Wythenshawe Sports Ground, Manchester

Arboricultural Impact Assessment



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Arboricultural Impact Assessment
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1 INTRODUCTION

1.1 This Arboricultural Impact Assessment (AIA) has been prepared by Tetra Tech RPS on behalf of Surfacing Standards Ltd. in respect of the proposed development at Wythenshawe Sports Ground, Willenhall Rd, Manchester M23 0BD.

1.2 A tree survey of the application area was carried out by RPS in 03/07/2025 in accordance with the requirements of BS5837:2012. The details recorded during the survey can be seen in the Tree Schedule at Appendix B and displayed spatially on the Tree Constraints Plan at Appendix C.

1.3 This report has also been prepared in accordance with the requirements set out in BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'(BS5837:2012).[1]

1.4 The purpose of this report is to:

- Provide an assessment of the quality of the surveyed trees with reference to the categories and sub-categories listed within Table 1 - BS5837:2012.
- Assess and quantify the arboricultural impact of the proposed development within the survey area, based on the proposed development layout.
- Provide additional arboricultural information and advice in relation to the protection of trees throughout the development of the site.
- Provide a Tree Removal and Protection Plan to detail the proposed protective measures to be taken in respect of the trees to be retained during development of the site and to identify the trees that are to be removed.

1.5 The Tree Removal and Protection Plan included in Appendix D identifies the following:

- Trees to be retained
- Trees to be removed
- Alignment and design of protective fencing
- Root Protection Area (RPA) of trees

1.6 The Tree Removal and Protection Plan shall be made available to all relevant site operatives prior to and throughout the construction process, so they understand the scope and importance of the tree protection measures.

1.7 To minimise the potential for harm to occur to retained trees, all works shall be carried out in accordance with the Tree Protection measures and construction techniques detailed within this report. In particular, the establishment of a Construction Exclusion Zone (CEZ) by erection of Tree Protection Fencing, will minimise the potential for harm to occur to retained trees.

[1] British Standards Institute. British Standard (BS5837) Trees in Relation to Design, Demolition and Construction - Recommendations. 2012.

2 SITE LOCATION

2.1 The survey site is located at Wythenshawe Sports Ground, Willenhall Rd, Manchester M23 0BD.

2.2 The land is roughly centred on OS grid reference SJ 81720 91095. The Local Planning Authority (LPA) governing this site is Manchester City Council.

2.3 The Soilscape of the area in which the survey site is situated typically consists of improved grassland, with a layered subsoil of glaciofluvial sand and gravel deposits. The texture is described as sand to sandy loam[2].

2.4 The site comprises of a couple buildings including a sports pavilion and grounds keeping shed, five sports fields with tree lined boundaries and an area of hard standing adjacent to the access road, Willenhall Road. The site for development is surrounded by grassed fields, except to the south where the buildings and hard standing are located. Beyond that is the M60 and Northern Moor, an area of Greater Manchester.

Tree Preservation Orders & Conservation Areas

2.5 A desktop investigation using Manchester City Council's[3] interactive online map confirmed that there are no Tree Preservation Orders across the site, nor is the site situated within a designated Conservation Area.

2.6 Trees covered by a Tree Preservation Order are protected under the Town and Country Planning Act 1990 (Trees Regulation 2012). The local authority must be consulted, and permission sought for any works that may affect them.

2.7 A Tree Preservation Order (TPO) is an order made by a LPA to protect specific trees, groups of trees or woodlands in the interests of amenity. An Order requires written consent from the LPA for any of the following actions to be carried out to a protected tree:

- cutting down
- topping
- lopping
- uprooting
- wilful damage
- wilful destruction

2.8 If consent is given, it can be subject to conditions which have to be followed. Cutting roots is also a prohibited activity and requires the authority's consent.

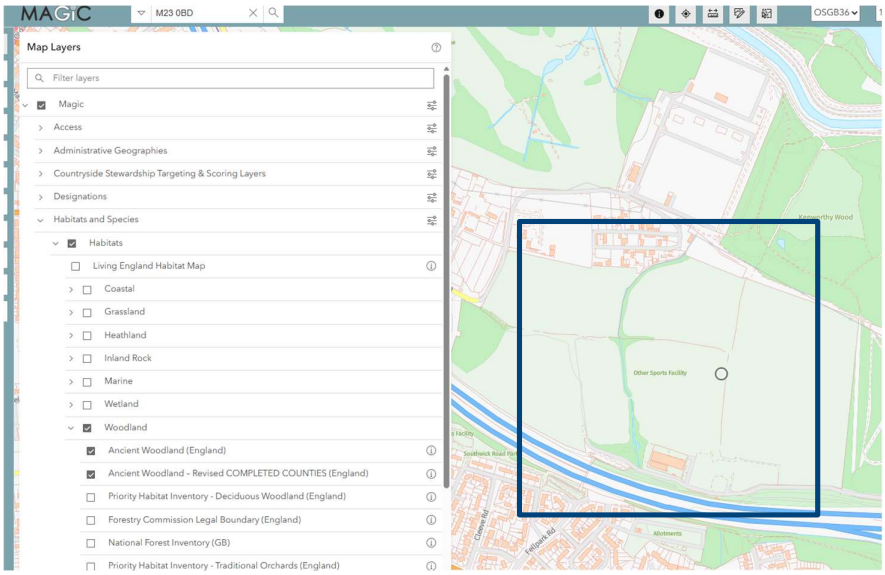
2.9 If a tree is not covered by a TPO but is situated within a Conservation Area, similar restrictions apply. Any works required to a tree situated within a Conservation Area must be notified to the LPA, using a 'section 211 notice', 6 weeks before carrying out the work, unless an exception applies.

[2] https://magic.defra.gov.uk/MagicMap.aspx

[3] https://mapapps2.bgs.ac.uk/ukso/home.html

Ancient Woodland and Veteran Trees

2.10 A desktop investigation using the Magic Map Application[4] confirmed that there are no Ancient Woodland designations on or adjacent to the site.



2.11 A desktop investigation using the Ancient Tree Inventory[5] confirmed that there are no veteran trees on or adjacent to the site.



2.12 In accordance with the National Planning Policy Framework (NPPF) (December 2024) section 193(c):

[4] https://magic.defra.gov.uk/MagicMap.aspx

[5] https://ati.woodlandtrust.org.uk/

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 and a suitable compensation strategy exists [6]

2.13 Forestry England and Natural England[7] published standing advice for ancient woodlands and ancient and veteran trees in the context of developments, which is a material consideration for LPA. This guidance advises on the minimum RPA calculations which must be used, with minimum distances identified as:

- Fifteen metres between any development and ancient woodland.
- Fifteen times the diameter of its stem or 5m from the edge of its canopy, whichever is greater, around any ancient or veteran tree.

2.14 The use of semi-natural habitats for buffer zones as a means of protection is encouraged to contribute to the wider ecological network and enhance the green infrastructure area. Further guidance is provided on the compensation measures which may be applied should adverse impacts arise.

[6] https://www.gov.uk/government/publications/national-planning-policy-framework--2

[7] https://www.gov.uk/guidance/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions

3 NATIONAL AND LOCAL PLANNING POLICY

National Planning Policy Framework (NPPF) December 2024[8]

3.1 In relation to this report, there are three paragraphs of the NPPF which should be considered. Paragraph 136 states: "Trees make an important contribution to the character and quality of urban environments and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly planted trees, and that existing trees are retained wherever possible."

3.2 Paragraph 187 (B & D) states: "Planning policies and decisions should contribute to and enhance the natural and local environment by:

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland.

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;"

3.3 And most importantly, paragraph 193 (A, C & D) states: "When determining planning applications, local planning authorities should apply the following principles:

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.

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 and a suitable compensation strategy exists; and

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate."

[8] https://www.gov.uk/government/publications/national-planning-policy-framework--2

4 SURVEY METHODOLOGY

4.1 The tree survey was authorised and completed by David Cox, a professional member of the Arboricultural Association and Chartered Landscape Architect of RPS Group. The report was written by Poppy Bowyer-Hogg an Arboriculturist of RPS.

4.2 The tree survey was carried out in accordance with the requirements set out in BS 5837:2012 "Trees in Relation to Design, Demolition and Construction – Recommendations". The survey does not constitute a full arboricultural condition assessment involving the detailed inspection of trees in relation to their structural condition, decay, and any other physical and pathogenic defects.

4.3 During the survey, all information was digitally captured on site, using a tablet running Axciscape 4.07 software. This is a program specifically designed for arboricultural surveying, which allows trees to be located directly onto a digital copy of a sites topographical survey.

