

**Arboricultural Report  
Proposed Development at  
The Lord Mayor's Public House  
Main Street  
Swords**

**February 2019**

**The Tree File Ltd  
Consulting Arborists  
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### Associated Drawings

This report must be read in conjunction with the drawings noted below

<u>Drawing Title</u>	<u>Drawing Subject</u>
1) <b>D1-TCP-Swords-02-20</b>	<b>Tree Constraints Plan</b> A plan depicting the predevelopment location, size, calculated constraints and simplified tree quality category system
2) <b>D2-AIA-Swords-02-20</b>	<b>Tree Impacts Plan</b> This plan represents the effects of the proposed development works on the above tree population and depicts trees to be retained and removed.
3) <b>D3-TPP-Swords-02-20</b>	<b>Tree Protection Plan</b> This plan depicts the nature, location and extent of tree protection measures required to provide for sustainable tree retention.

## **Introduction**

This report was commissioned by-

**Jacko Investments Limited**

Brigean,  
Rathbeale Road,  
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Co. Dublin

This report has been prepared by-

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## **Report Brief**

An Arboricultural report has been requested in respect of the proposed development. As “BS5837: 2012 Trees in Relation to Design, Demolition and Construction – Recommendations” is the broadly accepted frameworks for such reports, then its composition, inclusions and recommendations have been followed as a general basis for such reporting.

## **Report Context**

This report comprises an Arboricultural review of the proposed development project. This includes an assessment of the sites existing tree population within its current context, as well as an assessment of their potential for sustainable retention in the post-development scenario and the likely effects and repercussions of the development and construction process upon those trees. It also provides information regarding the necessary tree protection and the avoidance of damage to trees during the construction process, necessary to achieve sustainable tree retention.

This assessment summarises the Arborists findings and recommendations, arrived at after reviewing the proposed project details as provided, and after an evaluation of trees as defined and described in the tree survey at “Appendix 2”. This report also includes a preliminary “Arboricultural Method Statement” at “Appendix 1” as well as a Tree Protection Plan that illustrates the requisite conservation and protection methodologies necessary to maintain tree sustainability. This report is not intended as a critique of the proposed development but is an impartial assessment of the development implications relating to the sustainable retention of trees, whether that be any, some or all trees. This report is for planning purposes only and may be deficient for construction phase use.

## **Report Limitations**

This report relates the Arborists interpretation of information provided to him before the report compilation and gained by him 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 2” of this report. The findings and recommendations made within this report are compiled, based upon the knowledge and expertise of the inspecting Arborist.

The “Implication Assessment” element of the report builds on assumptions and estimates, particularly in respect of how construction works might proceed on a day to day basis and appreciates the “design” stage of the project, as opposed to “detail design” or “construction” detail. Many elements of the “Arboricultural Method Statement” are deliberately broad and generic. They will require review, amendment and consolidation at the construction stage, for example in respect of the size and nature of the equipment, plant and machinery that might be utilised by any potential building contractor and any details as may change at “detail design” or “construction detail” stages. Accordingly, the accuracy of this assessment premised on all its elements/recommendations, and the omission or alteration of any part can radically alter outcomes in respect of sustainable tree retention.

## **Report Summary**

The site supports a diverse tree population, including recently planted trees, associated with the landscaped areas of the existing public house context as well as substantial areas of natural regeneration, dominated by lapsed agricultural field boundary hedges and new thicket including Bramble, Sycamore, Goat Willow, Buddleia and Common Alder.

The stature of material on the site tends to be broadly small, with few trees offering any significant landscape impacts, other than those adjoining the eastern roadside boundary.

The proposed development will see much of the site area affected by significant excavation and modification and accordingly there is limited potential to retain existing vegetation. This is limited to the northernmost portion of the site, where the current stream profile is to be retained, together with a Common Alder, a Crack Willow and a Sycamore, Nos. 1919, 1920 and 1921 respectively.

In respect of their protection during the construction period, attention is drawn the Arboricultural Method Statement provided at “Appendix 1” to this report. In respect of this method statement, the primary form of tree protection in this instance will involve the use of simple tree protection fencing/hoarding so as to separate the tree protection areas from the broader construction site area as defined on the tree protection plan drawing “D3-TPP-Swards-02-20” and depicted by the orange dashed line representing the protection hoarding line and the orange dashed area representing the construction exclusion zone.

Notwithstanding the above and appreciating that much of the site’s existing vegetation is either of broadly small stature or that it comprises natural regeneration that may be of questionable worth within a newly developed landscape, then consideration should be given to new and replacement planting, including the use of context specific and suitable trees, installed in a sustainable manner within the new landscape context.

## **Site Description**

The site in question is adjoined and bounded by Church Road and its associated stream along its eastern side. The southern boundary of the site appears to comprise the main street in swords and includes the existing Lord Mayor public house. The western portion of the southern boundary comprises the rear boundaries of neighbouring properties, is indistinct and currently defined by a broad, nebulous hedge.

The sites western boundary at its southern end is again defined by an ill-defined hedge that appears to exist in conjunction with a ditch and embankment scenario and adjoining footpath. The northern path part of the western boundary supports much of the same hedge though is adjoined by a stream that acts as a physiological boundary to the site.

Whilst the southern portion of the site is hugely artificial both in respect to its support of hard surfaces, existing buildings and a planted landscape, the northern western element of the

site are disused, overgrown and appear to relate to a prior agricultural landscape that may have been defined/divided by Hawthorn-based hedges.

### **Pre-Development Arboricultural Scenario**

The site supports a diverse tree population in respect of age, size and quality.

