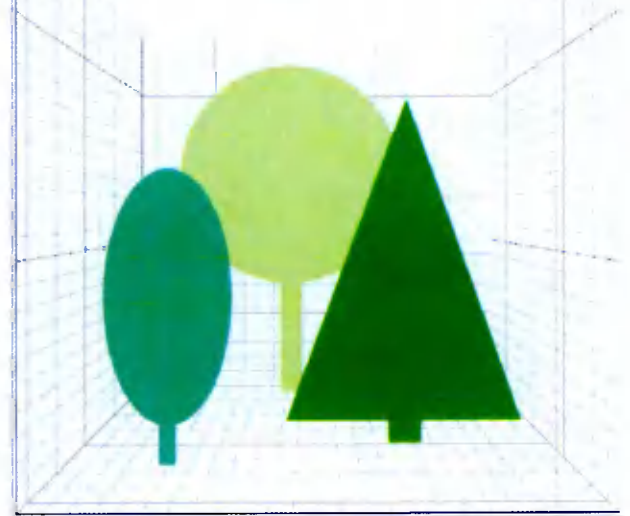


The Tree File

Consulting Arborists



**Arboricultural Report
Trees at Proposed Site at
Tandy's Lane Village
Adamstown
Co Dublin**

April 2022

**The Tree File Ltd
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Associated Drawings

This report is for reading in conjunction with the drawings noted below

<u>Drawing Title</u>	<u>Drawing Subject</u>
1) Tandys Lane Village Tree Constraints Plan	Tree Constraints Plan A plan depicting the predevelopment location, size, calculated constraints, and simplified tree quality category system.
2) Tandys Lane Village Tree Impacts Plan	Tree Impacts Plan This plan represents the effects of the proposed development works on the above tree population and depicts trees to be retained and removed.

1 Report Summary

- 1.1 The development proposals comprise “Phase 2” of a previously permitted development relating to Reg Ref SDZ19A/0011.
- 1.2 The current site supports only 9no. trees and 4 no. hedges. All other trees near the proposed development are located within the red line area of the previous “Phase 1” (Reg Ref SDZ19A/0011) lands. These trees were considered as part of that development. As part of the application process, the permitted development included a tree protection plan. As the scenario relating to the “phase 1” development remains broadly unchanged, then the originally submitted tree protection plan still applies.
- 1.3 In respect of the current, “Phase 2” application, no additional vegetation or trees will be retained beyond those outlines in the “Phase 1” plans.
- 1.4 Note is made that while the open space of “Phase 1” is excluded from the “red line” of the current “Phase 2” development proposals, the open space will be pertinent to both phases and trees retained in that open space will be equally pertinent to both phases.
- 1.5 As no trees or hedges will be retained within the confines of this development, then no further tree protection measures are required beyond those nominated for the trees and hedge within the “Phase 1” lands.

2 Introduction

- 2.1 This report was commissioned by-
Quintain Developments Ireland Ltd.

This report was prepared by-
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Report Brief

- 2.2 The Tree File Ltd has been requested by **Quintain Developments Ireland Ltd.** to provide an Arboricultural report in respect of the proposed development.

Report Context

- 2.3 As "BS5837: 2012 Trees in Relation to Design, Demolition and Construction – Recommendations" is the accepted framework for such reports, its composition, inclusions and recommendations being followed as a general basis for this report. An arboricultural review of the proposed development project is included in this report. The report includes an evaluation of the existing tree population at the site in its current context. The report evaluates their chances of long-term retention in the post-development scenario. The report also discusses the potential effects and consequences of the development and construction process on those trees. It also provides information on the necessary tree protection and avoidance of tree damage during the construction process, which is required to achieve long-term tree retention.
- 2.4 The report conclusions were created after studying the design team's proposed project specifics and evaluating trees as specified and presented in "Appendix 1".

