Frank Shaw Associates Limited

Former Deighton Centre, Deighton

Arboricultural Assessment

September 2023

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PLANS

APPENDICES

1.0 INTRODUCTION

1.1 This report has been prepared by FPCR Environment and Design Limited on behalf of Frank Shaw Associates Limited to present the findings of an Arboricultural Assessment and survey of trees located at Former Deighton Centre, Deighton (hereafter referred to as the site), OS Grid Ref SE 159 195.

1.2 The survey was carried out on 22nd November 2022.

Scope of Assessment

1.3 The tree survey and assessment of existing trees has been carried out in accordance with guidance contained within British Standard 5837:2012 *'Trees in Relation to Design, Demolition and Construction - Recommendations'* (hereafter referred to as BS5837). The guidelines set out a structured assessment methodology to assist in determining which trees would be deemed either as being suitable or unsuitable for retention.

1.4 The guidance also provides recommendations for considering the relationship between existing trees and how those trees may integrate into designs for development; demolition operations and future construction processes so that a harmonious and sustainable relationship between any retained trees and built structures can be achieved.

1.5 The purpose of the report is therefore to firstly, present the results of an assessment of the existing trees' arboricultural value, based on their current condition and quality and to secondly, provide an assessment of impact arising from the proposed development of the site.

1.6 This report has been produced to accompany a detailed planning application for a SEMH (Social Emotional Mental Health) School and has included an assessment of any impact to the tree cover. The survey has therefore focused on any trees present within or bordering the site that may potentially be affected by the future proposals or will pose a constraint to any proposed development.

Site description

1.7 Situated to the North of the town of Huddersfield, within the Deighton District, the site comprises a playing field and an area of land which previously housed the Deighton Centre, a former High School which has since been demolished, leaving only areas of tarmacked car parking spaces.

1.8 The site is accessed via an existing tarmacked road from Deighton Road to the south, which also serves the Deighton Sports Arena, situated south of the site. To the east of the site is further playing fields, to the west is the Christ Church CE Academy and the north are residential properties on Tenter Hill Lane, which are separated from the site by an area of woodland.

2.0 PLANNING POLICY

National Planning Policy Framework September 2023

2.1 National Planning Policy is defined by the National Planning Policy Framework (NPPF). This sets out the Government's most current and up to date planning policies for England and how these should be applied. The current NPPF is dated September 2023.

2.2 In relation to arboriculture, the NPPF states that:

- *180 (c) 'development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons (footnote 63) and a suitable compensation strategy exists';*

  and provides specific guidance that:

- *180 (d) 'development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity'.*

2.3 With reference to paragraph 180 (c), examples of what is deemed to be *'wholly exceptional'* are included within Footnote 63 and provides the examples of '*infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat'.*

Local Planning Policy

2.4 Local planning decisions regarding all future developments are assessed against a framework to ensure that the district or county in question is developed in a well-informed and coherently systematic manner, this may include decisions to ensure that the right number and types of houses are built and incorporating the correct type of shopping and recreation facilities, whilst protecting the local ecological resources, landscape context and intrinsic heritage value of an area.

2.5 Within the context of The Kirklees Local Plan, there are several policies relating to trees. The following lists the most relevant.

Policy LP24

Design

Good design should be at the core of all proposals in the district and should be considered at the outset of the development process, ensuring that design forms part of pre-application consultation of a proposal. Development briefs, design codes and masterplans should be used to secure high quality, green, accessible, inclusive and safe design, where applicable. Where appropriate and in agreement with the developer schemes will be submitted for design review.

i. the retention of valuable or important trees and where appropriate the planting of new trees and other landscaping to maximise visual amenity and environmental benefits;

Policy LP33

Trees

The Council will not grant planning permission for developments which directly or indirectly threaten trees or woodlands of significant amenity.

Proposals should normally retain any valuable or important trees where they make a contribution to public amenity, the distinctiveness of a specific location or contribute to the environment, including the Wildlife Habitat Network and green infrastructure networks.

Proposals will need to comply with relevant national standards regarding the protection of trees in relation to design, demolition and construction. Where tree loss is deemed to be acceptable, developers will be required to submit a detailed mitigation scheme.

Statutory Considerations

2.6 Local authorities have a Duty under the Town and Country Planning Act to create Tree Preservation Orders (TPO) to protect and preserve specific trees and woodlands that bring significant amenity benefit to a particular site or location. Under a TPO it is a criminal offence to cut down, top, lop, uproot or wilfully destroy a tree protected by that Order, or to cause or permit such actions, if carried out without the prior written consent of the acting LPA. Anyone found guilty of such an offence is liable and in serious cases, may result in prosecution and incur an unlimited fine.