In and about the environs of the Lord Mayor public house and its car parking area, we find a hugely artificial and broadly well-maintained landscape that supports several ornamental trees including Jacquemont's Birch, Horse Chestnut, Sycamore, Silver Birch, Willow and extensive shrub plantings. For the most part, these trees tend to be relatively young or early mature in age profile and many are of good quality however, some specimens and particularly Norway Maple No.1926 and Willow No.1927 found to be particularly poor condition and Chestnut No.1930 is already dead.

These trees exist in conjunction with existing artificial environments some trees being constrained by an existing watercourse and car park, others arising from managed and artificial landscaped areas. Accordingly, the ability to retain such trees will relate not only to their health and sustainability but also to the ability to maintain and preserve the ground features upon which they are supported.

Note has been made of some trees located outside of the site boundaries and particularly, "Tree Group 1" to the west of the main public house buildings. These trees appear to arise from the neighbouring property but, comprising Birch and Sycamore and that such proximity to the boundary wall, raise tangible issues of sustainability in respect of encroachment and potential for causing structural damage to adjoining features.

To the west and north of the site, we appear to be dealing with an old agricultural field format that appears to have been broadly unmanaged for some time. The only current science management relate to ESB input and particularly, the decapitation of trees both in the middle of the site and adjoining Church Road to the east where a substantial number of relatively young trees have suffered notable damage both regarding their appearance and their structural form.

The dominant large vegetative elements in this area comprise "Hedge 3" and "Hedge 4" to the west of the site. Both hedges exhibit evidence of once having comprised continuous Hawthorn hedges however at this time, they are dilapidated and lapsed with broader continuity now been provided more by a combination of Bramble thicket elder and Hawthorn rather than the original hedge. Hedge 3 is broadly inaccessible at present and the boundary position is indistinct. Hedge 4 appears to exist in conjunction with an earthwork such as a ditch and embankment that is currently adjoined on its western side by a footpath.

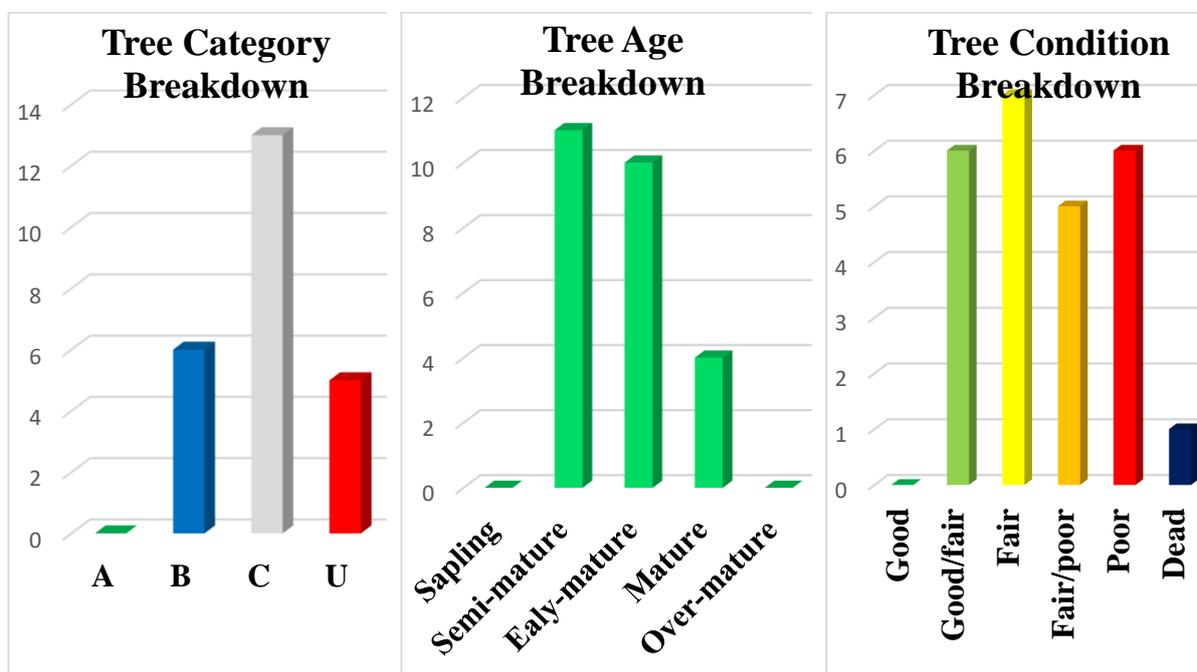
Both hedges are of mediocre to poor quality and will raise issues regarding potential for retention and management if retained. Eradication of invasive species will see a massive

diminution continuity and cover levels and thus would raise issues of suitability for retention and a choice between augmentation or replacement with new plantings.

Progressing to the north of the site, the northern half of “Hedge 4” is adjoined by a stream that acts as a physiological barrier and boundary to the site. In this area, any semblance original hedge has become overwhelmed and suppressed by what has become commonplace Common Alder regeneration throughout this area of the site. As noted above, many of these trees been decapitated to provide minimum clearance for overhead ESB high tension power cables though numerous individual, typically small and young specimens remain. There may be some potential for these trees to be retained however, there potential mature size should be considered as should the ease with which they might be replaced with new nursery stock.

As mentioned above, the retention of any of the above material will be contingent on an ability to maintain existing ground environments in positions within the nominal root protection area of such trees.

As can be seen from the graphs below, tree qualities tend to be somewhat mediocre overall. The age profile tends to be very young, with much of the site dominated by new planting of natural regeneration. It is only the site’s hedges that add an notable maturity. Notwithstanding the site’s broadly young age profile, the condition breakdown shows now dominance of better condition trees, with the overall breakdown being notable spread over a wide array of conditions.