Report Limitations

- 2.5 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 set out under "Inspection and Evaluation Limitations and Disclaimers" in "Appendix 1" of this report. The findings and recommendations made within this report are compiled based upon the knowledge and expertise of the inspecting Arborist.
- 2.6 The "Implication Assessment" element of the report builds on assumptions and estimates, unavoidably associated with the "design" stage of the project. This report cannot address issues that may arise at "detail design" or "construction" detail stage or

in respect of how construction works might proceed on a day-to-day basis. Equally, this report cannot address issues that may arise in respect of changes or amendments required to address or comply with any conditions of a grant of permission.

- 2.7 In line with the "design" stage of the development proposals, 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.
- 2.8 Accordingly, this assessment is premised on all its elements/recommendations, and the omission or alteration of any part of it, particularly the application of tree protection methodologies, can radically alter outcomes regarding sustainable tree retention.

3 Site Description

- 3.1 The site area for the most part comprises lapsed agricultural land. The site comprises a number of irregularly shaped fields whose level status and lack of plough activity relics suggests likely grazing lands.
- 3.2 The field have been divided and separated by oftentimes a substantial ditch is an associated with embankments. It is often the higher bank side of the ditch that supports the majority of older vegetation. The broader site spans the two adjoining townlands of Doddsborough and Finnstown. All hedge lines appear on both the 1843 and 1908 Ordnance Survey mapping.
- 3.3 To the north-west of the site there is evidence to suggest the existence of smallholdings, homes or farm buildings though these have been mostly demolished.

4 Pre-Development Arboricultural Scenario

- 4.1 The greater proportion of the site lands are devoid of any vegetation of interest. Much of the site space comprises lapsed agricultural land. The vegetation associated with the site tend to arise in two forms. To the north-west of the site there is a small area that has been planted in respect to a now demolished and highly modified and broadly disturbed garden context. Elsewhere on the site, the vegetation relates to an original system of field drainage ditches that appear to have been developed in conjunction with stock proof Hawthorn hedges. It is from and adjoining these hedges that the majority of woody vegetation associated with the site arises.
- 4.2 Each of the field boundaries supports a relic at least of a Hawthorne hedge. In some hedges the Hawthorn element remains dominant, but in others, the Hawthorn is now recessive and being dominated by more invasive species including Bramble, Elder, Blackthorn and Ash. Therefore, current hedges are often changed from the original agriculturally intended Hawthorn hedges and are mixtures of multiple species. Accordingly, the hedges have often developed a profile substantially broader than the original Hawthorne alignment. In this respect, there is substantial potential to retain such hedges though that retention would necessarily encompass more the retention of a thicket corridor as opposed to a linear belt of Hawthorne.
- 4.3 Considering the spread of Ash dieback across Ireland and particularly, commentary provided by authorities including Teagasc and the Woodland Trust, then we must consider the potential that a large proportion of the Ash population will unavoidably be lost in the coming years. This may be pertinent in respect of the number of young Ash within the "Phase 1" lands.
- 4.4 As the development proposals will benefit from trees retained within the open space detailed in "Phase 1" of the broader development, the overall tree retention context for the broader "Tandy's Lane Village" has been considered. Figs 1 to 5 below provide a graphic representation of various tree values across both phases of the development.

These results deal with all trees and hedges within the current application area, as well as those trees designated for retention in the "phase 1" area.