2.7 No direct consultation with the Local Planning Authority (LPA) has taken place, however, it is understood having used the online search facility on the website for the Local Planning Authority, Kirklees Council that there are no Tree Preservation Orders or Conservation Areas that would apply to any trees present on, or in proximity to the assessment site and therefore no statutory constraints would apply to the development in respect of trees. Before any tree works are undertaken confirmation of the online information should be sought from the Local Authority.

2.8 Information provided on Tree Preservation Orders and Conservation Areas is accurate to the date of this assessment and cannot be assumed to remain unchanged. The last check was carried out on the 31st July 2023.

3.0 SURVEY METHODOLOGY

3.1 The survey of trees has been carried out in accordance with the criteria set out in Chapter 4 of BS5837. The survey has been undertaken by a suitably qualified and experienced arboriculturist and has recorded information relating to all those trees within the site and those adjacent to the site which may be of influence to any proposals. Trees were assessed for their arboricultural quality and benefits within the context of the proposed development in a transparent, understandable and systematic way.

3.2 Trees have been assessed as groups or woodland where it has been determined appropriate.

- The term group has been applied where trees form cohesive arboricultural features either aerodynamically, visually or culturally including biodiversity or habitat potential for example parkland or wood pasture.
- For the purposes of this assessment woodland is described as a habitat where 'trees are the dominant plant form. The individual tree canopies generally overlap and interlink, often forming a more or less continuous canopy'[1]. Woodlands however, are not just formed of trees and generally include a great variety of other plants. These will include 'mosses, ferns and lichens, as well as small flowering herbs, grasses and shrubs'[2].

3.3 An assessment of individual trees within groups and woodland has been made where a clear need to differentiate between them, for example, to highlight significant variation between attributes including physiological or structural condition or where a potential conflict may arise.

BS5837 Categories

3.4 Trees have been divided into one of four categories based on Table 1 of BS5837, *'Cascade chart for tree quality assessment'*. For a tree to qualify under any given category it should fall within the scope of that category's definition (see below).

3.5 Category U trees are those which would be lost in the short term for reasons connected with their physiology or structural condition. They are, for this reason not considered in the planning process on arboricultural grounds. Categories A, B and C are applied to trees that should be of material considerations in the development process. Each category also having one of three further sub-categories (i, ii, iii) which are intended to reflect arboricultural, landscape and cultural or conservation values accordingly.

3.6 **Category (U) – (Red):** Trees which are unsuitable for retention and are in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years. Trees within this category are:

- Trees that have a serious irremediable structural defect such that their early loss is expected due to collapse and includes trees that will become unviable after removal of other category U trees.
- Trees that are dead or are showing signs of significant, immediate or irreversible overall decline.

[1] http://www.countrysideinfo.co.uk/woodland_manage/whatis.htm
[2] http://www.countrysideinfo.co.uk/woodland_manage/whatis.htm

- Trees that are infected with pathogens of significance to the health and/ or safety of other nearby trees or are very low quality trees suppressing adjacent trees of better quality.
- Certain category U trees can have existing or potential conservation value which may make it desirable to preserve.

3.7 **Category (A) – (Green):** Trees that are considered for retention and are of high quality with an estimated remaining life expectancy of at least 40 years with potential to make a lasting contribution. Such trees may comprise:

- Sub category (i) trees that are particularly good examples of their species, especially if rare or unusual, or are essential components of groups such as formal or semi-formal arboricultural features for example the dominant and/or principal trees within an avenue.
- Sub category (ii) trees, groups or woodlands of particular visual importance as arboricultural and / or landscape features.
- Sub category (iii) trees, groups or woodlands of significant conservation, historical, commemorative or other value for example veteran or wood pasture.

3.8 **Category (B) – (Blue):** Trees that are considered for retention and are of moderate quality with an estimated remaining life expectancy of at least 20 years with potential to make a significant contribution. Such trees may comprise:

- Sub category (i) trees that might be included in category A but are downgraded because of impaired condition for example the presence of significant though remediable defects, including unsympathetic past management and storm damage.
- Sub category (ii) trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.
- Sub category (iii) trees with material conservation or other cultural value.

3.9 **Category (C) – (Grey):** Trees that are considered for retention and are of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm. Such trees may comprise:

- Sub category (i) unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.
- Sub category (ii) trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value or trees offering low or only temporary / transient screening benefits.
- Sub category (iii) trees with no material conservation or other cultural value.

Ancient and Veteran Trees

3.10 Veteran trees are important components of the landscape, their importance can be for several reasons including that of their ecological, social, cultural and historic value.

3.11 Veteran Trees are material considerations within the planning process and their importance is specifically recognised within the National Planning Policy Framework (NPPF) 2021, which defines the terms ancient or veteran tree as:

'A tree which, because of its age, size and condition, is of exceptional biodiversity, cultural or heritage value. All ancient trees are veteran trees. Not all veteran trees are old enough to be ancient, but are old relative to other trees of the same species. Very few trees of any species reach the ancient life-stage.'[3]

3.12 None of the assessed trees were considered Ancient or Veteran based on a range of currently published guidance and resources.