## **Construction Works and Likely Impacts**

The combination of diverse levels across the site, the required modification of an existing stream and the proposal to create a substantial basement means that much of the site area will undergo substantial modification, including excavation and changes in levels.

Particularly, it must be noted that construction related activities, particularly access, trafficking, or any other process that can result in the compaction, compression, capping, panning or sealing of the soil, as well as its contamination or any other action that may affect its porosity, breathability or hydrology, can readily render soils incapable of supporting trees that may have grown there in the past.

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 and access. Additionally, it is noted that the proposed development will require some amendments to current ground levels across 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. A 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.
- d. A change in site context or a change in occupation or use that makes a tree unsuitable for retention.

## **Design Iterations and Arboricultural Considerations**

This report relates to clause 4.4.2.1 of BS5837-2012 in that its findings relate to a predefined concept that was issues for review. Accordingly, the report assesses Arboricultural implications and impacts of the proposals, making recommendations in respect of tree protection relating to those trees that might be retained and as outlined below.

From the outset, the entire design team was made aware of the limited nature and extent of trees both upon and adjoining the site area. Accordingly, there was an early appreciation of the fact that much of the site’s tree population comprised naturally arising thicket and scrub development and that the better-quality trees tended to be of limited stature.

While much of the site area will see immense degrees of modification, there appears to be some scope to amend current proposals, for example in respect of landscape and pathway works. Particularly to the north of the site, there appears to be some scope to retain tree Nos.1919 to 1922 as well as some of the adjoining scrub thicket, though this would require the

redesign of the landscape in that area, including the re-routing of the footpath and the omission of the stream modification works near the trees.

## **Identification of Impacts**

The review of likely Arboricultural implications is based upon the recommendations and criteria as defined within BS5837: 2012 Trees in Relation to Design, Demolition and Construction – Recommendations. The assessment attempts to consider both direct and indirect implications, based on construction requirements in respect of tree constraints, the effects of services provision and how these will affect tree retention. Additional considerations would include how trees will likely interact with the development over time in respect of growth, hazard development, light blockage and other social concerns in respect of the changing use of the space that supports the trees, including its effect on tree amenity value. The design process is also considered in respect of its adoption of potentially mitigating amendments, as well mitigation by way of new planting.

This report, its findings and recommendations have arisen from the scrutiny of development proposal drawings as provided by Aughey O’Flaherty Architects, including AutoCAD drawing “1808\_P\_Plan\_Ground.dwg”, drainage and levels information as provided by CORA Consulting Engineers in the form of AutoCAD drawing “1867 - C0001-C0009 - Drainage.dwg”, and by Mitchell and Associates Landscape Architects in the form of AutoCAD drawing “LSWO010 0100 Landscape Masterplan.dwg”, 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 it 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 “D2-AIA-Swords-02-20”, where trees denoted with “Broken Red” crown outlines will be removed and those denoted with “Continuous Green” crown outlines will be retained.

## **Arboricultural Implications of Proposed Development**

The proposed development will comprise-

(i) Demolition of the existing 1-3 storey public house, restaurant, off-licence and associated storage buildings (totalling 1,197sq.m) and removal of associated surface car park; (ii) construction of a residential development providing a total of 172 no. residential apartments (comprising 67 no. one-bed units, 101 no. two-bed units and 4 no. two-bed units) in 4 no. four-seven storey blocks over basement. Each apartment has associated private open space in the form of a ground floor terrace or a balcony and has access to 3 no. communal amenity spaces (totalling 296sqm), including a communal gym (77sqm), and a ground floor level landscaped courtyard. The development is served by an underground carpark (accessed from Church Road) providing a total of 132 no. parking spaces (including 6 no. mobility impaired user parking spaces and 5 no. car club parking spaces), and 408 no. bicycle spaces (336 no. resident spaces at basement level and 72 no. visitor spaces at ground floor level in the central courtyard); (iii) 2 no. commercial units (comprising 394sqm and 296sqm and accommodating Class 1, 2 and 8 uses as per the Planning and Development Regulations, 2001-2019, as amended); a 235sqm creche and 87sqm café at ground floor level; (iv) removal of existing culverts, installation of new culverts to facilitate pedestrian and vehicular access and diversion of the Glebe Stream on site; and (v) associated site and infrastructural works are also proposed which include: foul and surface water drainage; attenuation tanks; lighting; landscaping; boundary fences; plant areas; ESB substations; internal hard landscaping, including footpaths and street furniture; and all associated site development works.

The proposed development and its constituent parts that comply with current development expectations and planning densities, require the unavoidable consumption of space to provide for the proposed apartment blocks and basement structures, access roads and paths, as well as various other services and facilities. Accordingly, the development will result in the unavoidable loss of site trees, with the retention of a number of existing trees to the north of the site, as depicted on drawings “D2-AIA-Swords-02-20” and “D3-TTP-Swords-02-20”.

The extent of tree planting envisaged across the site will in part mitigate the above losses. Details have been provided within the proposed landscape plans as provided by Mitchell Associates Landscape Architecture.