Tree Conditions

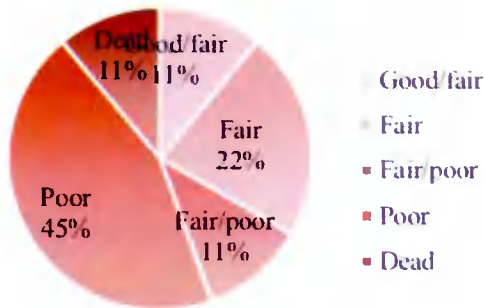


Fig 1

Tree Categories

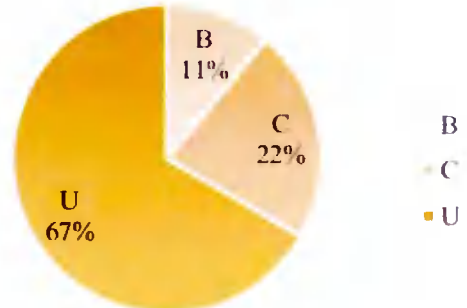


Fig 2

Tree Age

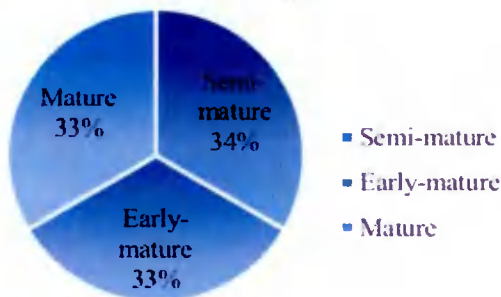


Fig 3

Useful Life Expectancy

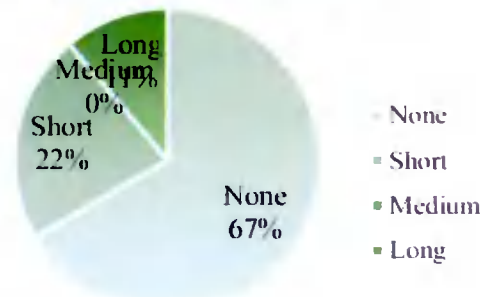


Fig 4

Tree Species



Fig 5

4.6 As can be seen from the graphs above in figures 1 and 2, tree conditions and categorisation show proportional similarities. This no doubt relates to the fact that many

trees are young as shown in Fig 3. This does not correlate well with the potential useful life expectancy as in Fig 4, that is skewed by the large numbers of Ash that remain susceptible to Ash Dieback.

- 4.9 Fig 5 illustrates the fact that nearly 50% of site trees are Ash. This raises substantial sustainability concerns considering the risks currently presented by Ash Dieback disease.

5 Planning Scenario in Respect of Tree

- 5.1 In respect of trees as they relate to planning within the **South Dublin County Council** area, note is made of two areas of guidance including - **The South Dublin County Council Development Plan 2016-2022** and **South Dublin County Council's Tree Management Policy 'Living with Trees'**.
- 5.2 **South Dublin County Council's Tree Management Policy 'Living with Trees'** "and the Amendments to Tree Management Policy 2015-2020 'Living With Trees' (as well as an interim internal review in February 2019) that includes substantial amounts of information in respect of tree management, planting and pertinent to this application, information pertaining to trees on development sites as outlined in Section 7, Trees and Development.
- 5.3 Within the **South Dublin County Council Development Plan 2016-2022**, trees and tree issues are dealt with regularly, including **Chapter 4, Economic Development and Tourism**, section 4.3.3, ET3 Objective 5 calling for the retention of trees on commercial development sites. Under Chapter 6, Transport and Mobility notes that the design of urban roads and street should incorporate tree planting.
- 5.4 As expected, trees are mentioned widely in **Chapter 8, Green Infrastructure**, with objectives to protect, and preserve trees and woodlands as per G2 Objective 9 and G6 Objective 1 and well as to include new tree planting as per Objective G2 Objective 11.
- 5.5 Also, **Chapter 10, Heritage, Conservation and Landscapes**, mentions trees, particularly HCL10 Objective 3, HCL11 Objective 5, HCL15 Objective 3 and HCL17 Objective 1.
- 5.6 Specifically, **Chapter 10, Heritage, Conservation and Landscapes**, includes Section 9.5.0 Tree Preservation Orders, including their application as well as defining the 4 existing orders located at, St. Brigid's (now Newlands Garden Centre), New Road, Clondalkin, Beaufort Downs, Rathfarnham, Townland of Quarryvale and Brooklawn, Palmerstown and Newcastle Road, Lucan.
- 5.7 In **Chapter 11, Implementation** and under "Masterplan Considerations", "Open Space and Landscape" and particularly "Section 11.5.5 Landscape" again mentions the importance of retaining trees and hedges.