Considerations and Limitations of the Tree Survey

3.13 The survey was completed from ground level only and from within the boundary of the site. Aerial tree inspections or an assessment of the internal condition of the stem/s or branches were not undertaken at this stage as this level of survey is beyond the scope of the initial assessment.

3.14 The assessment of tree condition given within applies to the date of survey and cannot be assumed to remain unchanged. It will be necessary to review all comments and observations made within this report, in accordance with sound arboricultural practice, within two years of the date of survey (unless explicitly stated elsewhere within this report). Further review may also be necessary where site conditions change or works to trees are carried out which have not been specified in detail within this report.

[3] Ministry of Housing, Communities and Local Government. (2019). *National Planning Policy Framework.* London: Ministry of Housing, Communities and Local Government.

4.0 RESULTS

4.1 A total of 14 individual trees, 21 groups of trees and two woodlands were surveyed as part of the Arboricultural Assessment. Trees were surveyed as individual trees, groups of trees and woodlands where examples are clearly present as per the description.

4.2 Appendix A presents details of all individual trees, groups and woodlands recorded during the assessment including heights, diameters at breast height, crown spread (given as a radial measurement from the stem), age class, comments as to the overall condition at the time of inspection, BS5837 category of quality and suitability for retention and the root protection area (RPA) calculated in accordance with Annex C, D and Section 4.6 of BS5837:2012.

4.3 General observations particularly of structural and physiological condition for example the presence of any decay and physical defect and preliminary management recommendations have also been recorded where appropriate.

4.4 The position of trees, groups and woodland have been shown on the Tree Survey Plan. The positions of trees are based on a topographical / land survey, as far as possible, supplied by the client. Where topographical information has not identified the position of trees these have been plotted using a global positioning system and aerial photography to provide approximate locations. The crown spread, root protection area and shade pattern (where appropriate) are also indicated on this plan.

Results Summary

4.5 Tree cover on the site was largely restricted to the site boundaries and comprised of mature planted specimens, which formed part of the site's former landscaping and semi mature self-seeded tree cover which had established within the site since the Deighton Centre was demolished.

4.6 Species included sessile oak *Quercus patraea*, Norway maple *Acer platanoides* and Italian alder *Alnus cordata* along with other native and understorey species. Tree cover had been subject to past management by virtue of the sites former use, with pruning wounds noted on several specimens.

4.7 The table below summarises the trees assessed and several of the trees have been discussed in more detail following the table, owing to their physical condition or arboricultural significance.

Table 1: Summary of Trees by Retention Category

	Individual Trees	Total	Groups of Trees	Total
Category U - Unsuitable		0		0
Category A (High Quality / Value)		0	W1, W2	2
Category B (Moderate Quality / Value	T2, T3, T4, T5, T9, T10, T12, T13, T14	9	G1, G2, G3, G4, G5, G7, G8, G9, G10, G11, G13, G15, G16, G17, G18, G21	16

	Individual Trees	Total	Groups of Trees	Total
Category C (Low Quality / Value)	T1, T6, T7, T8, T11	5	G6, G12, G14, G19, G20	5

4.8 The east of the site is a large playing field which is bounded by trees along its southern, eastern, and northern edges. Recorded as tree groups G1 – G9 this tree cover was, except for G6, considered of moderate quality (Category B) for its collective value as an arboricultural and landscape feature.

4.9 The west of the site which formally housed the Deighton Centre was similarly bounded by trees, this included tree groups G10 – G21, woodland W2 and individual trees T5 – T14. Boundary tree cover was for the most part recorded as being of moderate quality for its collective value as an arboricultural and landscape feature, except for woodland W2 which was recorded as high quality (Category A) being of visual importance screening the site from existing dwellings on Tenter Hill Lane to the north.

4.10 Internally the site was largely devoid of tree cover by virtue of the site's former use but there were a small number of tree groups (G19 and G20) and individual trees (T11 and T12) that stood within the site having formed part of the sites former landscaping. G19 and G20 both comprised of semi mature trees planted along the edge of carparking and by virtue of their limited future potential were recorded as low quality (Category C). T11 and T12 a rowan *Sorbus aucuparia* and a Norway maple had similarly been planted alongside areas of car parking with T11 being recorded as low quality and T12 of moderate quality by virtue of its greater life expectancy.

5.0 ARBORICULTURAL IMPACT ASSESSMENT

5.1 The following paragraphs present a summary of the tree survey and discussion of trees in the context of any proposed development in the form of an Arboricultural Impact Assessment in accordance with section 5.4 of BS5837. Any final tree retentions will need to be reconciled with the advice contained within this report.