### **Tree Retention and Loss**

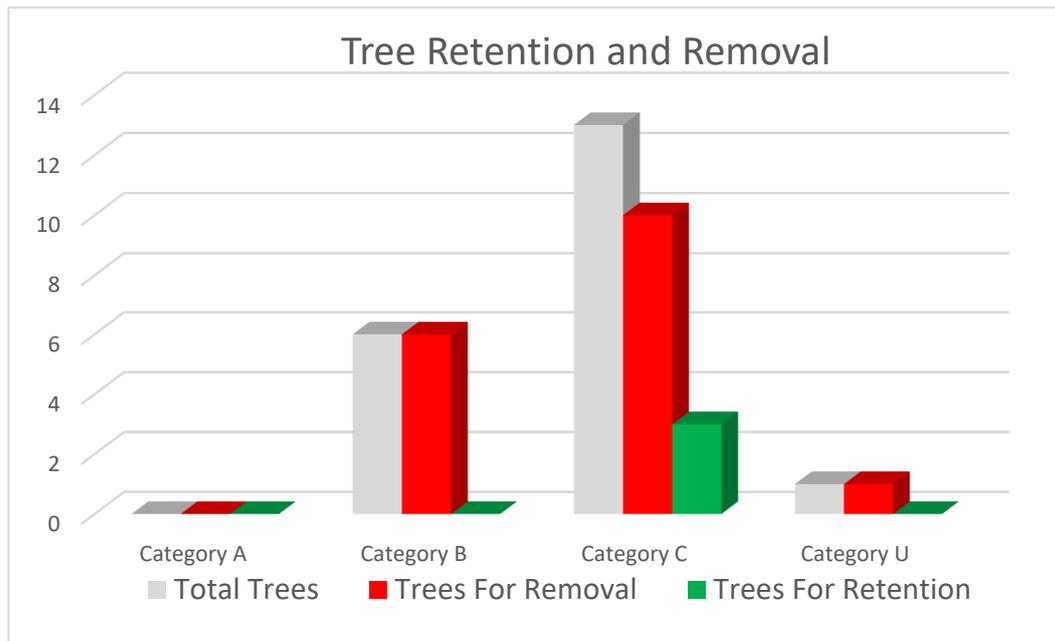
The pre-development review area supports a total of 17No. individual trees and 8No. tree groups (containing multiple specimens of trees or shrubs), totalling some 25No. described items, including-

- 0 category “A” trees,
- 0 category “A” groups
- 6No, category “B” trees (Nos.1923, 1925, 1931, 1933, 1934 and 1935)
- 0 category “B” groups
- 7No. category “C” trees (Nos.1919, 1920, 1921, 1922, 1926, 1929 and 1932)
- 6No. category “C” groups (Nos. SG1 and TG1, THG1, H1, H3 and H4)
- 4No. category “U” trees 1924, 1927, 1928 and 1930)

- 1No. category “U” group Nos.H2)

Of the above vegetation, a majority will be removed including all hedge, scrub and thicket material, however three trees to the north of the site area will be retained, including Common Alder No.1919, Crack Willow No.1920 and Sycamore No.1921.

The drawing “D2-AIA-Swords-02-20” 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 removed, being denoted by red dashed outlines.



### **Tree Protection within the Scope of a Development**

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

In respect of tree protection, whether vertical or horizontal, all 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.

Attention is drawn to the “Preliminary Arboricultural Method Statement” at “Appendix 1” to this report, as well as the associated “Tree Protection Plan” drawing “D3-TPP-Swords-02-20”.

In this drawing, the edges of the “Construction Exclusion Zone” are defined by the bold “Orange” lines that represent the proposed location of the primary protective “Construction

Exclusion Fencing”, with the “Orange” hatched area representing the primary “Construction Exclusion Zone”.

The above drawing provides only a representation of the protection locations and extents that must be located, positioned and erected under the guidance of the project Arborist and may require referral to a figured and dimensioned version of the “Tree Protection Plan” drawing. All recommended protection measures will be installed before the commencement of any site works and must remain in situ (unless under the guidance of the site Arborist) until the completion of all site works.

### **Preliminary Management Recommendations**

Provided in the tree survey table (Table 1) are “Preliminary Management Recommendations”. These recommendations relate to the trees as they existed at the time of the tree review and therefore and in line with the changing context of the site, such recommendations may no longer apply. Examples include where the felling of trees or other specific works are necessary to facilitate development requirements.

Many of the concerns raised in the tree survey relate to evidence suggesting mechanical failure to trees, ill-health or contextual issues that may continue to a point where a trees suitability for retention may change over time.

Additionally, the proposed development and particularly its unavoidable loss of trees will raise exposure and shelter loss issues in respect of those trees that will remain. For this reason, all retained trees should be reviewed immediately after the primary site clearance works with a view to updating and amending the “preliminary management recommendations” provided in the original tree survey and intending to address such issues as may arise. On an ongoing basis, all retained trees must be reviewed regularly so that early intervention and action is applied promptly.

## **Appendix 1 - Arboricultural Method Statement (and Tree Protection Plan)**

### **Method Statement Outline**

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 and tree protection on typical development sites. This statement intends to instruct and to advise regarding the execution of the proposed development works in a manner that will be least detrimental to the retained tree population.

### **Drawings**

This Arboricultural Method Statement must be read with the associated “Tree Protection Plan” drawing, “D3-TPP-Swords-02-20”. This drawing must be updated and confirmed for “Construction” stage purposes, for example by the inclusion of specific tree protection ranges and dimensions. Accordingly, and in respect of tree protection ranges from any tree, reference must be made to the root protection area radius as defined for that tree within the tree survey table.

### **Method Statement Use**

This Method Statement should be used under the direct guidance of the project Arborist. As limited “construction stage” detail was available at compilation time then as site/project specific issues arise, and as new information becomes available, it may require amendment and adjustment to address project-specific issues.

### **Amendments and Modifications**

In some situations, and with the adoption of specific ground protection procedures and structures, parts of the above defined “Construction Exclusion Zones” might still be utilised during the construction process. In respect of vehicular/plant/machinery access, the provision of suitable ground protection measures that avoid soil compaction and maintain drainage/percolation and breathability, that 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. 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 exclude and provide access to and across the newly protected areas.

### **Works Related Impacts**

In respect of any necessary and unavoidable structures required within or entry into the “RPA” zone, all efforts must be made to minimise impacts. Aerial issues may require “access facilitation pruning” or clearance pruning. Subterranean works that require excavation must, by design, location and action, minimise impacts to trees. 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, may be required. All such works must be undertaken under the guidance of the project Arborist who will advise on likely repercussions and necessary tree management issues.