5.8 The current 2016-22 County development plan shows no specific, map based tree or woodland related objectives for the site area.

6 Other Legislative and Legal Constraints

6.1 Under the Forestry Act 2014, the felling of a tree standing in a county area requires a felling license unless the trees are exempted under Section 19 of the Act. Section 19(1)(M)(ii), where "the removal of which is specified in a grant of planning permission".

6.2 Other non-specific exemptions may also be applicable, including-

- Trees standing in an urban area.
- Trees within 30 metres of a building (other than a wall or temporary structure), but excluding any building built after the trees were planted.
- Trees removed by a public authority in the performance of its statutory functions.
- A tree that is, in the opinion of the planning authority, dangerous on account of its age, condition or location.
- A tree within 10 metres of a public road and which, in the opinion of the owner (being an opinion formed on reasonable grounds), is dangerous to persons using the public road on account of its age or condition.

6.3 The above derogations do not apply where-

- The tree is within the curtilage or attendant grounds of a protected structure under Chapter 1 of Part IV of the Act of 2000.
- The tree is within an area subject to a special amenity area order
- The tree is within a landscape conservation area under section 204 of the Act of 2000.
- The tree is within a monument or place recorded under section 12 of the National Monuments (Amendment) Act 1994, a historic monument or archaeological area entered in the Register of Historic Monuments under section 5 of the National Monuments (Amendment) Act 1987, or a national monument in the ownership or guardianship of the Minister for the Arts, Heritage and the Gaeltacht under the National Monuments Acts 1930 to 1994 or is within a European Site or a natural heritage area within the meaning of Regulation 2(1) of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011)

6.4 For further clarification, contact should be made with Forest Service (Department of Agriculture, Fisheries and Food). The Felling Section of the Forest Service is based in Johnstown Castle, Co. Wexford

6.5 Other legislation may affect tree cutting and felling. Particular note should be made of the "Wildlife Act 1976 (as amended), as well as the EU Habitats Directive. These offer protection to animals, including Bats that often roost or even breed in trees. The

protection afforded by the above legislation means that particular care must be taken in the pruning or felling of trees that may contain Bats. For this reason, specific specialist advice should be sought.

7 Construction Activities and their Effect on Trees

- 7.1 Retaining trees takes up space. There is a big difference between physically preserving a tree and ensuring its future survival. Sustainable tree retention often depends on the extent and nature of construction protection.
- 7.2 Like all living things, trees are highly dependent on their environment in which they exist. A tree's continuity in supplies of water and nutrients from the soil. Any long-term change in ground conditions can easily affect a tree's metabolism, health, and sustainability.
- 7.3 Particularly, development and construction activities can easily damage the soil environment. Removing, disturbing or denaturing soil can irreparably damage tree roots and can render the soil incapable of supporting plant root function. Most modern construction requires large plants, equipment, and vehicles. Such machinery causes soil profile destruction and compaction that denatures the soil.
- 7.4 Where the above issues occur within the minimum "root protection area" as defined by "BS5837-2012", the tree's sustainability and safety may be compromised.
- 7.5 Sustainable tree retention must accept changing contexts and increased management in the future. Where rates of occupation and use increase, then any retained trees have a potential to cause harm or damage. This issue may be exacerbated where shelter-loss and exposure occur regarding the retention of individual trees.
- 7.6 Retained trees should be considered in respect of shadow-cast, light admission, and view-blocking. Wind patterns can affect leaf shedding, causing drifts and accumulations creating management issues around drains and gullies, or the creation of slippery surfaces.

