7.00	3.00	4.50	6.00	1	739	8.86	Suppressed and typically unbalanced to north. Arises from position outside of boundary line.	Cut ivy and review after one year.	M	C2
225	Ash (<i>Fraxinus excelsior</i>)	S/M	F	7.50	1.50	3.00	4.00	4.00	1.50	1	229	2.75	Distorted because of proximity to near neighbour but remains vigorous and asserts immense potential for continued growth.		L	C2
226	Ash (<i>Fraxinus excelsior</i>)	E/M	G	14.00	2.50	5.00	5.00	5.00	5.00	1	430	5.16	Young and vigorous with immense potential for continued growth. Some concern exists considering extensive Ivy cover that prevents detailed visual appraisal at present.		L	B2
227	Ash (<i>Fraxinus excelsior</i>) Group	E/M	F	13.00	1.50	5.00	5.00	5.00	5.00	1	493	5.92	Appears to comprise a community of stem that combine to create a singular larger crown. Specimen is forked from ground level. Then concerns exist with regard mechanical integrity. Such concerns are exacerbated considering extensive Ivy cover that prevents detailed visual review at present.	Cut Ivy and re-evaluate.	M	C2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
228	Ash (<i>Fraxinus excelsior</i>)	M	F	13.00	2.00	5.50	7.00	7.00	3.00	1	535	6.42	Distorted and one sided. Arises from the perched position on top of particularly high embankment with stem base being positioned at circa 1.75 m above field level. Supporting embankment. Has suffered erosion resulting in root exposure. Note is made of prior collapse of tree immediately adjoining the specimen. Concerns exist regarding erosion related stability. crown is obscure by dense Ivy cover. Concerns are exacerbated considering trees position adjoining existing parking positions of neighbouring school. Concern exists regarding suitability for retention.		S	C2
229	Ash (<i>Fraxinus excelsior</i>)	E/M	F/P	12.00	2.50	7.00	4.50	4.50	6.00	1	420	5.04	Distorted, one-sided and arising from perched position on top of elevated embankment that has suffered notable erosion and collapse. Concerns exist regarding trees, stability and its position relative to car parking areas within the adjoining school.	Review in respect of retention context.	S	C2
230	Ash (<i>Fraxinus excelsior</i>)	E/M	F	13.00	3.00	5.50	3.50	2.50	1.00	1	379	4.55	Drawn up, whip-like but supporting imbalance to North. Arises from dilapidated and partially eroded embankment from position elevated above field levels. Drawn-up nature raises concern regarding stability if exposed.	Review regard retention context.	S	C2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
231	Ash (<i>Fraxinus excelsior</i>)	M	F/P	16.00	3.00	7.00	5.00	7.00	6.00	1	840	10.08	A particularly large specimen supported on a substantially eroded embankment with exposure affecting substantial proportion of root mass raising concern regarding tree stability, exacerbated considering position adjoining and overhanging adjoining car parking area. Substantial concerns exist regarding apparent safety. Concerns are exacerbated considering inability to review tree resulting from Ivy cover.	Review regard retention context.	S	C2
232	Ash (<i>Fraxinus excelsior</i>)	E/M	P	12.00	0.00	5.00	1.50	1.00	2.50	1	382	4.58	Drawn-up and whip-like, entirely enveloped in Ivy cover and supporting imbalance to North. Root base is upon eroded and partially collapsed embankment raising substantial concerns regarding likely stability, with concerns, exacerbated considering apparent partial failure of stem to West of stem base. Tree is of dubious retention merit.	Consider early removal.	N/A	U
233	Ash (<i>Fraxinus excelsior</i>)	M	F	18.00	4.50	5.00	5.00	9.50	4.50	1	551	6.61	Large specimen typically unbalanced to South. Tree arises from lower position on eroded embankment. The nonetheless, concerns exist regarding stability. Much of crown is obscure, preventing detailed visual review at present.	Cut Ivy and re-evaluate.	M	C2