4.4 The tree survey involved a visual inspection from the ground of individual specimens and where, deemed appropriate, trees have been assessed as groups of trees, woodland and hedgerows. Characteristics such as their amenity value, condition and dimensions have been recorded. A full breakdown of tree characteristics recorded during the survey can be seen in Appendix A.

4.5 Each arboricultural feature is marked on the Tree Constraints Plan at Appendix C with an identification number (T1, G1, H1, W1 etc), which can be seen at and cross referenced with the Tree Schedule at Appendix B. The Tree Schedule shows a breakdown of the raw data collected during the site visit.

4.6 The locations of the trees are based upon a topographic survey ref: ECS3109~SS~WSS~M~001, produced by ECS in April 2025.

4.7 Measurements for tree height, minimum crown clearance and crown spread were rounded to the nearest 0.5m. Stem diameter measurements were recorded to the nearest 10 mm using a diameter tape where access to the stem was possible.

4.8 Trees retention categories were assigned by the following criteria and have been differentiated on the Tree Plans using the following colours:

Category A: Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Category B: Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

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 150 mm.

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. However, it may be possible to retain some trees assigned to retention Category U, where public access to them is limited, as they may exhibit conservation value providing unique wildlife habitat.

4.9 Categories A, B and C have further sub-categories with regards to the reasons for tree retention:

1) Mainly arboricultural qualities.

2) Mainly landscape qualities.

3) Mainly cultural values, including conservation.

Root Protection Area

4.10 The protection of the roots and soil structure within the RPA should be treated as a priority. To avoid damage to the roots or rooting environment of retained trees, the RPA has been calculated in accordance with section 4.6 of BS5837:2012. They have been displayed on the Tree Plans with a magenta circle and may be modified in shape where, deemed necessary by obvious root barriers observed on site (although the total area remains the same).

4.11 This methodology is recommended as the minimum area around a tree that contains sufficient roots and rooting volume to maintain viable tree vigour and structure. Where groups of trees, woodlands and hedgerows have been assessed, the RPA has been shown based on the average sized tree stem in each arboricultural feature, and so may fall short/exceed the RPA required for some of the individual specimens within the feature.

Limitations

4.12 The findings of this survey are not valid following adverse or unpredictable weather conditions or for any failure due to 'force majeure' or unpredictable events.

4.13 Trees are dynamic structures which are constantly growing and changing. Whilst reasonable effort has been made to identify defects which may compromise the trees longevity, no guarantee can be given as to the safety or otherwise of any individual tree or arboricultural feature. Due to the unpredictable laws and forces of nature, no tree can ever be deemed as safe. Natural failure of intact trees does occur, and changing climatic conditions can cause damage to even apparently healthy trees.

4.14 Trees were not climbed or inspected below ground level and inaccessible trees will have best estimates made about the location, physical dimensions and characteristics. If trees have been recorded beyond the extent of the site, all dimensions have been estimated (unless stated otherwise), and the assessment of these trees has occurred from land within the Client's ownership and publicly accessible land only (unless formal access has been arranged to these additional areas).

4.15 Trees and woody vegetation were not assessed for their potential impact upon future construction issues such as foundation designs (re: NHBC chapter 4.2)'[9]. Whilst this report may assist in assessing likely future impacts, it should not be classed as a comprehensive vegetation survey in relation to impact upon future designs.

4.16 The desktop study confirming statutory and non-statutory constraints uses publicly accessible third-party information, meaning the results of this exercise are only as accurate as the information available at the time of the assessment.

4.17 Provisional Tree Preservation Orders (TPOs) may be made whenever a Local Planning Authority (LPA) deems it appropriate, with only those persons interested in the land served with a copy of the Order. A further search for the presence of TPOs should be carried out prior to commencement of any tree works or removals specified within this report.

Where possible, the location of the arboricultural features identified at the site have been plotted using a topographical survey, which has been supplied by the client. If no topographical survey data has been provided, arboricultural feature locations have been plotted using GPS, aerial photography and/or OS maps, which have a reduced accuracy.

[9] NHBC. 'Chapter 4.2- Building Near Trees'. NHBC Standards 2016. 2016.

5 APPRAISAL AND RECOMMENDATIONS

Summary of Tree Survey

5.1 During the survey 47 trees were surveyed as individuals. The survey also recorded 7 Groups, 1 Woodland and 3 areas of Scrub. For details on all the information recorded during the site visit, please refer to the Tree Schedule at Appendix B.

5.2 20 trees surveyed on site have been categorised as 'high quality' displaying minor defects and overall fair to good condition. 19 are considered 'moderate quality', 7 have been noted as 'low quality' and 1 as 'unretainable'.

5.3 The distribution of species recorded across the site has been shown in Table 1 below.

Table 1: Species distribution across the site

Species Breakdown of Individually Surveyed Trees						
Species	A	B	C	U	Total	Species Distribution
Acer pseudoplatanus (Sycamore)	7	8	1	1	17	36.2%
Quercus robur (Common Oak)	7	6	3	0	16	34.0%
Tilia X europaea (Common Lime)	5	0	0	0	5	10.6%
Fraxinus excelsior (Ash)	0	1	3	0	4	8.5%
Acer platanoides (Norway Maple)	1	2	0	0	3	6.4%
Crataegus monogyna (Hawthorn)	0	1	0	0	1	2.1%
Populus nigra 'Italica' (Lombardy Poplar)	0	1	0	0	1	2.1%
Total	**20**	**19**	**7**	**1**	**47**	**100.0%**
Category Distribution Percentage	**0.4255**	**0.4043**	**0.1489**	**0.0213**	**1**	

5.4 The BS5837:2012 quality of the individually surveyed trees is broken down in Figure 1 below.

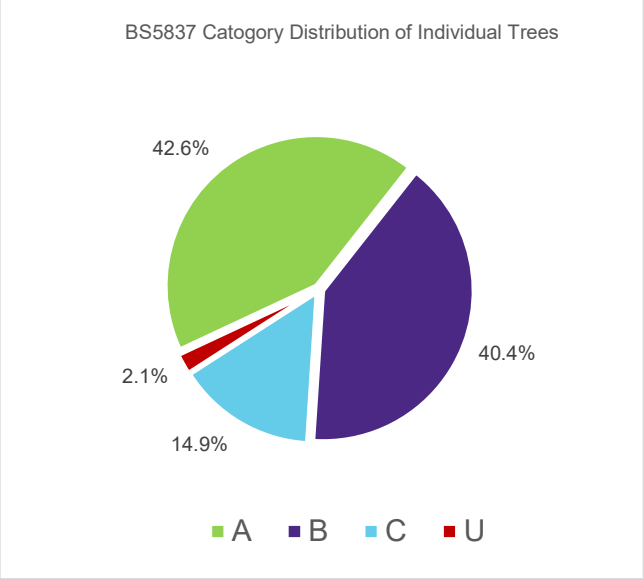


Figure 1: BS5837:2012 quality of individual trees across the site

Planning considerations

5.5 Trees can offer many benefits, including the provision of visual amenity, softening or complementing the effect of the built environment, adding maturity to new developments and by making places more comfortable in tangible ways e.g. contributing screening and shade, reducing wind speed and turbulence, intercepting snow and rainfall, and reducing glare.

5.6 New tree planting opportunities should be considered as part of any potential redevelopment; this will help to broaden the age diversity of the tree cover within the area. Sufficient space should be provided for species with significant stature to grow out into maturity.

5.7 Under the UK planning system, local authorities have a statutory duty to consider the protection and planting of trees when granting planning permission for proposed development. The potential effect of development on trees, whether statutorily protected (e.g. by a tree preservation order or by their inclusion within a conservation area) or not, is still a material consideration that is considered when dealing with planning applications.

Design and Site Layout Considerations

5.8 During any future site planning exercises, the current and future growth potential of the trees should be considered.

5.9 The Root Protection Area (RPA) should become an exclusion zone during construction works and for any development. It should be fenced off and protected in accordance with BS5837:2012. The canopy is likewise susceptible to damage during construction work and requires similar protection.

5.10 No activities that result in excavations, changes in level or soil compaction should take place within the RPA of any retained trees, especially older mature trees. This would include the storage of materials, any construction work, trafficking by vehicles or even excessive trafficking by pedestrians.

5.11 If some form of construction must take place within the RPA, then certain measures need to be adopted to avoid disturbance or damage to the roots and to maintain moisture infiltration and

gaseous diffusion into the soil. It is recommended that these are detailed by a separate document called an Arboricultural Method Statement (AMS).

Services

5.12 The location and siting of new facilities near trees should consider the potential impact on and conflict with both tree roots and canopy. This should consider the ultimate size of existing young and middle-aged trees at maturity. Conversely the impact of the tree on the activities should also be considered regarding obstruction, shading, leaf fall and root action. These are problems that can be managed provided sufficient space is allowed for.