8 Nature of Project Works

- 8.1 The proposed development is described as:

Quintain Developments Ireland Limited intend to apply for planning permission for development on 2 No. sites separated by the permitted Tandy's Lane Phase 1 Development (SDCC Reg. Ref. SDZ19A/0011) with a total site area of c. 10.24 hectares at Tandy's Lane, in the townlands of Doddsborough and Finntown, Adamstown, Lucan, Co. Dublin. The western site (8.06 hectares) is generally bounded to the west by Adamstown Boulevard, to the north by Adamstown Drive (L1030), to the east by the Tandy's Lane Phase 1 Development which is currently under construction (SDCC Reg. Ref. SDZ19A/0011) and undeveloped lands, and to the south

by Tandy's Lane which links Adamstown Boulevard with Adamstown Park Road. The eastern site (2.18 hectares) is generally bounded to the west / north-west by the permitted Tandy's Lane Phase 1 Development, to the east by Adamstown Park Road and to the south by Tandy's Lane.

This application is being made in accordance with the Adamstown Planning Scheme 2014, (as amended) and relates to a proposed development within the Adamstown Strategic Development Zone Planning Scheme. The lands are located within the Tandy's Lane Village Development Area.

The development will principally consist of: the construction of 352 No. residential units (terraced, semi-detached and detached) comprising 253 No. two storey houses (15 No. two bed units and 238 No. three bed units ranging in size from c. 86 sq m to c. 118 sq m) and 99 No. three storey houses (18 No. three bed units and 81 No. four bed units and ranging in size from c. 147 sq m to c. 189 sq m). The total gross floor area of the development is c. 43,272 sq m.

The development will also comprise the provision of 2 No. vehicular accesses from Adamstown Boulevard, 1 No. vehicular access from Adamstown Drive (L1030), 2 No. vehicular accesses from Adamstown Park Road and 2 No. vehicular accesses from Tandy's Lane; vehicular connections will also be provided to permitted roads in Tandy's Lane Phase 1; internal routes; 535 No. car parking spaces including on-curtilage and off-curtilage spaces; bicycle parking; bin storage; plant; ESB Substations; boundary treatments; lighting; hard and soft landscaping; and all other associated site works.

8.2 Considering the scope and scale of the proposed development, then many of the issues dealt with at "Construction Works and Trees" above could apply if trees are not protected during construction works, 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) Construction activity and the use of large plant and machinery that can denature the ground.
- e) A change in site context or a change in occupation or use which makes a tree unsuitable for retention.

9 Development Related Issues and Arboricultural Concerns

9.1 The greatest issues affecting trees has been the consumption of site space and possible encroachment on trees ostensibly retainable trees and hedges. This issue has been

previously noted and a tree protection plan was provided as part of the "Phase 1" (Reg. Ref. SDZ19A/0011) application. This same plan applies equally to this application.

- 9.2 The sites tree population is subject to ongoing deterioration. The tree population includes many mediocre to poor trees that will deteriorate further over future years. This is particularly pertinent considering the high number of Ash trees on the site and the national spread of Ash Dieback disease. The long-term sustainability of many of the site's trees, and particularly the Ash is questionable, regardless of any site development.
- 9.3 Some of the trees across the site have been subject to impromptu mechanical damage, often related to high winds and storm conditions. This issue will continue into the future and will require that the retained tree population is monitored and managed over time.

10 Design Iterations and Arboricultural Considerations

- 10.1 This report relates to clause 4.4.2.1 of BS5837-2012 in that its finding relate to a predefined concept that was issued 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.

11 Identification of Development Impacts to Trees

- 11.1 Though listed in this report, the expected tree impacts have also been represented graphically on the tree impacts drawing "**Tandys Lane Village Tree Impacts Plan**". This drawing combines the tree constraints plan information (survey data) with the development details, including the architectural and services layouts below, thereby allowing for simple and direct comparisons between the existing site context and the development proposals regarding new structures.
- 11.2 In this drawing, trees denoted with "Broken Pink" crown outlines are to be removed, and those denoted with "Continuous Green" crown outlines are to be retained.
- 11.3 Detail of the development proposals where gained from project drawings provided by-
- Waterman Moylan - Consulting Engineers – Drainage and Engineering information overlaid on Masterplan
 - Doyle & O'Troithigh Landscape Architecture- Landscape Design incorporating Architectural layouts
- 11.4 The assessment attempts to consider both direct and indirect consequences. Estimated construction requirements and a tree's likely interaction with the development are considered. In addition to growth, the assessment considers changes in the context and their impact on tree amenity value.