## **Tree Works Specification Updates**

It must 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, relate to a changing site context and may no longer be applicable, or may require modification to account for the changes that the built project will cause.

## **General Method Statement**

Any 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 and Implementation**

- 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 or access.**
- 1.2 A review must be undertaken to identify any issues as may have arisen in respect of planning conditions or details as may have changed between the design stage and construction stage development details.
- 1.2 The project Arborist or another 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.
- 1.3 The tree constraints (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 by, and agreement with, the project Arborist.
- 1.4 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.
- 1.5 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) Works Sequence**

- 2.1 No construction related works or mechanised site access will occur until the agreed level of tree protection, in accordance with the “Tree Protection Plan”, is completed.
- 2.2 The only exception to the above will relate to the undertaking of tree works including tree felling and cutting as defined in the Arboricultural report.
- 2.3 The Project Arborist will oversee and liaise with the tree works contractor regarding the nature and extent of tree/woodland access to facilitate felling works.
- 2.4 On completion of the felling works, the tree management plan will be reviewed by the Project Arborist to address changed context, land use, rates of occupation and use and to account for potential impacts upon the newly built environment, thereby amending (if necessary) the “preliminary Management Recommendations” stipulated in the original Tree Survey.

- 2.5 Any revised pruning/cutting works will be agreed with the local authority and applied at the earliest possible opportunity.
- 2.6 After the completion of primary tree clearance but prior to the commencement of construction works, all “Construction Exclusion” and “Protective” fencing must be erected and “signed-off” as complete by the Project Arborist.
- 2.7 Only on completion of all construction works will any/all tree protective measures be removed, and only then 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 Project Arborist.
- 2.8 At construction works completion stage, all retained trees will be reviewed regarding the condition and longer-term management recommendations and regarding site hand-over.

### **3.0) Tree Protection**

- 3.1 All tree protection measures must be agreed, overseen and verified by the Project Arborist prior to works commencement and regarding maintenance for the duration of site works
- 3.2 Tree protection will be based upon drawings “D3-TPP-Swords-02-20” (Construction version) that relates to all trees for retention, as well as the location of all tree protection measures.
- 3.3 Unless specifically stipulated by the project Arborist, the default minimum range of protective fencing or construction exclusion fencing is the range stipulated in the primary tree survey for that tree and within the “RPA” (root protection area) column.
- 3.4 If entry into the “RPA” (Root Protection Area) zones becomes unavoidable, ground protection systems agreed with the project Arborist, that allow for the relocation of the “Construction Exclusion Fencing”, will provide for an extension of accessible ground space.
- 3.5 All construction, works or access areas must be enclosed and defined by protective fencing, this comprising the “Construction Exclusion Zone”
- 3.6 Such a fence must be fit for purpose and commensurate with the nature of activity expected upon the site and should be 2.00 metres in height, constructed of robust materials and be suitably braced to withstand impact and may include sheet panels attached to timber posts or weld-mesh panels supported upon a scaffold bar system. All footings must be firm and immobile and must not use mobile rubber or cement footings, (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)
- 3.7 The fence should be affixed with notification signs such as “TREE PROTECTION AREA - KEEP OUT”
- 3.8 Where applicable, structures such as “lock-ups”, offices or other temporary site building, not requiring excavation or underground ducting, might be positioned such as to comprise part of the “Construction Exclusion Zone” fencing. All remaining fencing must be continuous with such features and effectively prevents access to protected ground.
- 3.9 No amendment, alteration, relocation or removal of the tree protection fencing shall occur without prior liaison and approval from the Project Arborist.

### **4.0) Provision of Ground Protection (If Required)**

- 4.1 No vehicular/mechanised access whatsoever will be allowed onto unprotected ground.

- 4.2 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.
- 4.3 Any system utilised must effectively spread load-weight, avoid compaction, maintain drainage/percolation/aeration and be installed in a manner that avoids these issues.
- 4.4 Newly provided access will be strictly limited to the area of the new structure
- 4.5 Where proprietary ground protection systems are utilised, it is imperative that the manufacturer's specifications and recommendations are adhered to in full regarding the provision and installation of this type of ground protection.
- 4.6 Protection installation will require a progressive laying down of ground protection, with previously laid material providing vehicular access to the next zone will be accepted as an approved methodology.

## **5.0) Works within "RPA" Zone**

- 5.1 Only works and construction practices, agreed with the Project Arborist prior to commencement, will be allowed in the "RPA" area.
- 5.2 The "RPA" zone associated with all retained trees must be protected from the effects of construction works.
- 5.3 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.
- 5.4 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.
- 5.5 Preference must be given to manual labour and techniques within the fenced "RPA" zone.
- 5.6 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.

## **6.0) Service Installation**

- 6.1 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.
- 6.2 Any such works found to be unavoidable, 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)
- 6.3 No open trenching will be allowed. All works must be commensurate with the preservation of the affected tree root system.
- 6.4 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.
- 6.5 All works carried out within the "RPA" zone or "Construction Exclusion Zone" must be agreed with and supervised by the Project Arborist.

## **7.0) Tree Management and Works**

- 7.1 All tree works should be undertaken under the guidance of the project Arborist
- 7.2 The primary site clearance and felling should be undertaken at the earliest stage of the overall development works, to enable the re-assessment of all ostensibly retainable trees in respect of possible amendments to the “Preliminary Management Recommendations” and to account for context changes and construction access and/or other issues coming to light.
- 7.3 All Tree Works must adopt safe work procedures and must be undertaken by staff suitably trained for the purpose at hand and compliant with all legislative, safety and insurance requirements.
- 7.4 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.
- 7.5 All additional works will be agreed with the local authority and/or other stakeholders and applied at the earliest possible opportunity.
- 7.6 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.
- 7.7 On completion of site works, the retained tree population will be reviewed and re-evaluated regarding its ongoing condition and the likely requirements of any ongoing or future monitoring or management needs.