5.13 Services should be routed outside the existing or potential RPAs of trees. Where it is unavoidable, then the route of the services must be designed by an Engineer in consultation with an Arboriculturist. Further advice can be found in Street Works UK Volume 4- “Guidelines for the planning, installation, and maintenance of Utility apparatus in proximity to Trees (Issue 3, 2026)”.

Tree Risk Management

5.14 It is recommended that a programme of periodic arboricultural assessments be undertaken to regularly assess the full health and safety of all trees both in full leaf and bare stemmed. The assessments should prioritise areas with high footfall and/or presence of a constant target and accord with arboricultural advice, taking account of relevant factors (where known) that affect safety such as the age class, condition, size and species of the trees.

6 ARBORICULTURAL IMPACT ASSESSMENT

Introduction

6.1 Trees have finite energy reserves, developed each year throughout the growing season, which are utilised for biological processes such as growth and defence against pests or diseases throughout the following year.

6.2 Any development in proximity to trees has the potential to cause harm to those trees unless control measures are identified and acted upon; as such it is essential to consider the relationship between the proposed development and the retained trees to identify what precautions are necessary, proportionate and appropriate.

6.3 Development has the potential to impact upon the above ground and below ground parts of trees. Whilst some damage that can occur, such as physical damage to the trees stems and branches from machinery movements, is clearly visible, the impact from other aspects of work common on development sites, which can have a significant effect upon the continued health of trees, are not always immediately evident.

6.4 Damage that is not immediately evident, but which can cause long term harm to retained trees, includes things such as damage to the soil structure by compaction causing root damage and levels changes altering the water table and affecting moisture availability.

6.5 In general, by adopting appropriate methods of working, precautionary and protective measures, significant harm to retained trees can be avoided. The establishment of a CEZ by erection of Tree Protection Fencing will minimise the potential for harm to occur to retained trees.

6.6 The retention and protection of significant trees and vegetation will assist in assimilating the proposed development into the wider landscape and offer long term tree cover.

6.7 Furthermore, redevelopment of the site may offer an excellent opportunity to actively manage any retained vegetation and accordingly we recommend restorative tree works be undertaken as appropriate. This will further improve the amenity value and landscape setting of the site and increase the useful life of any retained trees.

Brief Description of Proposed Development

6.8 This document supports the proposed development, consisting of:

- The construction of new Artificial Grass Pitch (AGP)
- Undertake ground levelling
- Construction of the new path and viewing area
- Associated ground works and landscaping

Reference Documents

6.9 To assess the impacts of the proposed development on the arboricultural features at the site, the proposed site plan was overlaid onto the Tree Constraints Plan (TCP) to create a Tree Removal and Protection Plan (TRPP). As well as identifying trees required to be retained and removed to facilitate the proposed development, the TRPP assessed potential conflicts between the arboricultural constraints (such as the RPA and tree crowns) and the proposed site plan. Mitigation measures to negate these conflicts (such as ground protection, tree protection fencing and pruning requirements)

and to protect the trees during the construction process have been included on the TRPP, which can be found at Appendix D of this report.

6.10 The following documents have been referenced to create these plans:

- Topographical survey – ref: ECS3109~SS~WSS~M~001, produced by ECS in April 2025.
- Proposed site plan – ref: G-229824, produced Surfacing Standards Ltd in March 2026.

Proposed Tree Removal

6.11 To facilitate the proposed development, the removal of 2 trees is required (T1 and T47). Of the two trees one is of moderate quality (Cat B), the other is categorised as Cat U (unsuitable for retention).

6.12 The proposed removals are set within the confines of the site and are largely obscured from view beyond the site boundaries. As such, their removal will have minimal impact on the amenity value and scene of the wider surrounding area. The trees are shown on the Tree Removal and Protection Plan at Appendix D by a red transparent hatch.

6.13 Section 5.1.1 of BS5837:2012 recognises that the competing needs of development mean that trees are only one factor requiring consideration. It also states that misplaced tree retention can be detrimental on a site where it will cause excessive pressure on those trees being retained and could necessitate their removal in the future.

Tree Pruning Works

6.14 Due to the location of the trees in G5, some pruning of the trees in relation to clear access, utilities and fencing will be required.

6.15 A crown lift to G5 will be required to ensure a 2.5m clearance above new access footpath around new AGP.

6.16 Selective branch pruning (of approximately 1m), will be required for column clearance of the 15m floodlighting in tree crown. Works can be undertaken once light column is in place. Clearance of lighting splay can be maintained through a regular maintenance schedule.

6.17 All pruning should be undertaken by a competent and qualified person, adhering to the BS 3998: Tree Works, (chapter 7.6 ‘Crown Lifting’ and 7.8 ‘Selective Pruning’) to ensure best practice is followed.

Proposed Works Within Root Protection Areas

6.18 As the protection of soil and roots within the RPA must be treated as a priority, the primary position for any construction activities should be situated outside of these protected areas.

6.19 However, in instances where justification can be given to work within an RPA, technical solutions may be available to minimise the potential damage to tree roots and soil volume. If work is proposed within any RPAs of trees to be retained, a compensatory RPA offset must be demonstrated. This will boarder the existing RPA and mitigation measures can be implemented to prevent damage to roots and improve the soil environment available to the tree.

6.20 Due to the construction of the AGP and associated ground levelling works, the proposed development is going to result in new small incursions within the RPAs of G5. G5 is a category B group of early mature, mixed native species to be retained, situated along the west of the development.

6.21 To assess the potential impact these works will have on any retained trees, the percentage of incursion into the RPA has been calculated and compared to the total RPA to give an incursion percentage. These incursion percentages are shown in Table 2 below.

Table 2: Percentage of new incursion within the RPAs of arboricultural features to be retained

Tree Number	Reason for incursion	Incursion Area (m2)	RPA Area (m^2)	Total Incursion % of RPA
G5	Change in soil levels	36.7	162.88	22.53%
G5	Floodlight pit and cabling	2.4	162.88	1.47%

6.22 Given the small percentage of the incursions listed in the above table, a large proportion of the rooting environment will remain unaltered. Therefore, the impact arising from the proposed works is considered minimal given that significant, structural roots are unlikely to be adversely impacted.

Mitigation for works within the RPA

6.24 Table 6 below summarises the impact of the mitigation measures required for proposed works within the RPA of retained trees:

Table 3: Impacts of the mitigation measures for proposed works within the RPA of retained trees

Tree Number	Incursion as % of RPA	Incursion Type	Potential Impact	Mitigation	Overall Impact
G5	22.53%	Change in soil levels	Medium	Changes to soil levels must start outside of RPA and work in accordance with “No-Dig” design principles (do not sever roots; avoid soil compaction; maintain gas exchange and water infiltration)	Low
G5	1.47%	Floodlight column pit and cabling	Medium	Lighting column pit to be dug by hand. Cabling installed as per the NJUG Vol. 4.	Low

6.23 As the table above shows, the proposed mitigation measures for work within the RPAs will reduce the impact on the retained trees and increase the quantity of trees that can be retained. These mitigation measures have been indicated on the Tree Removal & Protection Plan Appendix D.

6.24 Furthermore, specific recommendations have been advised to ensure that the mitigation measures are understood within the context of the proposed development.

6.25 The western edge of the AGP batter/bund may conflict with a small area (22.53%) of the RPA of G5. These works will be completed using a digger from outside of the RPA to the east of the trees. Changes to soil levels will start outside of the (G5s) RPAs, if this is unavoidable, it must be as close to the outer edge of the RPAs as is practicable. This area is highlighted within the Tree Removal and Protection Plan in a green hatch.

6.26 The construction of a 15m floodlight and cable route within the RPAs and crown of G5 will require minor excavation and pruning works. The pit, and the trench are of minimal impact (1.47%) and are

not considered to be a material consideration from an arboricultural perspective. However, the installation of both will follow 'No-Dig' design principles (do not sever roots; avoid soil compaction; maintain gas exchange and water infiltration), to limit impact to the RPAs.

6.27 The pit shall be dug by hand and lined with a non-permeable membrane prior to the pouring of concrete. The cabling will be installed as per the NJUG Vol. 4 - "Guidance for the planning, installation and maintenance of utility services in proximity of trees, 2007". Cabling associated with the remaining lamp columns shall avoid all RPA(s).

Tree Planting and Green Infrastructure

6.28 A detailed planting plan should be considered to ensure appropriate compensation for the proposed tree loss and fulfil the requirements of the NPPF (December 2024). An appropriate tree planting strategy will provide an opportunity to incorporate feature trees, and through careful consideration for tree species can help diversify the tree population. This diversification will help to increase resilience to pests & diseases and in the long term, improve the arboricultural resource at the site. If this can be successfully implemented, the proposed tree loss is a short-term adverse impact, with a mid to long-term gain in the site's arboricultural value. An appropriate tree management and tree planting plan intrinsic to the development would serve to provide a net positive impact for arboricultural interests at the site.