12 Tree Retention and Loss

- 12.1 Tree retention and loss should be reviewed from two aspects. While “Table 1” relates the outcome in respect of the current application (Phase 2) impacts, we note the combined landscape of Tandy’s Lane Village (Phases 1 and 2) will see a significant degree of tree retention.

Category	A	B	C	U	Total
Total No. of Trees	0	1	2	6	9
No. of Trees Removed	0	1	2	6	9
No. of Trees Retained	0	0	0	0	0
Total Hedges/Groups	0	0	4	0	4
Hedges/Groups Removed	0	0	4	0	4
Hedges/Groups Retained	0	0	0	0	0

Table 1, Numeric Representation of Tree Loss/Retention Scenario Current Application

- 12.2 As related in the Phase 1 submission (Reg Ref SDZ19A/0011) some 610m of hedge will be retained in the proposed layout. Of the total 32 trees recorded on site at that time, some 23 trees were to be retained in the proposed layout. This included the removal of 9no. that were of poor (category C) or very poor (category U) condition. Outside of the Phase 1 area and relating to the current proposals, a further 9 trees (Nos. 101 to 109) comprising the cluster to the north-west of the site, will also be removed.
- 12.3 Within the “Phase 2” area, the Category “U” trees are typically of such poor quality that they may require removal regardless of any development impacts. Therefore, their loss may be considered as separate from development impacts. Nonetheless, the proposed development works will require the loss of other category trees. These trees are identified by their survey numbers in the list below-

Category B	103
Category C	101 and 107
Category U	102, 104, 105, 106, 108 and 109
Groups/Hedges	Hedge 1, Hedge 2, Hedge 3 and Hedge 4

Table 2, Itemised Tree Loss List (Proposed site)

13 Tree Protection within the Scope of a Development

- 13.1 The proposed development requires the removal of all trees and hedges within the development red line. Accordingly, this phase of the development requires no additional tree protection measures beyond those outlined in the “Phase 1” development proposals.

14 Preliminary Management Recommendations

- 14.1 As the proposed development requires the removal of all trees and hedges within the development red line, tree management issues do not apply, other than in respect of landscaping and new tree planting.

15 Bibliography

- 15.1 British Standards Institution (2010) BS 3998:2010: Tree Work - Recommendations. London: British Standards Institution.
- 15.2 British Standards Institution (2012) BS 5837:2012: Trees in Relation to Design, Demolition and Construction - Recommendations. London: British Standards Institution.
- 15.3 Jackson, R.B et al (1996) A Global Analysis for Root Distribution in Terrestrial Biomes *Oecologia*, 108 (1996) pp389-411, Springer Verlag
- 15.4 Lonsdale, D. (2005) *Principals of Tree Hazard Assessment and Management*, London, TSO
- 15.5 Mattheck, C. and Breloer, H. (1994) *The Body Language of Trees*, London, TSO
- 15.6 Roberts, J. and Jackson, N. and Smith, M. (2006) *Tree Roots in the Built Environment*, London, TSO
- 15.7 Strouts, R.G. and Winter, T.G. (1994) *Diagnosis of Ill-Health in Trees*, London, HMSO
- 15.8 Teagasc (2021) Development of ash tree genetic resources, <https://www.teagasc.ie/crops/forestry/research/ash-resistance-to-ash-dieback/>
- 15.9 Woodland Trust (2021) Ash Dieback, <https://www.woodlandtrust.org.uk/trees-woods-and-wildlife/tree-pests-and-diseases/key-tree-pests-and-diseases/ash-dieback/>