## **8.0) Demolition**

- 8.1 All demolition procedures must be agreed and overseen by the Project Arborist or other suitably skilled staff to monitor for damage and to protect exposed roots/cut-trim exposed roots/oversee backfilling of exposed roots.
- 8.2 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.
- 8.3 Care will be taken to avoid damage to soil volumes beneath and adjoining demolished structures that may contain tree root material.
- 8.4 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.
- 8.5 Where tree(s) 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).
- 8.6 Underground structures (services etc.) within the “RPA” zone should be reviewed with regards to decommissioning and retention in situ in the interest of avoiding tree damage.
- 8.7 Preference should be given to the retention existing sub-bases where hard surfaces are removed, particularly if the hard surface is to be replaced.

## **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.
- 9.11 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.
- 9.12 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.

## **Appendix 1 - Tree Survey**

### **Nature of Survey**

The criteria put forward in “BS5837:2012 – Trees in Relation to Design, Demolition and Construction – Recommendations” have provided a basis for this report.

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, its findings and management recommendations relate to the site and the conditions thereon at the time of the survey. It relates to a “do nothing” or “as is” scenario and intends to provide an impartial representation of the sites tree population, regardless of any possible development works. It is likely that changes in site usage, development or other environmental changes will require an amendment of a tree’s potential retention status and its preliminary management recommendations and in some instances, may require the re-classification of a tree’s suitability for retention.

### **Drawing References**

The survey must be read with the “Tree Constraints Plan” drawing “D1-TCP-Swords-02-20” regarding the representation of tree positions, crown forms, “RPA” extents and colour reference to category systems. Trees omitted from the supplied drawing may be “sketched in” to “D1-TCP-Swords-02-20”. Any such trees should be located and plotted by professional means to identify the constraints such trees have upon the site.

A green coloured outline represents each tree crown. It is 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 see below) denoted as a dashed orange circle.

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 by the four cardinal compass point radii (Sp: R in survey Table 1). Secondly, and following paragraphs 4.6.1, 4.6.2 and 4.6.3 of BS5837: 2012, we represent each tree’s “Root Protection Area” (RPA). For design purposes, it approximates the position of the tree protection fencing to be erected before 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 “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 are provided to advise regarding the design and layout of a proposed development.

## **Survey Intent and Context**

This document intends to highlight the extent and nature of the material of Arboricultural interest on the site in question.

## **Survey Data Collection and Methodology**

### **The Survey**

The original survey was carried out in July of 2019. This survey portion of the overall report is not an Implication Assessment though but provided some of the basic information regarding its compilation. The compilation of this survey was guided by the recommendations of BS 5837: 2012. This survey typically includes trees of stem diameters exceeding 150mm at approximately 1.50 metres from ground level. The survey relates to current site conditions, setting and context.

Each tree in the survey has a consecutive number that relates directly to the survey text. 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 tree's size and form. While 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. 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.

A competent and experienced Arborist has completed all inspection and tree assessment. 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. 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. 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 original survey was carried out during the summer 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

<b>Species</b> .....	Refers to the specific tree species
<b>Age</b> .....	Referred to in generalized categories including: -
<b>Y</b> - Young.....	A young and typically small tree specimen.
<b>S/M</b> - Semi-Mature.....	A young tree, having attained dimensions that allow it to be regarded independently of its neighbours but typically, would be less than 50% of its ultimate size.
<b>E/M</b> - Early-Mature.....	A specimen, typically 50% - 100% of ultimate dimensions but with substantial capacity for mass and dimensional increase remaining.
<b>M</b> - 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.
<b>O/M</b> - Over-Mature.....	An old specimen of a species having already attained or exceeded its naturally expected longevity.
<b>V</b> - 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.
<b>Tree Dimensions</b> .....	All dimensions are in meters. See notes regarding limitation of accuracy.
<b>Ht</b> .....	Tree Height
<b>CH</b> .....	Lowest canopy height
<b>N, E, S, W</b> .....	Tree Canopy Spread measured by radii at north, east, south and west
<b>Dia</b> .....	Stem diameter at approx. 1.50m from ground level.
<b>RPA</b> .....	Root Protection Area, as a radius measured from the tree's stem centre.
<b>Con</b>	Physical Condition
<b>G</b> Good.....	A specimen of generally good form and health
<b>G/F</b> Good/Fair.....	
<b>F</b> Fair.....	A specimen with defects or ill health that can be either rectified or managed typically allowing for retention
<b>F/P</b> Fair/Poor.....	
<b>P</b> Poor.....	A specimen whom through defect, disease attack or reduced vigour has limited longevity or maybe un-safe
<b>D</b> Dead.....	A dead tree
<b>Structural Condition</b>	Information on structural form, defects, damage, injury or disease supported by the tree
<b>PMR – Preliminary Management Recommendations</b>	Recommendation for Arboricultural actions or works considered necessary at the time of the inspection and relating to the existing site context and tree condition. Works considered as urgent will be noted.
<b>Retention Period</b>	
<b>S</b> – Short.....	Typically, 0 -10 years
<b>M</b> – Medium.....	Typically, 10 -20 years
<b>L</b> – Long.....	Typically, 20 – 40 years
<b>L+</b> .....	Typically, more than 40 years
<b>Category System</b> .....	The Category System is intended to quantify a tree regarding its Arboricultural value as well as a combination of its structural and physical health.
Category U.....	Typically relates to trees that are dead, dying or dangerous. Such trees may present a threat or 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 are further subdivided regarding the nature of their values or qualities.
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.