7 TREE WORKS

Standard of Work

7.1 The tree work required to facilitate this development will adhere to the following standards.

7.2 All tree works shall be carried out in accordance with BS3998:2010 and latest arboricultural best practice.

7.3 All tree work shall be carried out by suitably qualified, competent and insured arboricultural contractors in accordance with Arboricultural Association Standard Conditions of Contract and Specifications for Tree Works (2008) Edition and BS 3998:2010 Tree Work.

7.4 All green and woody waste generated by the tree works shall be removed from site and disposed of in an environmentally sustainable manner.

7.5 When a branch is removed at its point of attachment, injury of the wood and bark of the parent stem or branch above the cut shall be avoided. If a branch collar is visible, the final cut shall be just outside it and care shall be taken to avoid tearing retained wood and bark when the cut is made. Preliminary cuts shall be made, if necessary, so as to remove weight, before a final cut is made. Care shall be taken to prevent falling branches from harming other parts of the tree (including its roots), its surroundings, people or property. Heavy branches shall be removed in sections and, where necessary, shall be lowered with ropes.

7.6 Prior to the commencement of any tree works an appropriate risk assessment shall be produced to describe the measures required to fulfil the statutory safety obligations. It shall aim to identify and prioritise the necessary control measures and precautions.

7.7 Following the works, it is recommended that the trees are monitored on a regular basis to ensure their ongoing vitality and health. These inspections shall be completed by a suitably qualified and experienced person.

Timing of Works

7.8 Any tree works required shall be completed prior to any construction and enabling works on the site.

7.9 All works shall be timed to have regard to the phenological cycles of protected species that are associated with trees; notably birds and bats.

7.10 Nesting birds are protected by law and any removal / tree works should not be carried out during the bird nesting season (March-August inclusive). Should any vegetation be outlined for removal during this period, then an ecological inspection would be required to check that no nesting birds are present. Should checks reveal nesting birds the vegetation must remain until September or until an ecologist has certified that the fledglings have left the nest. A visual inspection for bats shall also be carried on mature / ivy clad trees prior to commencing operations.

8 OUTLINE TREE PROTECTION MEASURES

Construction Exclusion Zone

8.1 The protective fence line defines the Construction Exclusion Zone (CEZ), and the fencing shall not be moved or taken down at any time. Within the CEZ there must be no mechanical digging or scraping; no alteration to existing ground levels including soil stripping; no earthworks; and no handling or discharge of any chemical substance, concrete washings or of any fuels.

8.2 Furthermore, vehicular or pedestrian access and the storage of any materials is prohibited within the CEZ.

8.3 Additionally, no materials that may contaminate the soil such as concrete mixings, diesel oil and vehicle washings shall be discharged within 10m of the stem of any tree and no fires shall be lit within 10m of the maximum extent of a trees crown.

Tree Protection Fencing

8.4 The tree protection fence shall be erected as shown on the Tree Removal and Protection Plan (Appendix D) included with is report.

8.5 The fence line shown is the minimum required, and the length of the fence shall be extended or adjusted on site as agreed with the Arboricultural Consultant to ensure satisfactory protection of all retained trees and RPAs.

8.6 Where proposed (permanent) construction site-hoarding provides the same level of protection to the retained trees and RPAs as the proposed tree protection fence, subject to agreement with the Arboricultural Consultant, the hoarding may serve as the tree protection fence. Notwithstanding, depending on the form and alignment of the construction site- hoarding it may be necessary to provide additional tree protection fence to ensure adequate protection of retained trees and RPAs as shown on the Tree Removal and Protection Plan.

8.7 Once the protective barrier is in place it must remain in situ throughout the course of the development until the completion of development, other than to facilitate agreed tree removal; see below.

8.8 Where necessary, tree protection fencing may be temporarily re-aligned to facilitate tree removal. Fencing is to be re-instated immediately following removal in a manner that encompasses the remaining trees and their respective RPAs.

8.9 During tree removal, no wheeled or tracked machinery is to enter the area previously encompassed by tree protective fencing as shown in the Tree Removal and Protection Plan.

8.10 Copies of the Tree Removal and Protection Plan shall be placed in the site office for reference by all site staff.

8.11 Signs detailing the purpose of the protective barrier shall be attached to the barriers at 10m intervals. Such signs should be weatherproof and shall be substantially in the form of the examples provided in Appendix F. Signs must be replaced as necessary should they be removed or become illegible.

8.12 Following erection of the protective barriers and prior to commencement of the development it is recommended that an inspection of the site, by either the Council's Tree Officer or the Arboricultural Consultant, is arranged to confirm fencing has been installed in accordance with the Tree Removal

and Protection Plan and that any relevant arboreal conditions attached to the planning consent have been met.

Reporting

8.13 Should any arboricultural issues become apparent during the works the site manager should immediately contact the Arboricultural Consultant or the Council's Tree Officer for advice upon how to proceed.

9 SUMMARY

9.1 This Arboricultural Impact Assessment (AIA) has been prepared by Tetra Tech RPS on behalf of Surfacing Standards Ltd. in respect of the proposed development at Wythenshawe Sports Ground, Willenhall Rd, Manchester M23 0BD.

9.2 This document supports the proposed development, consisting of:

- The construction of new Artificial Grass Pitch (AGP)
- Undertake ground levelling
- Construction of the new path and viewing area
- Associated ground works and landscaping

9.3 A tree survey of the application area was carried out by RPS in 03/07/2025 in accordance with the requirements of BS5837:2012.

9.4 There are no Tree Preservation Orders across the site, nor is the site situated within a designated Conservation Area. There are no Ancient Woodlands or Veteran Trees on or adjacent to the site.

9.5 During the survey 47 trees were surveyed as individuals. The survey also recorded 7 Groups, 1 Woodland and 3 areas of Scrub. 20 trees surveyed on site have been categorised as 'high quality' displaying minor defects and overall fair to good conditioning. 19 are considered 'moderate quality', 7 have been noted as 'low quality' and 1 as 'unsuitable for retention'.

9.6 Of the tees recorded only 2 will need removing to facilitate the development (T1 and T47).

9.7 The western edge of the AGP batter/bund may conflict with a small area (22.53%) of the RPA of G5. These works will be completed using a digger from outside of the RPA to the east of the trees. Changes to soil levels will start outside of the (G5s) RPAs, if this is unavoidable, it must be as close to the outer edge of the RPAs as is practicable. This area is highlighted within the Tree Removal and Protection Plan in a green hatch.

9.8 The construction of a 15m floodlight and cable route within the RPAs and crown of G5 will require minor excavation and pruning works.

9.9 The pit, and the trench are of minimal impact (1.47%) and are not considered to be a material consideration from an arboricultural perspective. However, the installation of both will follow 'No-Dig' design principles (do not sever roots; avoid soil compaction; maintain gas exchange and water infiltration), to limit impact to the RPAs.

9.10 The pit shall be dug by hand and lined with a non-permeable membrane prior to the pouring of concrete. The cabling will be installed as per the NJUG Vol. 4 - "Guidance for the planning, installation and maintenance of utility services in proximity of trees, 2007". Cabling associated with the remaining lamp columns shall avoid all RPA(s).

9.11 Selective branch pruning (of approximately 1m), will be required for column clearance of the 15m floodlighting in tree crown. Works can be undertaken once light column is in place. Clearance of lighting splay can be maintained through a regular maintenance schedule.

9.12 A crown lift to G5 will also be required to ensure a 2.5m clearance above new access footpath around new AGP. All pruning should be undertaken by a competent and qualified person, adhering to the BS 3998: Tree Works, (chapter 7.6 'Crown Lifting' and 7.8 'Selective Pruning') to ensure best practice is followed.