A1 Appendix 1 - Tree Survey

Nature of Survey

- A2.1 The criteria put forward in "BS5837:2012 – Trees in Relation to Design, Demolition and Construction – Recommendations" have provided a basis for this report.
- A2.2 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.
- A2.3 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 site's 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 any 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

- A2.4 The survey must be read with the "Tree Constraints Plan" drawing "Tandys Lane Village Tree Constraints Plan" 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 "Tandys Lane Village Tree Constraints Plan". Any such trees should be located and plotted by professional means to identify the constraints such trees have upon the site.
- A2.5 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.
- A2.6 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".

- A2.7 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

- A2.8 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

- A2.9 An earlier survey was updated in March 2021. 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.
- A2.10 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 be estimated only.

Inspection and Evaluation Limitations and Disclaimers

- A2.11 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.
- A2.12 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 purposes will render the information invalid.

A2.13 A competent and experienced Arborist has completed all inspection and tree assessment. The inspection involves visual tree assessment (Mattheck and Breloer 1994) only, which has been carried out from ground level. No below ground, internal, invasive, or aerial (climbing) inspection has been carried out.

A2.14 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.

A2.15 Throughout the undertaking of the survey, several factors acted against the inspectors, contriving to reduce the accuracy of the survey.

Seasonality

A2.16 Various surveys have been completed during different seasons. 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 generalised categories including: -
Y - Young	A young and typically small tree specimen.
S/M - 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.
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

CH Lowest canopy height

N, E, S, W 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 limited longevity or maybe 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. Works considered as urgent will be noted.

Retention Period

S – Short Typically, 0 -10 years

M – Medium Typically, 10 -20 years

L – Long Typically, 20 – 40 years

L+ Typically, more than 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.

Category U Particularly poor quality, dangerous or diseased trees that offer no realistic sustainability

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 3 – Tree Data Table

No.	Species	Age	Con	Ht.	CH	N	E	S	W	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
101	Ash (<i>Fraxinus excelsior</i>)	E/M	F/P	12.00	2.50	3.00	4.50	3.00	4.00	1	452	5.42	A poor quality specimen heavily obscured by dense Ivy cover and showing classic signs of decline likely to be indicative of Ash dieback.	Cut Ivy and review summer 2022,	S	C
102	Wych Elm (<i>Ulmus glabra</i>)	S/M	D	7.00	1.50	3.50	3.50	3.50	3.50	1	306	3.67	Completely dead, killed by Dutch Elm disease.	Remove.	N/A	U
103	Hawthorn (<i>Crataegus monogyna</i>)	M	G/F	5.00	0.00	2.25	2.25	2.25	2.25	1	229	2.75	Young and still vigorous but possibly naturally arising, being out of alignment with nearest hedge.		L	B
104	Whitebeam (<i>Sorbus aria</i>)	E/M	P	6.50	1.50	4.00	4.00	3.50	3.00	1	404	4.85	Tree arises from heavily disturbed ground and has suffered chronic mechanical damage to middle stem.	Remove.	N/A	U
105	Box Elder (<i>Acer Sp.</i>)	S/M	P	6.00	1.50	3.50	2.50	3.50	3.00	1	376	4.51	Previously damaged and of reduced vigour. Tree appears to offer limited sustainability.	Consider removal and replacement.	N/A	U
106	Norway Maple (<i>Acer platanoides</i>)	S/M	P	8.00	1.50	1.50	1.50	2.50	2.50	1	325	3.90	In state of chronic decline with much of crown already dead.	Remove.	N/A	U
107	Whitebeam (<i>Sorbus aria</i>)	M	F	9.00	1.25	5.00	5.50	4.00	2.00	1	433	5.19	Heavily unbalanced to east. Is suffering premature defoliation suggesting possible pathological issues.	Review summer 2022,	S	C
108	Ornamental Cherry (<i>Prunus variety</i>)	M	P	5.00	2.00	4.00	5.00	3.00	0.50	1	420	5.04	Heavily one-sided and unbalanced to east. Basal wound is now affected by decay fungus. Tree offers limited sustainability.		N/A	U
109	Leyland Cypress (<i>Cupressocyparis leylandii</i>)	E/M	F	12.00	1.25	4.50	4.50	4.50	4.50	1	516	6.19	Crudely decapitated in past having developed spreading crown system. Original wounds are now subject to decay. Species is not considered sustainable.	Remove.	N/A	U