5.2 The AIA has been based upon the Landscape Layout (L-2352-GAP-1000-Rev26) and seeks to outline the relationship between the proposals and the existing trees. The drawing shows the proposals for a SEMH (Social Emotional Mental Health) School with a large building within the west of the site, parking spaces, MUGAs, play spaces and a Forest School.

5.3 A Tree Retention Plan has been prepared to show the proposed layout in relation to the existing tree cover allowing an assessment of any potential conflicts. The plan also identifies which trees would be required to be removed or retained as part of the proposed development.

5.4 The table below summarises the impact on tree stock and these impacts have been discussed in more detail following the table.

Table 2: Summary of Impact on Tree Stock

	Trees to be Retained	Total	Trees to be Removed	Total
Category U - Unsuitable		0		0
Category A (High Quality / Value)	W1, W2	2		0
Category B (Moderate Quality / Value	T2, T3, T4, T5, T9, T10, T13, T14 G1, G2, G3, G4, G5, G7, G8, G9, G11, G13, G15, G16, G17, G21	8 14	T12 G10 (part), G18 (one tree),	1 2
Category C (Low Quality / Value)	T1, T6, T7, T8, G6, G12, G14,	4 3	T11 G19, G20	1 2

5.5 Development of the site would require the removal of all the internal tree cover (T11 and T12, G19 and G20), along with the part removal of G10, to allow for ground works and the construction of new parking areas. T11, G19 and G20 were all low quality (Category C), and their removal should not be regarded as a significant arboricultural impact, with the trees forming part of the sites former landscaping and new tree planted proposed alongside the new parking areas providing direct replacements.

5.6 While T12, an early mature Norway maple and G10 an early mature mixed species group of landscape planting, were recorded as moderate quality (Category B) again their removal should not be regarded as a significant arboricultural impact with the trees forming part of the sites former landscaping and new tree planting being proposed alongside the new parking areas, mitigating for their removal.

5.7 Boundary tree cover will be retained to provide screening to the site from the surrounding area. A Forest School is proposed within G10 on the site's northern boundary. The layout of the Forest School as shown is indicative, but it will likely comprise of paths, seats, and open areas. These features will be planned out on site to work around existing trees and ground levels. However, due to the density of G10 it will be necessary for some trees to be removed from within the group to create clearings and a safe means of access. The construction of this Forest School has been detailed within an AMS to ensure the development is in accordance with The Kirklees Local Plan Policy LP33.

5.8 While the proposals have shown the retention of boundary tree cover along the site's southern boundary, to achieve development on the site will require significant level changes within this portion of the site that have the potential to affect trees. To achieve level changes a reinforced earth slope is proposed along sections of the site boundary close to G15, G18 and T13, with the proposed site level being lower that the existing ground level. To reduce excavation close to trees, sections of retaining wall are proposed alongside T13 and G18, however, to facilitate the construction of one of these walls will require the removal of a single tree within G18, a group of three early mature Norway maple recorded as being of moderate quality.

5.9 There is no retaining wall proposed alongside G15, a group of three early mature Norway maple also recorded as being of moderate quality, however, these trees are situated on a grass bank alongside an existing area of hard standing. This existing hard standing will have influenced the root development of these trees which are highly likely to have rooted predominately within the grassed bank. The excavation required to construct the reinforced earth slope is restricted to the area beneath the existing hard standing, with the grass bank being unaffected and the methodology by which the trees will be protected during this operation has been detailed within the submitted AMS which proposed that all works within the RPA of trees would be supervised by an Arboricultural Clerk of Works (ACoW). Should during the construction of the reinforced earth slope significant roots be encountered that cannot be worked around, a decision would be made on site by the ACoW following discussions with the LPA as to the suitability of retaining the trees and replacement trees would be provided should these trees need to be removed.

Discussion

5.10 In conclusion for arboriculture, the proposals are considered to meet the aims and objectives of local and national policy through careful consideration of the design and the retention of valuable and important trees. While the development does require the removal of trees their removal would not detract from the distinctiveness of site and their removal would be mitigated for through appropriate new tree planting and landscaping to maximise visual amenity and environmental benefits.

6.0 TREE MANAGEMENT

6.1 All retained trees should be subjected to sound arboricultural management as recommended within section 8.8.3 of BS5837 *Post Development Management of Existing Trees,* where there is a potential for public access to satisfy the landowner's duty of care. Additionally, inspections annually and following major storms should be carried out by an experienced arboriculturist or arborist to identify any potential public safety risks and to agree remedial works as required.

6.2 All tree works undertaken should comply with British Standard 3998:2010 and should therefore be carried out by skilled tree surgeons. It would be recommended that quotations for such work be obtained from Arboricultural Association Approved Contractors as this is the recognised authority for certification of tree work contractors.

6.3 All vegetation and, particularly, woody vegetation proposed for clearance should be removed outside of the bird-breeding season (March - September inclusive) as all birds are protected under the Wildlife and Countryside Act, 1981 (as amended) whilst on the nest. Where this is not possible, vegetation should be checked for the presence of nesting birds prior to removal by an experienced ecologist.