234	Ash (<i>Fraxinus excelsior</i>)	M	F	17.00	2.50	8.00	2.50	8.00	8.00	1	560	6.72	Large but one-sided specimen typically unbalanced to West. Trees position substantially eroded embankment raising concerns regarding stability. Entire crown is obscure by dense Ivy cover preventing detailed visual appraisal. Concerns exist with regard trees proximity to adjoining school car parking.	Review regard retention context.	S	C2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
235	Ash (<i>Fraxinus excelsior</i>)	S/M	F	6.50	2.50	2.00	1.00	4.00	3.50	1	229	2.75	One-sided and distorted but vigorous and asserting immense potential for continued growth. Small stature would allow for ready replacement if required.		L	C2
236	Ash (<i>Fraxinus excelsior</i>)	S/M	F	9.50	3.00	1.00	0.00	3.50	3.00	1	239	2.86	Drawn-up, whip-like but suppressed and unbalanced to south-west. Small stature would allow for ready replacement.		S	C2
237	Ash (<i>Fraxinus excelsior</i>)	S/M	F	10.00	0.50	1.00	2.50	5.50	4.00	2	379	4.55	Compromised by basal fork and distortions resulting from suppression. Small stature would allow for replacement.		S	C2
238	Ash (<i>Fraxinus excelsior</i>)	S/M	G/F	10.00	2.50	3.50	4.50	4.50	3.00	1	280	3.36	Supports minor imbalance to south because of suppression. Lower crown support some deadwood. Ivy is developing on principal stem and about middle crown. Small stature would allow for replacement.	Review regard retention context.	L	C2
239	Ash (<i>Fraxinus excelsior</i>)	S/M	F	9.50	3.00	5.00	4.50	1.50	3.50	1	325	3.90	Suppressed, one-sided and unbalanced to North. Is currently entangled with utility pole.	Review regard retention context.	M	C2
240	Ash (<i>Fraxinus excelsior</i>)	S/M	F	9.00	2.00	2.00	5.00	4.50	4.00	2	347	4.16	Distorted and comprising 2 stems from ground level. Is of poor form though. Remains vigorous.		M	C2
241	Ash (<i>Fraxinus excelsior</i>)	S/M	F	9.00	3.00	1.50	2.50	2.00	3.50	1	226	2.71	A tall whip.		L	C2
242	Ash (<i>Fraxinus excelsior</i>) Group	S/M	F	8.50	2.50	3.50	2.00	2.00	3.50	1	204	2.44	2 close-proximity stems combined to create a singular crown that is unbalanced to north.		M	C2
243	Ash (<i>Fraxinus excelsior</i>)	S/M	G/F	9.50	4.00	4.50	4.00	2.00	3.00	1	226	2.71	Distorted and slightly unbalanced but maintaining reasonable vigour and vitality.		L	B2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
244	Wych Elm (<i>Ulmus glabra</i>)	S/M	F	10.00	2.00	4.50	5.00	4.50	2.50	1	347	4.16	One-sided because of suppression but is maintaining reasonable vigour and vitality. Concerns exist regarding sustainability and predisposition towards Dutch Elm disease attack.	Review regularly.	M	C2
245	Wych Elm (<i>Ulmus glabra</i>)	S/M	F	9.50	3.00	3.00	3.00	2.50	2.00	1	248	2.98	Slightly suppressed but maintaining reasonable vigour and vitality. Maybe predisposed to attack by Dutch Elm disease.		M	C2
246	Wych Elm (<i>Ulmus glabra</i>)	S/M	G/F	11.00	3.00	3.50	3.00	3.00	2.50	1	258	3.09	Young and still vigorous but may be pleased disposed to attack by Dutch Elm disease. Note is made of dead stem, 2.00 m south of subject. Stem.		M	B2
247	Wych Elm (<i>Ulmus glabra</i>)	S/M	D	6.50	3.00	1.00	2.00	1.50	1.50	1	175	2.10	Completely dead and seem to have been killed by Dutch Elm disease by exacerbated concerns regarding elms within general locale.	Remove.	N/A	U
248	Wych Elm (<i>Ulmus glabra</i>)	S/M	F	7.50	0.00	8.00	5.00	0.00	4.50	1	366	4.39	Chronically unbalanced and north east. Raises concern regarding sustainability considering known Dutch Elm disease within locale.	Review regularly.	M	C2
249	Ash (<i>Fraxinus excelsior</i>)	S/M	F	6.50	1.50	3.50	3.00	2.50	3.00	1	229	2.75	Young and still vigorous but of a stature that would allow for ready replacement.		L	B2
250	Wych Elm (<i>Ulmus glabra</i>)	S/M	G	11.00	1.75	4.50	4.50	4.50	4.50	1	309	3.71	Of good form and vigour suggesting some potential for retention. However, evidence of Dutch Elm disease within vicinity may readily undermine sustainability and ability to retain beyond short to medium term.		M	B2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
251	Wych Elm (<i>Ulmus glabra</i>)	S/M	G/F	9.00	1.00	4.50	4.50	4.50	4.50	1	261	3.13	A close-knit group combining to create a single crown form. Trees remain young and vigorous with immense potential for continued growth. However, evidence of Dutch Elm disease within local area suggests high potential for death within short to medium term.		M	B2