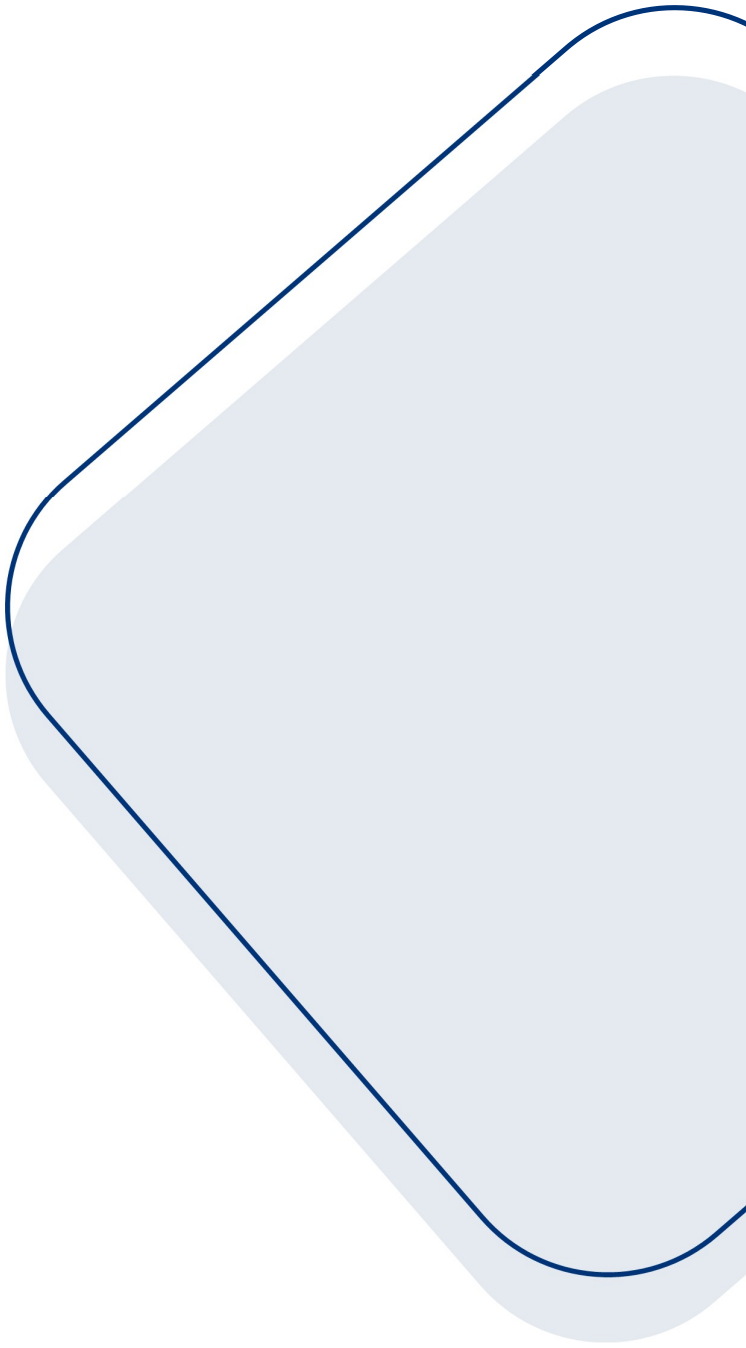
9.13 Construction Exclusion Zone (CEZ), and Tree Protection Fencing shall not be moved or taken down at any time during development. Within the CEZ there must be no vehicular or pedestrian access, no

mechanical digging or scraping; no alteration to existing ground levels including soil stripping; no earthworks; and no handling or discharge of any chemical substance, concrete washings or of any fuels.

9.14 Copies of the Tree Removal and Protection Plan (Appendix D) shall be placed in the site office for reference by all site staff. Waterproof signs detailing the purpose of the protective barrier shall be attached to the barriers at 10m intervals.

9.15 The successful retention of those trees that will remain on the site will be dependent upon the quality and maintenance of any protection system that is put in place.

Appendices



Appendix A

Tree Characteristics Recorded During Survey

Tree Ref No:	Sequential reference number of trees or groups of trees. Avenues, woodlands and hedgerows were also recorded on the tree constraints plan. # - denotes inaccessible trees (best estimates are made about the location, physical dimensions and characteristics.)
Species	Species listed by common name, with scientific names (italic lettering).
Height (m)	Estimated height of canopy to nearest metre.
Branch Spread	branch spread, taken as a minimum at the four cardinal points, to derive an accurate representation of the crown
Stem diameter @ 1.5 m (m)	Estimated diameter of trunk at 1.5 m above ground level in metres unless otherwise indicated, multi-stemmed trees being measured in accordance with Annex C: BS5837:2012
Existing height above ground level	To inform on ground clearance, crown/stem ratio and shading the estimated height of the first significant branch and direction of growth and canopy above ground level.
Stem No.	Number of stems (if necessary) of individual tree.
Life Stage	Expressed as:- Y (Young) SM (Semi-mature) EM (Early mature) M (Mature) OM (Over-mature) V (Veteran) D (Dead)
Physical Condition	Apparent condition expressed as the following categories, based upon a brief visual inspection from the ground only:- Good Fair Poor Dead
Comments / Management Recommendations	General observations, particularly of structural and/or physiological condition (e.g. the presence of any decay and physical defect), and/or preliminary management recommendations and potential for wildlife habitats (not exhaustive).
Estimated remaining contribution (years)	Estimated remaining contribution, in years (<10, 10+,20+,40+)

Tree Quality Assessment Value: Category	Criteria grading with regards to Table 1: BS 5837:2012, expressed as:-	**A** (Trees/Vegetation of high quality and value) **B** (Vegetation of moderate quality and value) **C** (Trees/Vegetation of low quality and value) **U*** (Those 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)
	* Category U trees can have existing or potential conservation value which might be desirable to preserve.	
Tree Quality Assessment Value: Sub - Category	Criteria grading with regards to Table 1: BS 5837:2012, expressed as:-	**1** (Trees with mainly *arboricultural* value) **2** (Trees with mainly *landscape* value) **3** (Trees with mainly *cultural / conservation* value)

Appendix B

Tree Survey Schedule

TREE SURVEY SCHEDULE

Site:	Wythenshawe Sports Ground, Manchester	Surveyor:	D. Cox
Project Schedule Ref:	5460-RPS-XX-EX-SC-AR-9103	Status:	For Information
Drawing Reference:	5460-RPS-XX-EX-DR-AR-9101/9102	Revision:	P01
Survey date:	03/07/2025	Notes:	-

Ref. no	Species	Height (m)	Canopy Spread (m)				Crown Area (m^2)	Stem dia. (mm)	Stem no. at 1.5m	Height of crown clearance (m)	FSB Height (Direction)	Age class	Condition	General Observations Management Recommendations	Estimated remaining contribution (yrs)	Tree Quality Category (BS5837)	RPA Radius (m)
			N	E	S	W											
T1	Acer pseudoplatanus (Sycamore)	14	5	6	5	5	86	780	1	5	3 (NW)	EM	Poor	Low vitality, declining, unable to inspect stem due to ivy, epicormics on stem, dieback in crown, moderate deadwood in the crown, previous branch failures, epicormic growth in crown.	<10	U	9.4
T2	Acer pseudoplatanus (Sycamore)	16	5.5	6.5	5	5	94	680	1	3	3 (N)	EM	Fair	Low vitality, compaction in RPA, minor deadwood in the crown, epicormic growth in crown.	20+	B1	8.2
T3	Quercus robur (Common Oak)	18	4	8	8	9	160	960	1	3	3 (W)	M	Good	Compaction in RPA, minor deadwood in the crown, previous branch failures, crossing branches, epicormic growth in crown.	40+	A2	11.5
T4	Quercus robur (Common Oak)	13	2	6.5	2	7	60	680	1	1.5	2 (E)	SM	Fair	Epicormics on stem, minor deadwood in the crown, previous branch failures, heavily suppressed crown form, epicormic growth in crown.	10+	C2	8.2
#T5	Fraxinus excelsior (Ash)	18	4	4	4	6	63	850	1	1.5	9 (W)	M	Poor	Estimated values due to access, restrited inspection due to ivy, epicormics on stem, moderate deadwood in the crown, previous branch failures, crown distorted due to group pressure, pruning wounds to crown, previous large limb failure.	10+	C2	10.2
#T6	Acer pseudoplatanus (Sycamore)	18	4	5	7	8	106	600	1	1	0.5 (W)	M	Fair	Estimated values due to access, restricted inspection due to vegetation, unable to inspect stem due to ivy, epicormics on stem, multiple stems above 1.5m, moderate deadwood in the crown, previous branch failures, crossing branches, epicormic growth in crown.	20+	B2	7.2
#T7	Acer pseudoplatanus (Sycamore)	18	4	5	7	8	106	500	1	1	1.5 (W)	M	Fair	Estimated values due to access, restricted inspection due to vegetation, unable to inspect stem due to ivy, epicormics on stem, multiple stems above 1.5m, moderate deadwood in the crown, previous branch failures, crossing branches, epicormic growth in crown.	20+	B2	6.0
#T8	Acer pseudoplatanus (Sycamore)	18	6	6	4	8	113	600 600 500	3	1	1.5 (W)	M	Fair	Estimated values due to access, restricted inspection due to vegetation, unable to inspect stem due to ivy, epicormics on stem, stem divides below 1.5m, multiple stems at ground level, moderate deadwood in the crown, previous branch failures, crossing branches, epicormic growth in crown.	20+	B2	11.8
T9	Quercus robur (Common Oak)	8	2	0	1	7	13	280	1	1	1 (W)	SM	Fair	Not plotted on original survey, epicormics on stem, minor deadwood in the crown, previous branch failures, heavily suppressed crown form, epicormic growth in crown.	10+	C2	3.4

Note: This survey is based on a brief visual inspection from the ground.
It is not intended as a full arboricultural inspection.
- indicates estimated values. * - indicates off site tree.