**Table 1 – Tree Data Table**

No.	Species	Age	Con	Ht	CH	N	E	S	W	Stm	Dia	RPA	Structural Condition	PMR	Yrs	Cat
1919	Common Alder ( <i>Alnus glutinosa</i> )	S/M	F	11.00	1.00	3.00	1.50	3.00	3.00	4	334	4.01	A close-knit community of multiple stems substantially cut back on western side because of encroachment on overhead power cables. Remains young and vigorous		M	C2
1920	Crack Willow ( <i>Salix fragilis</i> )	E/M	F/P	12.00	1.00	5.50	1.50	2.00	4.00	1	430	5.16	Distorted because of prior cutting relating to proximity to overhead power cables. Tree is now one-sided and typically unbalanced to north. Tree remains vigorous.		M	C2
1921	Sycamore ( <i>Acer pseudoplatanus</i> )	E/M	F	13.00	2.00	5.50	5.50	5.50	2.50	4	844	10.12	A relatively young and still vigorous specimen arising from roadside embankment. As multi-stemmed from ground level and may prove to be of impaired mechanical form. Western side of crown has been severely cut back in respect of adjoining passage of overhead high-tension cables.	Cut Ivy and rereview.	M	C2
1922	Sycamore ( <i>Acer pseudoplatanus</i> )	S/M	F	6.50	1.00	1.00	2.50	4.00	1.50	1	216	2.60	Distorted and unbalanced through position beneath canopy of larger adjoining Sycamore. Has been previously decapitated and come back in respect of proximity to adjoining overhead high-tension power cables. Is of dubious retention merit.		S	C2
1923	Common Alder ( <i>Alnus glutinosa</i> )	S/M	F	6.00	0.00	2.50	2.50	3.00	2.50	4	341	4.09	Young and vigorous, combining to create a singular crown form.	Review regard retention context.	M	B2

No.	Species	Age	Con	Ht	CH	N	E	S	W	Stm	Dia	RPA	Structural Condition	PMR	Yrs	Cat
1924	Norway Maple ( <i>Acer platanoides</i> )	S/M	F/P	6.50	2.00	1.00	3.50	4.00	1.00	1	290	3.48	Crudely decapitated in cut back with remaining crown limited to south-west and south. Is ill suited to retention.	Consider removal and replacement.	N/A	U
1925	Jacquemont's Birch ( <i>Betula jacquemontii</i> )	E/M	G/F	6.50	1.50	2.00	2.50	2.50	3.00	1	258	3.09	Young and still vigorous.		L	B2
1926	Norway Maple ( <i>Acer platanoides</i> )	E/M	F	9.00	1.50	3.00	2.50	2.50	4.00	1	376	4.51	Young and still vigorous. Has undergone prior pruning, particularly to lower south-western crown. Crown structure appears compromised by multiple compression fork development that may predispose tree to increased risk of mechanical failure.	Review regarding retention context and consider application of structural pruning works.	M	C2
1927	White Willow ( <i>Salix alba</i> )	E/M	P	13.00	1.00	5.00	5.00	8.00	4.50	1	748	8.98	A once larger tree has suffered catastrophic loss of north-western stem with substantial damage to remaining upright stem. Secondary stem extending to south is considered heavily unbalanced and would be unsuitable for retention in isolation.	Remove.	N/A	U
1928	Norway Maple ( <i>Acer platanoides</i> )	S/M	P	7.50	1.75	2.50	2.00	3.00	4.00	1	290	3.48	Heavily unbalanced to west and has suffered chronic decline and necrosis of eastern crown and supportive stems. Is unsuitable for attention.	Remove.	N/A	U
1929	Himalayan Birch ( <i>Betula utilis</i> )	S/M	P	5.00	1.00	2.50	2.50	2.50	2.50	1	197	2.37	Principal stem has suffered chronic wounding with extensive timber exposure. Tree is suitable only for short-term retention.		S	C2

No.	Species	Age	Con	Ht	CH	N	E	S	W	Stm	Dia	RPA	Structural Condition	PMR	Yrs	Cat
1930	Horse Chestnut ( <i>Aesculus hippocastanum</i> )	S/M	D	4.50	1.50	3.00	2.00	2.00	2.50	1	188	2.25	Completely dead and in need of removal.		N/A	U
1931	Silver Birch ( <i>Betula pendula</i> )	E/M	G/F	12.00	1.50	3.50	3.00	3.00	2.50	1	347	4.16	Apparently vigorous, arising from artificial decking surface above native ground levels.	Review regarding retention context.	L	B2
1932	Horse Chestnut ( <i>Aesculus hippocastanum</i> )	S/M	G/F	6.50	1.50	3.00	3.00	3.00	3.50	1	385	4.62	Young and vigorous but previously pruned within higher crown decapitated in recent past. Tree remains vigorous.	Review regarding retention context.	M	C2
1933	Sycamore ( <i>Acer pseudoplatanus</i> )	S/M	G/F	9.00	1.75	4.00	4.00	3.00	3.00	1	251	3.02	Young and vigorous, arising from broader outgrown hedge thicket. Arises from raised ground associated with boundary adjoining ramp and embankment.	Review regarding retention context.	L	B2
1934	Sycamore ( <i>Acer pseudoplatanus</i> )	E/M	G/F	12.00	1.50	4.50	4.50	4.50	4.50	1	430	5.16	Young and vigorous but is inaccessible through location within broader thicket.	Cut Ivy and review regarding retention context.	L	B2
1935	Sycamore ( <i>Acer pseudoplatanus</i> )	E/M	G/F	13.00	1.00	5.00	5.00	5.00	4.50	1	484	5.81	Young and vigorous. Arising in conjunction with a ditch and embankment scenario.		L	B2