252	Ash (<i>Fraxinus excelsior</i>)	S	F	6.50	1.00	3.00	3.00	3.00	3.00	1	229	2.75	Young and vigorous sapling arising from boundary thicket. Small stature less ready replacement.		L	C2
253	Ash (<i>Fraxinus excelsior</i>)	S	F	6.50	1.00	2.00	2.00	2.00	2.00	1	223	2.67	Young and vigorous sapling arising from boundary thicket. Small stature less ready replacement.		L	C2
254	Ash (<i>Fraxinus excelsior</i>)	S/M	F	7.50	1.50	3.50	3.50	3.50	3.50	1	207	2.48	Is maintaining good general vigour and vitality. Tree sets immense potential for continued growth over time.		L	B2
255	Ash (<i>Fraxinus excelsior</i>)	S/M	F/P	7.50	1.50	3.00	7.00	7.00	4.00	1	605	7.26	Appears to comprise a large stump supporting small amount of sucker growth suggesting prior failure and loss of once larger tree. Structural form is particularly poor and will be subject to ongoing failure. Tree is unsuitable for retention.	Remove.	N/A	U
256	Ash (<i>Fraxinus excelsior</i>)	S/M	F	7.50	1.50	5.50	3.50	0.00	4.00	1	274	3.29	A young and still vigorous specimen supporting chronic imbalance to North raising some concern regarding longer term stability. Tree is of dubious retention merit.	Review in respect of retention context.	S	C2
257	Ash (<i>Fraxinus excelsior</i>)	M	P	7.00	1.00	7.00	8.00	5.00	4.50	1	910	10.92	A once larger tree has suffered traumatic failure and loss of entire stem, resulting in substantial decaying stump near ground level. Unsuitable for attention.	Remove	N/A	U
258	Ash (<i>Fraxinus excelsior</i>)	E/M	F	11.00	3.00	4.00	3.50	4.50	3.00	1	261	3.13	Suppressed, drawn-up and of mediocre form. General vigour appears good.		L	B2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
259	Ash (<i>Fraxinus excelsior</i>)	M	P	18.00	2.00	0.00	5.00	7.00	5.00	1	716	8.59	Once larger specimen has sustained chronic failure of crown with stem shattered at 3.00 m. Continue collapse inevitable.	Remove immediately.	N/A	U
260	Ash (<i>Fraxinus excelsior</i>)	M	F	13.00	2.00	5.50	5.00	5.00	5.50	1	548	6.57	Appears be maintaining reasonable vigour and vitality though much of crown is obscure by dense Ivy cover, preventing detailed visual review at present.	Cut Ivy and review after one year.	M	C2
261	Ash (<i>Fraxinus excelsior</i>) Group	E/M	F/P	14.00	2.00	5.00	5.50	5.50	4.50	5	716	8.59	Tree appears to comprise sucker regeneration from the stump of a previously damaged tree with stump area been subject to decay and fracture. Substantial concerns relate to sustainability and suitability for retention.	Consider early removal.	N/A	U
262	Ash (<i>Fraxinus excelsior</i>)	M	G/F	18.00	2.00	6.00	5.50	6.50	7.00	1	780	9.36	A large and spreading specimen supported on diverging stems. Vigour and vitality appears good at present however, extent of Ivy cover prevents detailed visual review.	Cut Ivy and review after one year.	M	C2
263	Ash (<i>Fraxinus excelsior</i>)	M	G/F	19.00	1.50	6.00	6.50	6.50	6.50	1	780	9.36	Large and aged specimen of apparently reasonable vigour and vitality. However, concern exists in respect to degree of Ivy cover and an inability to visually review at present.	Cut Ivy and review after one year.	L	B1-2
264	Ash (<i>Fraxinus excelsior</i>)	M	F	14.00	4.00	6.00	10.00	4.50	4.00	1	812	9.74	Large specimen apparently arising from position outside of boundary line and supporting extensive imbalance to east. General vigour and vitality appears good however extent of imbalance raises some concern regarding stability and sustainability.	Review regard retention context.	M	C2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
265	Ash (<i>Fraxinus excelsior</i>)	E/M	F/P	10.00	2.00	4.00	3.00	4.50	5.50	1	372	4.47	A young but distorted specimen arising from thicket development adjoining pond area. Vigour and vitality is variable. To retain tree will be intrinsically linked with retention or otherwise of the adjoining pond feature.		S	C2