Tree Lines, Groups and Hedges

No.	Species	Age	Con	Ht	CH	Spread	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
H1	Hedge 1 Hawthorn (<i>Crataegus monogyna</i>) Blackthorn (<i>Prunus spinosa</i>) Ash (<i>Fraxinus excelsior</i>) Ivy (<i>Hedera helix</i>) Bramble (<i>Rubus fruticosus</i>) Dog Rose (<i>Rosa canina</i>)	M	F	2.00-5.00	0.00	Spread variable	m/s	n/a	2.50	A relatively short, vestigial section of hedge, where much of any original Hawthorn hedge has been subsumed into a variable thicket		L	C2

No.	Species	Age	Con	Ht	CH	Spread	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
H2	Hedge 2 Hawthorn (<i>Crataegus monogyna</i>) Blackthorn (<i>Prunus spinosa</i>) Wych Elm (<i>Ulmus glabra</i>) <i>europaeus</i>) Ivy (<i>Hedera helix</i>) Bramble (<i>Rubus fruticosus</i>) Dog Rose (<i>Rosa canina</i>) Holly (<i>Ilex aquifolium</i>) Wild Cherry (<i>Prunus avium</i>) Elder (<i>Sambucus nigra</i>) Privet (<i>Ligustrum ovalifolium</i>) Spindle (<i>Euonymus europaeus</i>) Ash (<i>Fraxinus excelsior</i>)	M	F	3.00-4.00	0.00	Spread 5.00m	m/s	n/a	2.50	A thick et like hedge arising from elevated ground associated with Western bank of field drainage ditch. Overall continuity is good however continuity comprises multiple different species as opposed to any continuous or original Hawthorn hedge. The hedge does exhibit evidence of having been mechanically fete flailed approximately 2 years ago.		L	C2

No.	Species	Age	Con	Ht	CH	Spread	Stm	Dia.	RPA	Structural Condition	PMR	Yrs.	Cat
H3	Hedge 3 Hawthorn (<i>Crataegus monogyna</i>) Blackthorn (<i>Prunus spinosa</i>) Bramble (<i>Rubus fruticosus</i>) Ivy (<i>Hedera helix</i>) Ash (<i>Fraxinus excelsior</i>) Dog Rose (<i>Rosa canina</i>)	M	F	5.00	0.00	Spread 5.00m	m/s	n/a	2.50	What appears to be in a Hawthorne hedge has been almost wholly overwhelmed by emergent ash. All Ash have been repeatedly flailed with higher crown is now comprising a suckering pole wood regeneration. Throughout the alignment, a substantial proportion of the Ash are showing signs of dieback associated with Ash decline. The extent of dominance of ash within the group means that should the Ash be lost, continuity within the original, Thorn based hedge will be greatly diminished.		S	C2
H4	Hedge 4 Hawthorn (<i>Crataegus monogyna</i>) Elder (<i>Sambucus nigra</i>) Bramble (<i>Rubus fruticosus</i>) Ivy (<i>Hedera helix</i>) Privet (<i>Ligustrum ovalifolium</i>)	M	F	3.50	0.00	Spread 4.00m	m/s	n/a	2.50	A lapsed hedge, apparently comprising Privet, but now oftentimes overwhelmed by Bramble and Elder. This hedge offers no realistic potential for managed retention.		L	C2