**Tree Lines and Hedges**

SG1	Shrub Group 1 Bamboo Italian Cypress New Zealand Flax	E/M	F	2.00-3.00	0.00	Spread Contiguous	m/s	143	1.72	An ornamental mixed planting dominated by Italian Cypress and bamboo but supporting a small number of additional species. Most individuals are of reasonably good health however, typically small stature would allow for ready replacement as part of a landscape scheme.		L	C2
H2	Shrub Group 2 Buddleia Dog Rose ( <i>Rosa canina</i> ) Bramble ( <i>Rubus fruticosus</i> )	E/M	P	5.00	0.00	Spread Contiguous	m/s	143	1.72	A close-knit and naturally developing thicket effect, dominated by Buddleia. Would not normally be regarded as being suitable for retention.	Remove.	N/A	U
TG1	Tree Group 1 Silver Birch ( <i>Betula pendula</i> ) Sycamore ( <i>Acer pseudoplatanus</i> )	S/M	F/P	5.00-10.00	0.00-1.00	Spread Contiguous	1	223	2.67	An inaccessible, off site group of trees directly adjoining the site boundary. Trees are as of yet young raising substantial concern in respect of their development context relative to a boundary wall and with regards to potential for future growth and potential damage to that wall. It is advised that contact is made with the owners of these trees with regard to their ongoing suitability for retention and or management in respect of encroachment and future growth.		S	C2

H1	Hedge 1 Hawthorn ( <i>Crataegus monogyna</i> ) Bramble ( <i>Rubus fruticosus</i> ) Buddleia ( <i>Buddleia davidii</i> ) Sycamore ( <i>Acer pseudoplatanus</i> ) Ivy ( <i>Hedera helix</i> ) Elder ( <i>Sambucus nigra</i> )	M	P	2.00-3.50	0.00	Spread 2.50-3.00	m/s	175	2.10	A lapsed and derelict hedge exhibiting evidence of once having comprised a Hawthorne alignment. Hawthorn is now limited to sporadic outbreaks with greatest number of individuals southern end of section. Broader alignment is now best defined by combined thicket development dominated by Buddleia and Bramble. Eradication of invasive species would greatly denude alignment effect.	S	C2
H2	Hedge 2 Hawthorn ( <i>Crataegus monogyna</i> ) Bramble ( <i>Rubus fruticosus</i> ) Buddleia ( <i>Buddleia davidii</i> ) Sycamore ( <i>Acer pseudoplatanus</i> ) Ivy ( <i>Hedera helix</i> ) Elder ( <i>Sambucus nigra</i> ) Dog Rose ( <i>Rosa canina</i> ) <i>convolvulus</i>	M	P	2.00-3.50	0.00	Spread 2.50-3.00	m/s	175	2.10	As above. Much of this alignment is now devoid of large-scale vegetation with numerous low-level gaps not exceeding 0.75 m and comprising little more than an alignment of convolvulus and Bramble.	S	C2

H3	Hedge 3 Hawthorn ( <i>Crataegus monogyna</i> ) Bramble ( <i>Rubus fruticosus</i> ) ( <i>Hedera helix</i> ) Ivy ( <i>Hedera helix</i> ) Dog Rose ( <i>Rosa canina</i> ) <i>Convolvulus</i> Elder ( <i>Sambucus nigra</i> )	M	F/P	4.00-6.00	0.00	Spread 5.00-8.00	m/s	239	2.86	This hedge comprises an original Hawthorn alignment now encroached upon by substantial Spurious and invasive growth typically including Elder and Bramble. The original Hawthorn alignment is now somewhat intermittent with numerous gaps now filled by invading Bramble and elder whose removal would lead to a particularly intermittent hedge like feature. Overall and including the thicket continuity is broadly good but erratic and variable. Many of the Hawthorn are now affected by chronic degrees of smothering caused by Ivy and Bramble. The better element of the hedge comprises the Western two thirds whilst the eastern 3rd is particularly broken and intermittent	M	C2
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H4	Hedge 4 Hawthorn ( <i>Crataegus monogyna</i> ) Bramble ( <i>Rubus fruticosus</i> ) ( <i>Hedera helix</i> ) Ivy ( <i>Hedera helix</i> ) Dog Rose ( <i>Rosa canina</i> ) <i>Convolvulus</i> Elder ( <i>Sambucus nigra</i> )	M	F/P	3.00-6.00	0.00	Spread 5.00-8.00	m/s	207	2.48	An intermittent, broken and variable hedge illustrating an origin as a Hawthorne hedge in conjunction with a ditch and embankment scenario however, at this time, continuity is particularly poor and best provided for by lower level Bramble and Alder-based thicket. Eradication of invasive species would greatly undermine continuity. Note is made that the overall thicket alignment is often dramatically extended in an easterly direction as a result of the non-use and dereliction of the adjoining land and the corresponding development of scrub thicket, typically dominated by Bramble.	M	C2
THG1	Thicket Group 1 Common Alder ( <i>Alnus glutinosa</i> ) Elder ( <i>Sambucus nigra</i> ) Bramble ( <i>Rubus fruticosus</i> )	S/M	F	3.00-6.00	0.00	Spread Contiguous	1	159	1.91	A young and naturally arising, close-knit population of Common Alder together with a smaller number of goat willow and buddleia. Many trees within the group, particularly along the southern side have been harshly decapitated because of their position beneath high tension power cables. The remainder of the group may offer some degree of potential for retention however, population thinning would be required to reduce existing stem densities to sustainable mature density.	M	C2