266	Ash (<i>Fraxinus excelsior</i>) Group	E/M	F	13.00	1.50	4.50	5.00	5.00	5.50	1	462	5.54	Two proximity stems combined to create a singular crown form. General vigour and vitality appears good though much of crown is obscure by dense Ivy cover at present. Ability to retain tree will be intrinsically linked with retention or otherwise of the adjoining pond feature.		L	B2
267	Ash (<i>Fraxinus excelsior</i>)	E/M	F	10.00	3.00	4.50	4.50	5.00	4.50	1	347	4.16	Young and still vigorous, arising from raised embankment to pond area. Middle-crown is obscure by dense Ivy cover. Ability to retain is intrinsically linked with retention or otherwise of the adjoining pond.	Review regard retention context.	M	C2
268	Ash (<i>Fraxinus excelsior</i>)	S	P	6.00	0.00	2.50	2.50	2.50	2.50	6	366	4.39	Young and suckering mass arising from stump of previous tree. Is structurally poor.		S	C2
269	Ash (<i>Fraxinus excelsior</i>)	M	F	16.00	2.00	6.00	7.00	8.00	7.00	1	847	10.16	Large specimen of distorted form that which heavily obscured by Ivy cover is still suggestive of a once larger tree having sustained chronic mechanical failure. Such issues cannot be seen at present however. Substantial concerns exist regarding sustainability.	Cut Ivy and rereview. In respect of suitability for retention.	S	C2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
270	Ash (<i>Fraxinus excelsior</i>)	M	F	23.00	2.00	9.00	9.00	12.00	13.00	1	1031	12.38	A particularly large and aged specimen of reasonable vigour and vitality but exhibiting evidence of widespread, typically localised mechanical failure and breakage. Tree supports extensive and onerous degree of Ivy that prevents detailed review at present. Visible elements of prior history raised substantial concerns in respect of suitability for retention.	Cut Ivy and review after one year.	M	C1-2
271	Ash (<i>Fraxinus excelsior</i>)	S/M	P	4.50	2.00	5.00	0.00	0.00	6.00	1	274	3.29	Chronically unbalanced and appears likely to have suffered partial collapse.	Remove.	N/A	U
272	Ash (<i>Fraxinus excelsior</i>)	M	P	20.00	8.00	6.00	4.00	2.50	3.00	1	866	10.39	A tall and columnar specimen of a form suggestive of prior failure, a factor apparently illustrated by substantial tree debris located immediately south of stem. General vigour and vitality appears good however degree to which tree appears exposed. Raises substantial concerns in respect of suitability for retention.	Cut Ivy and re-evaluate. After one year.	S	C1-2
273	Ash (<i>Fraxinus excelsior</i>)	M	P	16.00	4.50	6.00	4.00	4.00	5.00	1	611	7.33	Heavily unbalanced to north and of a form that is suggestive of prior mechanical failure and crown loss. All the apex of tree is wholly enveloped in Ivy cover. Tree is of poor quality and ill-suited to retention.		N/A	U
274	Ash (<i>Fraxinus excelsior</i>)	M	F	27.00	5.00	8.00	7.00	10.00	5.00	1	933	11.19	A particularly large specimen of reasonable vigour and vitality but exhibiting signs of prior mechanical failure and limb loss. Extent of Ivy cover prevents detailed visual review at present and thus extent of prior damage remains unknown. Tree must be regarded as being particularly large and its retention would be context dependent.	Cut Ivy and review after one year.	S	C1-2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
275	Ash (<i>Fraxinus excelsior</i>)	M	F	25.00	2.00	9.00	7.00	10.00	14.00	1	993	11.92	A particularly large specimen supporting nominal imbalance to west. Tree arises from raised and substantially eroded embankment revealing evidence of widespread root exposure. Concerns exist in respect of tree stability. Additionally, extent of Ivy cover prevents detailed review at present raising concerns regarding true nature of tree.	Cut Ivy and review after one year.	S	C1-2
276	Ash (<i>Fraxinus excelsior</i>) Group	E/M	F	12.00	1.50	6.00	5.00	4.50	5.00	3	452	5.42	An untidy and multi-stemmed group, supporting nominal imbalance to north-west. General vigour and vitality is good though structural form is considered poor. Developing Ivy cover is obscuring crown from view.	Cut Ivy and review.	M	C2
277	Ash (<i>Fraxinus excelsior</i>)	E/M	F/P	11.00	4.50	7.00	4.00	2.50	5.00	1	312	3.74	Heavily suppressed as result of position beneath canopy of adjoining larger tree and supports extensive imbalance to north and north-east. Quality of tree is poor.	Review regard retention context.	S	C2