TREE SURVEY SCHEDULE

Site:	Wythenshawe Sports Ground, Manchester	Surveyor:	D. Cox
Project Schedule Ref:	5460-RPS-XX-EX-SC-AR-9103	Status:	For Information
Drawing Reference:	5460-RPS-XX-EX-DR-AR-9101/9102	Revision:	P01
Survey date:	03/07/2025	Notes:	-

			Canopy Spread (m)							Height of					Estimated	Tree	
Ref. no	Species	Height (m)	N	E	S	W	Crown Area (m^2)	Stem dia. (mm)	Stem no. at 1.5m	crown clearance (m)	FSB Height (Direction)	Age class	Condition	General Observations Management Recommendations	remaining contribution (yrs)	Quality Category (BS5837)	RPA Radius (m)
#T10	Acer pseudoplatanus (Sycamore)	20	10	8	10	9	269	1200	1	0.5	6 (S)	M	Fair	Estimated values due to access, restricted inspection due to vegetation, unable to inspect stem due to ivy, epicormics on stem, broken branches in crown, minor deadwood in the crown, previous branch failures, crossing branches, epicormic growth in crown.	40+	A1	14.4
#T11	Acer pseudoplatanus (Sycamore)	17	5	7	8	7	141	450 550	2	0	1.5 (S)	M	Fair	Estimated values due to access, not plotted on original survey, restricted inspection due to vegetation, unable to inspect stem due to ivy, stem divides at ground level, minor deadwood in the crown, previous branch failures, crossing branches, epicormic growth in crown.	20+	B2	8.5
#T12	Fraxinus excelsior (Ash)	22	11	8	11	9	298	1000	1	5	-	M	Fair	Estimated values due to access, unable to inspect stem due to ivy, minor deadwood in the crown, previous branch failures, crossing branches, ash die back - present.	20+	B2	12.0
T13	Quercus robur (Common Oak)	18	7	7	9	8	187	900	1	2	3 (N)	M	Good	Restricted inspection due to vegetation, compaction in RPA, unable to inspect stem due to ivy, minor deadwood in the crown, previous branch failures, crossing branches, epicormic growth in crown.	40+	A2	10.8
#T14	Quercus robur (Common Oak)	18	7	6	4	7	112	700	1	2	3 (N)	M	Good	Estimated values due to access, restricted inspection due to vegetation, unable to inspect stem due to ivy, minor deadwood in the crown, previous branch failures, crossing branches, epicormic growth in crown.	40+	A2	8.4
#T15	Acer pseudoplatanus (Sycamore)	18	7.5	6	5	6.5	122	800	1	1	4 (S)	EM	Fair	Estimated values due to access, restricted inspection due to vegetation, unable to inspect stem due to ivy, epicormics on stem, minor deadwood in the crown, previous branch failures, crossing branches, epicormic growth in crown.	40+	A2	9.6
#T16	Tilia X europaea (Common Lime)	15	5	5	5	5	79	1000	1	0	-	M	Good	Estimated values due to access, restricted inspection due to vegetation, epicormics on stem, minor deadwood in the crown, epicormic growth in crown, inspection limited by epicormic growth throughout tree.	40+	A2	12.0
T17	Quercus robur (Common Oak)	22	3	7	8	10	141	1070	1	4	3 (N)	M	Fair	Minor deadwood in the crown, previous branch failures, crown distorted due to group pressure, crossing branches, epicormic growth in crown, major branch failure at 5m requires areal inspection.	20+	B2	12.8
#T18	Quercus robur (Common Oak)	22	4.5	3.5	4.5	6	66	600	1	4	3 (N)	M	Fair	Estimated values due to access, unable to inspect stem due to ivy, stem divides above 1.5m, minor deadwood in the crown, previous branch failures, crown distorted due to group pressure, crossing branches, epicormic growth in crown.	40+	A2	7.2

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Drawing Reference:	5460-RPS-XX-EX-DR-AR-9101/9102	Revision:	P01
Survey date:	03/07/2025	Notes:	-

			Canopy Spread (m)							Height of					Estimated	Tree	
Ref. no	Species	Height (m)	N	E	S	W	Crown Area (m^2)	Stem dia. (mm)	Stem no. at 1.5m	crown clearance (m)	FSB Height (Direction)	Age class	Condition	General Observations Management Recommendations	remaining contribution (yrs)	Quality Category (BS5837)	RPA Radius (m)
T19	Acer pseudoplatanus (Sycamore)	22	8	9	5	6	147	820	1	1	2.5 (NW)	M	Fair	Not plotted on original survey, restricted inspection due to vegetation, leaning east, unable to inspect stem due to ivy, epicormics on stem, minor deadwood in the crown, previous branch failures, crown distorted due to group pressure, epicormic growth in crown.	40+	A2	9.8
#T20	Crataegus monogyna (Hawthorn)	8	4	4	3	4	44	300 200 200	3	1	-	M	Fair	Estimated values due to access, restricted inspection due to vegetation, unable to inspect stem due to ivy, stem divides at ground level, moderate deadwood in the crown, previous branch failures, crossing branches.	20+	B2	4.9
#T21	Tilia X europaea (Common Lime)	15	5	5	5	5	79	1000	1	0	-	M	Good	Estimated values due to access, restricted inspection due to vegetation, epicormics on stem, minor deadwood in the crown, epicormic growth in crown, inspection limited by epicormic growth throughout tree.	40+	A2	12.0
T22	Acer pseudoplatanus (Sycamore)	20	5	7	7.5	5	118	850	1	2	2.5 (S)	M	Good	Not plotted on original survey, compaction in RPA, leaning east, unable to inspect stem due to ivy, stem divides above 1.5m, minor deadwood in the crown, previous branch failures, epicormic growth in crown.	40+	A2	10.2
T23	Populus nigra 'Italica' (Lombardy Poplar)	28	4	4	4	4	50	820	1	8	-	M	Fair	Not plotted on original survey, leaning east, multiple stems above 1.5m, included branch unions, epicormic growth in crown.	20+	B2	9.8
T24	Quercus robur (Common Oak)	15	8	5	1.5	5	66	700	1	2.5	5 (N)	M	Fair	Not plotted on original survey, leaning north, unable to inspect stem due to ivy, epicormics on stem, minor deadwood in the crown, previous branch failures, heavily suppressed crown form, epicormic growth in crown.	20+	B2	8.4
T25	Fraxinus excelsior (Ash)	15	5	5	5	3	63	800	1	3	5 (S)	M	Poor	Restricted inspection due to vegetation, no long term potential, unable to inspect stem due to ivy, epicormics on stem, dieback in crown, moderate deadwood in the crown, previous branch failures, epicormic growth in crown, ash die back - moderate extent.	10+	C1	9.6
#T26	Tilia X europaea (Common Lime)	20	5	5	5	5	79	1000	1	0	-	M	Good	Estimated values due to access, restricted inspection due to vegetation, epicormics on stem, minor deadwood in the crown, epicormic growth in crown, inspection limited by epicormic growth throughout tree.	40+	A2	12.0
T27	Acer pseudoplatanus (Sycamore)	18	3	3	5	3	38	360	1	0	0.5 (N)	EM	Fair	Unable to inspect stem due to ivy, epicormics on stem, minor deadwood in the crown, crown distorted due to group pressure, squirrel damage in crown.	20+	B2	4.3
T28	Acer platanoides (Norway Maple)	18	6	4	6	6	94	500	1	2	3 (S)	EM	Good	Stem divides above 1.5m, included bark present in fork, minor deadwood in the crown, crossing branches.	40+	A2	6.0