7.0 NEW TREE AND HEDGEROW PLANTING

7.1 As part of the development proposals an adequate quantity of new tree planting has been demonstrated to mitigate for the proposed tree removal. A detailed landscaping and mitigation scheme will be submitted as part of the application, to ensure the development is in accordance with The Kirklees Local Plan Policy LP33 Trees, which states:

Where tree loss is deemed to be acceptable, developers will be required to submit a detailed mitigation scheme.

7.2 The success of any landscaping scheme relies on an adequate provision of a high-quality rooting environment within which trees can thrive and reach their full potential. Planting trees with due care and consideration can, in the long term, provide a greater return on a schemes green investment and ensure trees remain healthy and grow to mature proportions.

7.3 The planting of trees within confined urban environments should consider the use of appropriately designed planting pits specifically engineered to promote tree health and longevity. Crucially the aim should be to provide an adequate volume of quality soil for roots to suitably develop by calculating the amount of available soil volumes needed and selecting species whose mature size is compatible with the site.

7.4 Tree planting should be avoided where they may obstruct overhead power lines or cables. Any underground apparatus should be ducted or otherwise protected at the time of construction to enable trees to be planted without resulting in future conflicts.

8.0 TREE PROTECTION MEASURES

8.1 A site-specific Arboricultural Method Statement will be submitted a part of the application to ensure the development is in accordance with The Kirklees Local Plan Policy LP33 Trees, which states:

Proposals will need to comply with relevant national standards regarding the protection of trees in relation to design, demolition and construction.

8.2 This AMS will detail specific tree protection measures and working methodologies following the guidance in BS5837, to ensure retained trees will be adequately protected during all works on site.

N

KEY

- Category A - Trees / Groups of High Quality (BS 5837:2012)
- Category B - Trees / Groups of Moderate Quality (BS 5837:2012)
- Category C - Trees / Groups of Low Quality (BS 5837:2012)
- Woodland (Colour Indicates BS5837:2012 Category)
- Root Protection Area (The RPA has been altered where appropriate to reflect underground constraints)
- T1 (A) G1 (A) — Individual / Group Number and BS5837:2012 Category
- Indicative Shade Pattern (in accordance with BS5837:2012 where appropriate)

Scale 1:2000 @ A3

0 50 100m

NOTES

All dimensions to be verified on site. Do not scale this drawing, use figured dimensions only. All discrepancies to be clarified with project Arboriculturalist. Drawing to be read in conjunction with Arboricultural Assessment and Appendix A - Tree Schedule.

Drawing has been produced in colour and is based on digital information in .dwg format, aerial images and/or GPS location where appropriate. A monochrome copy should not be relied upon. The exact position of individual trees or species included as part of a tree group, woodland or hedgerow should be checked and verified on site prior to any decisions for foundation design, tree operations or construction activity being undertaken. Further survey work would be required for calculating foundation depths.

Trees are living organisms that change over time, the condition of all trees illustrated herein, are to be checked by the project Arboriculturalist should works commence 12 months after the date of this survey.

SOME TREES MAY BE SUBJECT TO STATUTORY CONSTRAINTS. IT IS THEREFORE ADVISED THAT NO WORKS SHOULD BE UNDERTAKEN TO ANY TREES ILLUSTRATED HEREIN WITHOUT FIRST OBTAINING THE RELEVANT AUTHORISATION TO DO SO UNLESS AGREED AS PER THE APPROVED PLANS THROUGH PLANNING CONSENT.

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-	16.01.23	First Issue	EC
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project
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Deighton

drawing title
TREE SURVEY PLAN

scale	drawn/checked	date
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11376-T-01

rev
B

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KEY

- Tree/Group to be Retained
- Tree/Group proposed to be removed subject to relevant permissions
- Woodland to be Retained
- Root Protection Area (Shown for retained trees only)
- T1 (A) G1 (A) — Individual / Group Number and BS Category
- T1 (A) G1 (A) — Individual / Group Number to be Removed and BS 5837:2012 Category
- Indicative Shade Pattern (in accordance with BS5837:2012 where appropriate)

Scale 1:1000 @ A3

0 25 50m

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-	31.07.23	First Issue	EC
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project
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TREE RETENTION PLAN