278	Ash (<i>Fraxinus excelsior</i>)	M	G/F	15.00	2.00	5.50	6.00	6.00	6.00	1	681	8.17	Large specimen arising from embankment but on golf course side of fence. Vigour and vitality appears good though crown is partially obscured by Ivy cover.	Cut Ivy and review regularly.	L	B2
279	Ash (<i>Fraxinus excelsior</i>)	M	F	13.00	2.00	6.00	5.00	5.00	7.00	1	592	7.10	Heavily distorted and of peculiar form, presumably as result of proximity to near neighbours. Lower north-western crown obscured from Ivy, could be indicative of prior mechanical failure. Tree is of poor quality and dubious retention merit.	Review regard retention context.	S	C2
280	Ash (<i>Fraxinus excelsior</i>)	M	G/F	19.00	4.00	9.00	7.00	8.00	7.50	1	879	10.54	Large and spreading specimen heavily enveloped with Ivy cover preventing detailed review at present. General vigour and vitality nonetheless appears good.	Cut Ivy and review.	L	B1-2

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
281	Sycamore (<i>Acer pseudoplatanus</i>)	M	F	17.00	1.50	7.50	7.50	8.00	7.50	1	910	10.92	A broad and spreading specimen of a form suggestive of possible apex loss or crown damage. Concerns exist as review is prevented by dense Ivy cover at present. Tree vigour and vitality remains good.	Cut Ivy and review.	M	C2
282	Ash (<i>Fraxinus excelsior</i>)	M	G/F	15.00	2.50	6.00	5.00	5.00	4.50	1	535	6.42	Slightly suppressed, particularly at lower levels. Levels because of proximity to near neighbour. General vigour and vitality appears good though. Entire middle crown is obscure by dense Ivy cover.	Cut Ivy and review.	M	C2
283	Ash (<i>Fraxinus excelsior</i>)	E/M	F/P	11.00	4.00	3.00	0.00	4.00	4.50	1	293	3.51	Heavily distorted specimen because of position near larger neighbour. Is of poor quality and dubious retention merit.	Consider early removal.	N/A	U
284	Sycamore (<i>Acer pseudoplatanus</i>)	M	P	18.00	1.50	8.00	7.50	7.00	8.50	1	993	11.92	Large and spreading specimen arising from elevated position on eroded embankment and affected by substantial and widespread decay at ground level. Concerns exist regarding stability and sustainability.	Consider early removal.	N/A	U
285	Ash (<i>Fraxinus excelsior</i>)	E/M	P	12.00	2.50	5.00	5.00	6.50	5.00	2	398	4.77	Large suckering specimen apparently arising from the decaying stump of a previous tree, raising substantial concern regarding deterioration ongoing decay and stability. Tree is of poor quality and is unsuitable for retention.	Remove.	N/A	U

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat	
	Site Hedges Hawthorn (<i>Crataegus monogyna</i>) Blackthorn (<i>Prunus spinosa</i>) Bramble (<i>Rubus fruticosus</i>) Dog Rose (<i>Rosa canina</i>) Elder (<i>Sambucus nigra</i>) Ivy (<i>Hedera helix</i>) Sycamore (<i>Acer pseudoplatanus</i>) Ash (<i>Fraxinus excelsior</i>) Wych Elm (<i>Ulmus glabra</i>)	M	F	4.00-7.00	0.00-1.50		Spread 5.00-10.00 Variable				m/s	255	3.06	The site hedges often large but intermittent and broken but once dominated by Hawthorn. Many are affected by thicket development extending up to 15.00 m from the boundary alignment being dominated by Blackthorn and Bramble. The emergence of tree specimens has led to substantial suppression and thus continuity within the original Hawthorn alignment is disjointed. This has been exacerbated in certain positions where combinations of Bramble, Blackthorn and elder have added to the suppression. Should a vegetative alignment be required in this place then it must be appreciated that the removal of invasive and extending species such Blackthorn and Bramble will substantially diminish the existing hedge profile and will see its loss at various positions. Accordingly, any vegetative alignment will be subject to replacement planting. Attention must be paid to the anomalous topography of the hedgerows and the inclusion of often substantial raised embankments, whose retention and conservation is intrinsically linked to the retention of the hedge.		L	C2