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			Canopy Spread (m)							Height of					Estimated	Tree	
Ref. no	Species	Height (m)	N	E	S	W	Crown Area (m^2)	Stem dia. (mm)	Stem no. at 1.5m	crown clearance (m)	FSB Height (Direction)	Age class	Condition	General Observations Management Recommendations	remaining contribution (yrs)	Quality Category (BS5837)	RPA Radius (m)
T29	Acer pseudoplatanus (Sycamore)	9	4	2	2	4	28	290	1	2	2 (W)	SM	Poor	Epicormics on stem, minor deadwood in the crown, heavily suppressed crown form.	10+	C2	3.5
T30	Fraxinus excelsior (Ash)	21	7	7	7	10	187	800	1	4.5	5 (SW)	M	Poor	Restricted inspection due to vegetation, no long term potential, unable to inspect stem due to ivy, epicormics on stem, dieback in crown, moderate deadwood in the crown, previous branch failures, epicormic growth in crown, ash die back - moderate extent.	10+	C1	9.6
T31	Acer pseudoplatanus (Sycamore)	15	3.5	3	3.5	3.5	36	430	1	0	0 (S)	EM	Fair	Restricted inspection due to vegetation, epicormics on stem, suckers around stem base, stem divides at ground level, minor deadwood in the crown, crown distorted due to group pressure, crossing branches.	20+	B1	5.2
#T32	Acer pseudoplatanus (Sycamore)	15	6	6	6	4	94	750	1	0	0.5 (N)	EM	Good	Estimated values due to access, epicormics on stem, minor deadwood in the crown, previous branch failures, crossing branches, epicormic growth in crown.	40+	A2	9.0
#T33	Tilia X europaea (Common Lime)	15	5	5	5	5	79	1000	1	0	-	M	Good	Estimated values due to access, restricted inspection due to vegetation, epicormics on stem, minor deadwood in the crown, epicormic growth in crown, inspection limited by epicormic growth throughout tree.	40+	A2	12.0
T34	Acer platanoides (Norway Maple)	18	4	3	6	4	55	480	1	3	2.5 (S)	EM	Fair	Multiple stems above 1.5m, moderate deadwood in the crown, crown distorted due to group pressure, epicormic growth in crown.	20+	B2	5.8
T35	Quercus robur (Common Oak)	14	4	5	5	4.5	67	670	1	3	3 (W)	M	Fair	Poor shape & form, cavity on stem, epicormic growth in crown, bees nest in main stem.	20+	B1	8.0
T36	Acer platanoides (Norway Maple)	16	4.5	5	4.5	5	71	580	1	3	3 (N)	EM	Fair	Stem divides above 1.5m, minor deadwood in the crown, epicormic growth in crown.	20+	B2	7.0
T37	Quercus robur (Common Oak)	16	6	6	6	7.5	127	810	1	2	2 (W)	M	Fair	Low bud/leaf density, minor deadwood in the crown, previous branch failures, epicormic growth in crown.	40+	A1	9.7
T38	Tilia X europaea (Common Lime)	15	5	5	5	4	71	500 500 500	3	0	3 (N)	M	Good	Restricted inspection due to vegetation, epicormics on stem, minor deadwood in the crown, epicormic growth in crown, inspection limited by epicormic growth throughout tree.	40+	A2	10.4

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			Canopy Spread (m)							Height of					Estimated	Tree	
Ref. no	Species	Height (m)	N	E	S	W	Crown Area (m^2)	Stem dia. (mm)	Stem no. at 1.5m	crown clearance (m)	FSB Height (Direction)	Age class	Condition	General Observations Management Recommendations	remaining contribution (yrs)	Quality Category (BS5837)	RPA Radius (m)
T39	Quercus robur (Common Oak)	17	6	6	4	2	57	500	1	1	2 (E)	EM	Poor	Poor shape & form, unable to inspect stem due to ivy, epicormics on stem, minor deadwood in the crown, previous branch failures, heavily suppressed crown form, epicormic growth in crown.	20+	B2	6.0
#T40	Acer pseudoplatanus (Sycamore)	22	7	7	7	7	154	700 750 600	3	0	4 (S)	M	Fair	Estimated values due to access, unable to inspect stem due to undergrowth, epicormics on stem, multiple stems at ground level, minor deadwood in the crown, previous branch failures, crossing branches, epicormic growth in crown.	40+	A2	14.3
T41	Quercus robur (Common Oak)	14	3	3	4	5	42	360	1	2	0 (N)	EM	Fair	Unable to inspect stem due to ivy, epicormics on stem, minor deadwood in the crown, previous branch failures, crown distorted due to group pressure, epicormic growth in crown.	20+	B2	4.3
T42	Quercus robur (Common Oak)	8	0.5	3	4	1	14	210	1	0	0.5 (E)	SM	Fair	Unable to inspect stem due to ivy, epicormics on stem, minor deadwood in the crown, heavily suppressed crown form, epicormic growth in crown.	20+	B2	2.5
#T43	Acer pseudoplatanus (Sycamore)	22	7	9	7	7	176	700 750 600	3	0	4 (E)	M	Fair	Estimated values due to access, unable to inspect stem due to undergrowth, epicormics on stem, multiple stems at ground level, minor deadwood in the crown, previous branch failures, crossing branches, epicormic growth in crown.	40+	A2	14.3
T44	Quercus robur (Common Oak)	18	2	6	8	5	82	670	1	2	2.5 (SE)	EM	Fair	Stem divides above 1.5m, multiple stems above 1.5m, moderate deadwood in the crown, previous branch failures, crown distorted due to group pressure, crossing branches, epicormic growth in crown.	40+	A2	8.0
T45	Quercus robur (Common Oak)	7	4	5	5	4	64	360	1	1	1 (SW)	SM	Fair	Not plotted on original survey, poor shape & form, stem divides below 1.5m, minor deadwood in the crown, epicormic growth in crown.	40+	A1	4.3
T46	Quercus robur (Common Oak)	4	2	2	2	2	13	120	1	0	-	SM	Fair	Not plotted on original survey.	10+	C1	1.4
T47	Acer pseudoplatanus (Sycamore)	13	3.5	3.5	3.5	4	41	490	1	1	-	EM	Fair	Unable to inspect stem due to ivy, epicormics on stem, suckers around stem base, multiple stems at ground level, minor deadwood in the crown, crossing branches, epicormic growth in crown.	20+	B1	5.9
G1	Crataegus monogyna (Hawthorn)	10	See	plans	for	extents	-	400 (avg.)	-	1	-	M	Fair	Not plotted on original survey, restricted inspection due to vegetation, unable to inspect stem due to ivy, stem divides below 1.5m, moderate deadwood in the crown, previous branch failures, crossing branches.	20+	B2	4.8

Note: This survey is based on a brief visual inspection from the ground.
It is not intended as a full arboricultural inspection.
- indicates estimated values. * - indicates off site tree.

TREE SURVEY SCHEDULE

Site:	Wythenshawe Sports Ground, Manchester	Surveyor:	D. Cox
Project Schedule Ref:	5460-RPS-XX-EX-SC-AR-9103	Status:	For Information
Drawing Reference:	5460-RPS-XX-EX-DR-AR-9101/9102	Revision:	P01
Survey date:	03/07/2025	Notes:	-

			Canopy Spread (m)							Height of					Estimated	Tree	
Ref. no	Species	Height (m)	N	E	S	W	Crown Area (m^2)	Stem dia. (mm)	Stem no. at 1.5m	crown clearance (m)	FSB Height (Direction)	Age class	Condition	General Observations Management Recommendations	remaining contribution (yrs)	Quality Category (BS5837)	RPA Radius (m)
G2	Acer pseudoplatanus (Sycamore)	14	See	plans	for	extents	-	300 (avg.)	-	0	-	SM	Poor	Not plotted on original survey, no long term potential, unable to inspect stem due to ivy, epicormics on stem, moderate deadwood in the crown, unbalanced crown shape, heavily suppressed crown form.	<10	U	3.6
G3	Acer pseudoplatanus (Sycamore),Quercus robur (Common Oak),Fraxinus excelsior (Ash)	18	See	plans	for	extents	-	500 (avg.)	-	3	-	EM	Fair	Not plotted on original survey, ivy on tree, moderate deadwood in the crown, previous branch failures, crown distorted due to group pressure, epicormic growth in crown.	40+	A2	6.0
G4	Quercus robur (Common Oak)	5	See	plans	for	extents	-	100 100 100 150 150 200 (avg.)	-	0	-	EM	Fair	Not plotted on original survey, collapsing, multi stemmed form, multiple stems at ground level, minor deadwood in the crown, crossing branches.	10+	C2	4.1
#G5	Salix alba (White Willow),Salix fragilis (Crack Willow),Salix caprea (Goat Willow),Fraxinus excelsior (Ash),Quercus robur (Common Oak)	18	See	plans	for	extents	-	600 (avg.)	-	1	-	EM	Fair/Poor	Estimated values due to access, not plotted on original survey, unable to inspect stem due to undergrowth, broken branches in crown, minor deadwood in the crown, previous branch failures, crossing branches, epicormic growth in crown.	20+	B2	7.2
G6	Populus nigra 'Italica' (Lombardy Poplar)	32	See	plans	for	extents	-	1250 (avg.)	-	1	-	M	Fair	Compaction in RPA, leaning east, epicormics on stem, multiple stems above 1.5m, included bark present in fork, moderate deadwood in the crown, previous branch failures, included branch unions, epicormic growth in crown.	20+	B2	15.0
G7	Quercus robur (Common Oak)	5	See	plans	for	extents	-	100 (avg.)	-	1	-	Y	Good	Not plotted on original survey, minor deadwood in the crown.	10+	C2	1.2
W1	Fraxinus excelsior (Ash),Prunus avium (Wild Cherry),Populus tremula (Aspen),Malus (Apple),Salix caprea (Goat Willow),Crataegus monogyna (Hawthorn)	16	See	plans	for	extents	-	450 (avg.)	-	1	-	EM	Fair/Poor	Minor deadwood in the crown, previous branch failures, ash die back - present, variable age from y to em, form is generally poor, some crowns overhang the access road in a few places, concrete footpath and ditch between the woodland and the road.	20+	B2	5.4

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It is not intended as a full arboricultural inspection.
- indicates estimated values. * - indicates off site tree.