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11376-T-02

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C

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Appendix A - Tree Schedule

Measurements	Age Classes	Quality Assessment of BS Category	ULE (relates to BS Category)
Height - Measured using a digital laser clinometer (m)	**YNG**: Establishing, typically with good vigour and fast growth rates and strong apical dominance; c. less than 1/3 life expectancy	**Category U -** Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.	<10 years
Stem Dia. - Diameter measured (mm) in accordance with Annex C of the BS5837	**SM:** Semi-mature trees less than 1/3 life expectancy	**Category A -** Trees of high quality with an estimated remaining life expectancy of at least 40 years.	40+ years
Crown Radius - Measured using a digital laser clinometer radially from the main stem (m)	**EM:** Established, typically vigorous and increasing in apical height and lateral spread; 1/3 - 2/3 life expectancy. Offers landscape significance	**Category B -** Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.	20-40 years
Abbreviations est - Estimated stem diameter avg - Average stem diameter for multiple stems upto - Maximum stem diameter of a group	**M:** Fully established over 2/3 life expectancy, generally good vigour and achieving full height potential with crown still spreading	**Category C -** Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.	10-20 years
	OM: Fully mature, at the extremes of expected life expectancy, vigour decreasing, declining or moribund	Sub-categories: (i) - Mainly arboricultural value (ii) - Mainly landscape value (iii) - Mainly cultural or conservation value	
	V: biological, cultural or aesthetic value comprising niche saproxylic habitat. Individuals of large proportions (stem girth) in comparison to trees of the same species/surviving beyond the typical age range for their species.	**The BS category particular consideration has been given to the following:** • The presence of any structural defects in each tree/group and its future life expectancy • The size and form of each tree/group and its suitability within the context of a proposed development • The location of each tree relative to existing site features e.g. its screening value or landscape features • Age class and life expectancy	

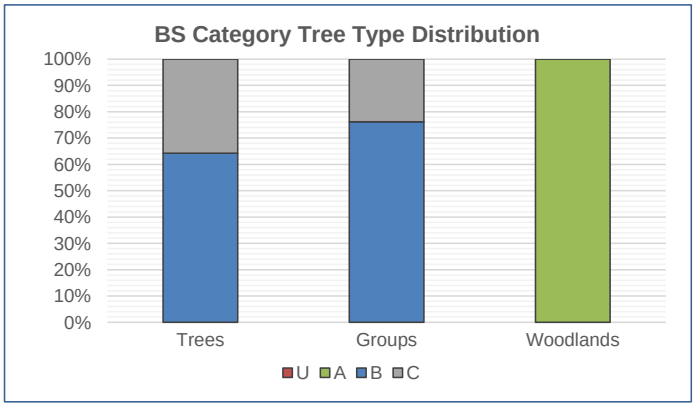
Structural Condition	Physiological Condition	Root Protection Area (RPA)
Good - No significant structural defects	**Good -** No significant health problems	• The RPA Radius column provides the extent of an equivalent circle from the centre of the stem (m). • The RPA is calculated using the formulae described in paragraph 4.6.1 of British Standard 5837: 2012 and is indicative of the rooting area required for a tree to be successfully retained. Tree roots extend beyond the calculated RPA in many cases and where possible a greater distance should be protected. • Where veteran trees have been identified the RPA has been calculated in accordance with Natural England guidance i.e. 15x the stem diameter, uncapped.
Fair - Structural defects that can be remediated	**Fair -** Symptoms of ill-health that can be remediated	
Poor - Significant defects beyond remediation, present a risk of failure in the foreseeable future	**Poor -** Significant ill-health. Unlikely the tree will recover in the long term	
Dead - Dead tree with structural integrity of tree severely compromised	**Advanced Decline / Dead -** Advanced state of decline and unlikely to recover or Dead	

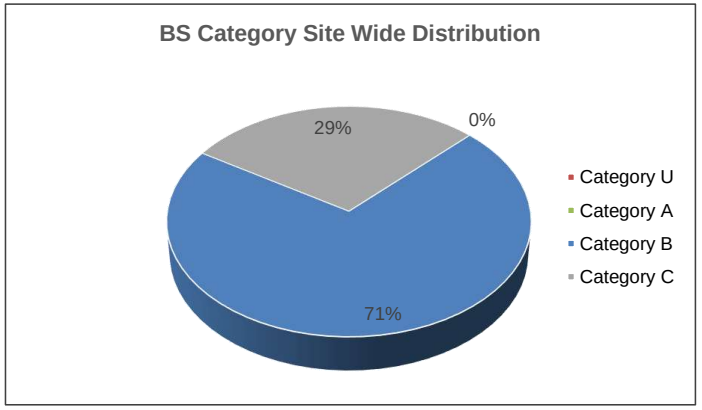
Appendix Summary

	Individual Trees	Totals	Tree Groups and Hedgerows	Totals
Category U		0		0
Category A		0	W1, W2	2
Category B	T2, T3, T4, T5, T9, T10, T12, T13, T14	9	G1, G2, G3, G4, G5, G7, G8, G9, G10, G11, G13, G15, G16, G17, G18, G21	16
Category C	T1, T6, T7, T8, T11	5	G6, G12, G14, G19, G20	5
	Total	14	**Total**	23

BS Category Tree Type Distribution displays the proportion of trees assessed in each type to enable a better understanding of the category distribution.

BS Category Site Wide Distribution shows the proportion of trees assessed in each category across the whole site which allows an interpretation of the site's overall quality.





Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
INDIVIDUAL TREES										
T1	English Oak Quercus robur	7	180 120	3	SM	F	Situated on site frontage likely self seeded multi stemmed from base dense ivy cover obscures stems	21	2.6	C (i)
T2	Italian Alder Alnus cordata	15	390	5	EM	G	Situated within G1 larger proportions than surrounding tree cover	69	4.7	B (i)
T3	Scots Pine Pinus sylvestris	7	410	4	EM	F	Situated within tree group larger proportions than surrounding tree cover twin stemmed from 2m	76	4.9	B (i)
T4	Goat Willow Salix caprea	7	6x 300	6	M	F	Situated within G8 larger proportions than surrounding tree cover multi stemmed from base crossing and rubbing branches	244	8.8	B (i)
T5	Sessile Oak Quercus petraea	10	7x 250	7	M	F	Situated within G9 larger proportions than surrounding tree cover multi stemmed from 1.5m low crown form	198	7.9	B (i)
T6	Norway Maple Acer platanoides	10	570	6	M	F	Open grown specimen main stem has previously failed at 5m with tearout wound and cavity dead branches noted within crown	147	6.8	C (i)
T7	Sessile Oak Quercus petraea	11	380	N - 1 S - 6 E - 4 W - 4	EM	F	Situated within site on edge of footpath suppressed crown form small diameter dead branches noted	65	4.6	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T8	Sessile Oak Quercus petraea	11	325	N - 1 S - 5 E - 4 W - 4	EM	F	Situated within site on edge of footpath suppressed crown form small diameter bark wounds noted on main stem	48	3.9	C (i)
T9	Sessile Oak Quercus petraea	15	500	6	M	F	Situated within tree group between two fence lines past pruning to raise crown small diameter dead branches noted	113	6.0	B (i)
T10	Sessile Oak Quercus petraea	15	500	6	M	F	Situated within tree group between two fence lines past pruning to raise crown small diameter dead branches noted stem in contact with fence with inclusion	113	6.0	B (i)
T11	Rowan Sorbus aucuparia	8	350	5	M	F	Planted specimen close to car park dense undergrowth restricts access to base uneven crown dead branches noted	55	4.2	C (i)
T12	Norway Maple Acer platanoides	10	300	5	EM	F	Planted specimen close to car park low crown form	41	3.6	B (i)
T13	English Oak Quercus robur	10	est 400	5	EM	F	Separate from group dense undergrowth restricts access to base low crown form	72	4.8	B (i)
T14	Weeping Willow Salix x sepulcralis 'Chrycosoma'	15	est 500	5	M	F	Situated beyond boundary fence unable to access crown in contact with building	113	6.0	B (i)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
GROUPS OF TREES										
G1	Blackthorn Prunus spinosa Field Maple Acer campestre Silver Birch Betula pendula Wild Cherry Prunus avium Hazel Corylus avellana Holly Ilex aquifolium Whitebeam Sorbus aria Scots Pine Pinus sylvestris	10	upto 250 200	4	EM	F	Buffer planting along embankment predominantly cherry moderate screening value sections of undergrowth debris piled within group	46	3.8	B (ii)
G2	Italian Alder Alnus cordata	17	upto 400	5	EM	F	Situated within G1 group of alder closely spaced etoliated forms mutual canopy small diameter dead branches noted in lower crowns	72	4.8	B (ii)
G3	Hazel Corylus avellana	7	upto 15x 120	4	M	F	Group of three Hazel coppice along Eastern edge of group no obvious recent management	98	5.6	B (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G4	Blackthorn Prunus spinosa Field Maple Acer campestre Goat Willow Salix caprea Silver Birch Betula pendula Wild Cherry Prunus avium Hazel Corylus avellana Holly Ilex aquifolium	8	upto 300	3	SM	F	Tree group along embankment predominantly cherry young self seeded cherry throughout group failed trees noted moderate landscape value	41	3.6	B (ii)
G5	Italian Alder Alnus cordata	17	upto 420	5	EM	F	Situated within on embankment group of alder closely spaced etoliated forms mutual canopy small diameter dead branches noted in lower crowns	80	5.0	B (ii)
G6	Blackthorn Prunus spinosa Field Maple Acer campestre	7	upto 200	3	EM	F	Situated on embankment predominantly blackthorn thicket limited arboricultural value	18	2.4	C (ii)
G7	Blackthorn Prunus spinosa English Oak Quercus robur Hazel Corylus avellana	5	upto 10x 100	3	EM	F	Situated on embankment Hazel coppice with blackthorn thicket and self seeded trees moderate arboricultural value	45	3.8	B (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G8	Ash Fraxinus excelsior Elder Sambucus nigra Goat Willow Salix caprea Hawthorn Crataegus monogyna Silver Birch Betula pendula Sycamore Acer pseudoplatanus Alder Alnus glutinosa Holly Ilex aquifolium Rowan Sorbus aucuparia	16	upto 400	5	EM	F	Planted group along embankment good spacing between trees undergrowth within group shrub layer developing occasional dead and failed tree noted	72	4.8	B (ii)
G9	Ash Fraxinus excelsior English Oak Quercus robur Hawthorn Crataegus monogyna Silver Birch Betula pendula Sycamore Acer pseudoplatanus Holly Ilex aquifolium Italian Alder Alnus cordata Rowan Sorbus aucuparia	12	upto 300	4	EM	F	Planted group along embankment predominantly sycamore dense undergrowth in sections moderate screening value	41	3.6	B (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G10	Ash Fraxinus excelsior Blackthorn Prunus spinosa Elder Sambucus nigra English Oak Quercus robur Field Maple Acer campestre Goat Willow Salix caprea Hawthorn Crataegus monogyna Horse Chestnut Aesculus hippocastanum Silver Birch Betula pendula Sycamore Acer pseudoplatanus Wild Cherry Prunus avium Hazel Corylus avellana Rowan Sorbus aucuparia guelder rose	13	upto 350	4	EM	F	Planted group along site boundary Old hawthorn hedge line within group young self seeded trees have established throughout	55	4.2	B (ii)
G11	Beech Fagus sylvatica English Oak Quercus robur Silver Birch Betula pendula Alder Alnus glutinosa	17	upto 400	5	EM	G	Situated beyond site boundary within adjoining school unable to access etoliated forms dead branches noted	72	4.8	B (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G12	Goat Willow Salix caprea Sessile Oak Quercus petraea Dogwood Cornus sanguinea	7	upto 270 220	4	EM	F	Group of dogwood with self seeded oak and goat willow limited arboricultural value	55	4.2	C (ii)
G13	Field Maple Acer campestre Goat Willow Salix caprea Horse Chestnut Aesculus hippocastanum Alder Alnus glutinosa Hazel Corylus avellana	14	upto 300	4	EM	F	Planted group along edge of car park low crown to near ground level moderate screening value	41	3.6	B (ii)
G14	Elder Sambucus nigra Norway Maple Acer platanoides Sessile Oak Quercus petraea	10	upto 250	3	SM	F	Small group of trees situated between fence lines stems growing through fence past pruning to raise crowns dead branches noted	28	3.0	C (ii)
G15	Norway Maple Acer platanoides	12	upto 480	5	M	F	Group of three trees next to car park mutual canopy past pruning to raise crown central tree has a bark wound on stem likely from planting stake not being removed	104	5.8	B (ii)
G16	Ash Fraxinus excelsior Norway Maple Acer platanoides Sycamore Acer pseudoplatanus Tree cotoneaster	14	upto 300	4	EM	F	Group of trees situated between two fence lines past pruning to raise crown moderate screening value	41	3.6	B (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G17	Norway Maple Acer platanoides Sycamore Acer pseudoplatanus	17	upto 400	5	EM	F	Planted group along embankment ivy cover obscures stems moderate screening value	72	4.8	B (ii)
G18	Norway Maple Acer platanoides	13	upto 470	5	EM	F	Group of three trees close spacing mutual canopy low crown forms	100	5.6	B (ii)
G19	Norway Maple Acer platanoides Dogwood Cornus sanguinea	3	upto 80	1	SM	F	Planted group along small retaining wall limited arboricultural value	3	1.0	C (ii)
G20	Whitebeam Sorbus aria Paper Birch Betula papyrifera	3	upto 150	1.5	SM	P	Three trees planted along edge of car park vandalism and bark wounds noted limited arboricultural value	10	1.8	C (ii)
G21	Sycamore Acer pseudoplatanus Rowan Sorbus aucuparia Leyland Cypress Cupressocyparis leylandii	15	upto 500	6	EM	F	Planted group along site boundary predominantly sycamore small section of conifer crowns previously maintained along edge of car park	113	6.0	B (ii)

Wood No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
WOODLANDS										
W1	Elder Sambucus nigra English Oak Quercus robur Hawthorn Crataegus monogyna Silver Birch Betula pendula	12	upto 420	4	EM	G	Predominantly oak woodland situated beyond application boundary low crown forms young oak have self seeded along woodland edge	80	5.0	A (ii)
W2	Hawthorn Crataegus monogyna Norway Maple Acer platanoides Silver Birch Betula pendula Sycamore Acer pseudoplatanus Holly Ilex aquifolium Sessile Oak Quercus petraea Sweet Chestnut Castanea sativa Common Larch Larix decidua Corsican Pine Pinus nigra ssp. Laricio	17	upto 500	5	EM	G	Predominantly sycamore woodland situated beyond application boundary etoliated forms occasional coniferous species footpath along woodland edge	113	6.0	A (ii)