TREE SURVEY SCHEDULE

Site:	Wythenshawe Sports Ground, Manchester	Surveyor:	D. Cox
Project Schedule Ref:	5460-RPS-XX-EX-SC-AR-9103	Status:	For Information
Drawing Reference:	5460-RPS-XX-EX-DR-AR-9101/9102	Revision:	P01
Survey date:	03/07/2025	Notes:	-

			Canopy Spread (m)							Height of					Estimated	Tree	
Ref. no	Species	Height (m)	N	E	S	W	Crown Area (m^2)	Stem dia. (mm)	Stem no. at 1.5m	crown clearance (m)	FSB Height (Direction)	Age class	Condition	General Observations Management Recommendations	remaining contribution (yrs)	Quality Category (BS5837)	RPA Radius (m)
S1	Crataegus monogyna (Hawthorn),Fraxinus excelsior (Ash),Prunus avium (Wild Cherry),Sorbus intermedia (Swedish Whitebeam),Corylus avellana (Hazel),Sambucus nigra (Elder)	5	See	plans	for	extents	-	100 (avg.)	-	0	-	SM	Fair/Poor	Mixed species some old hedge, some natural regeneration and new planting.	10+	C2	-
S2	Crataegus monogyna (Hawthorn)	5	See	plans	for	extents	-	100 (avg.)	-	1	-	M	Fair	Section of old hedge, unmanaged.	10+	C2	-
S3	Crataegus monogyna (Hawthorn),Corylus avellana (Hazel),Sambucus nigra (Elder),Prunus spinosa (Blackthorn),Salix caprea (Goat Willow)	4	See	plans	for	extents	-	100 (avg.)	-	0	-	SM	Fair/Poor	Dense scrub behind barrier to m60.	10+	C2	-

Note: This survey is based on a brief visual inspection from the ground.
It is not intended as a full arboricultural inspection.
- indicates estimated values. * - indicates off site tree.

Appendix C

Tree Constraints Plan



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Key

- Survey boundary.
- Tree with numbered reference. Canopy spread and coloured BS5837:2012 tree quality category as shown below. # = Tree details estimate (inaccessible tree) * = Tree in off site location
- Tree group plotted with individual stem locations and numbered reference. Canopy extents coloured to match BS5837:2012 tree quality category as shown below.
- Tree or Vegetation group with numbered reference.Canopy extents coloured to match BS5837:2012 tree quality category as shown below and dashed line to show indicative stem line.
- Woodland with numbered reference. Canopy extents coloured to match BS5837:2012 tree quality category as shown below and dashed line to show indicative tree line.
- Area of Scrub with numbered reference. Dashed line to show indicative stem line.

BS 5837:2012 Tree Quality Categories - Table 1

- Category A - High quality
- Category B - Moderate quality
- Category C - Low quality
- Category U - Unsuitable for retention

- Direction of first significant branch
- Root protection area (RPA) Calculated in accordance with Section 4.6 - BS5837:2012

NOTES:

- Refer to RPS Tree Survey Report & Schedule for further details.
- Survey based on a visual inspection from the ground and is not intended as a full arboricultural inspection.
- Plan produced in accordance with recommendations set out in BS 5837:2012 - 'Trees in Relation to design, demolition and construction'
- Due to the legal protection afforded to breeding birds vegetation removal should not take place during the bird nesting period; generally, although not restricted to, March - August inclusive.
- Survey based upon Aerial photograph ©Microsoft Corporation© 2025 Maxar ©CNES(2025) Distribution Airbus DS

N

Rev	Description	By	Ckd	Date
P01	First Issue	SH	DC	07.07.25

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Project: Wythenshawe Sports Ground

Title: Tree Survey

Status	Scale	Date Created
Information	1:500 @A0	07.07.2025

Task Team Manager	Information Author	Task Information Manager
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RPS Project Number	Suitability	Revision
794-PLN-LAN-5460	S3	P01

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1:250 @ A0 / 1:500 @ A1: 0m, 5m, 10m, 15m, 20m, 25m, 30m, 40m, 45m, 50m

Key

- Survey boundary.
- T1 — Tree with numbered reference. Canopy spread and coloured BS5837:2012 tree quality category as shown below.
  - # = Tree details estimate (Inaccessible tree)
  - * = Tree in off site location
- G1 — Tree group plotted with individual stem locations and numbered reference. Canopy extents coloured to match BS5837:2012 tree quality category as shown below.
- G1 — Tree or Vegetation group with numbered reference.Canopy extents coloured to match BS5837:2012 tree quality category as shown below and dashed line to show indicative stem line.
- W1 — Woodland with numbered reference. Canopy extents coloured to match BS5837:2012 tree quality category as shown below and dashed line to show indicative tree line.
- S1 — Area of Scrub with numbered reference. Dashed line to show indicative stem line.

BS 5837:2012 Tree Quality Categories - Table 1

- Category A - High quality
- Category B - Moderate quality
- Category C - Low quality
- Category U - Unsuitable for retention

- Direction of first significant branch
- Root protection area (RPA) Calculated in accordance with Section 4.6 - BS5837:2012

NOTES:

- Refer to RPS Tree Survey Report & Schedule for further details.
- Survey based on a visual inspection from the ground and is not intended as a full arboricultural inspection.
- Plan produced in accordance with recommendations set out in BS 5837:2012 - 'Trees in Relation to design, demolition and construction'.
- Due to the legal protection afforded to breeding birds vegetation removal should not take place during the bird nesting period; generally, although not restricted to, March - August inclusive.
- Survey based upon Aerial photograph ©Microsoft Corporation© 2025 Maxar ©CNES(2025) Distribution Airbus DS

W1
W1
W1
S3
G7
G7
G7

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Rev	Description	By	Ckd	Date
P01	First Issue	SH	DC	07.07.25

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Client: Surfacing Standards Ltd.

Project: Wythenshawe Sports Ground

Title: Tree Survey

Status	Scale	Date Created
Information	1:500 @A0	07.07.2025

Task Team Manager	Information Author	Task Information Manager
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794-PLN-LAN-5460	S3	P01

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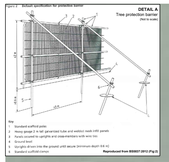
Appendix D

Tree Removal & Protection Plan


G3
T43
T42
G2
T44
T41
G2
T40
T39
T38
T37
T36
T35
T34
T33
T32
T31
T30
T29
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T11
S1
T10
S1
T8
T7
T9
T6
T5
T4
T3
T2
T1
G6
W1
S3
T45
G4
ACCESS
G4
G4
T46
T47
G5
SPORTS PAVILION
GROUND KEEPING SHED
STORE
STORE
STORE

Figure 3 Example scaffold design for protective barrier

DETAIL A
Tree protection barrier
Not to scale

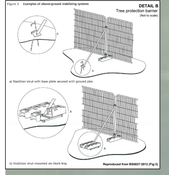


Key
1. Standard scaffold pole
2. Heavy duty 'Load' galvanised tube and wedge/ cash (VEE panel)
3. Tubular crossed for upright and cross-members with wire ties
4. Ground level
5. Vertical tube driven into the ground until secure (minimum depth 0.6 m)
6. Supplied scaffold clamps

Reproduced from BS5837:2012 (Fig 2)

Figure 4 Examples of above-ground stabilising systems

DETAIL B
Tree protection barrier
Not to scale



a) Stabilizer strut with base plate secured with ground pins

b) Stabilizer strut mounted on block tray

Reproduced from BS5837:2012 (Fig 3)

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1:250 @ A3	0m	5m	10m	15m	20m	25m	30m	40m	50m
1:500 @ A1	0m	10m	20m	30m	40m	50m	60m	80m	100m

Key

- Survey boundary.
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- G1 — Tree group plotted with individual stem locations and numbered reference. Canopy extents coloured to match BS5837:2012 tree quality category as shown below.
- G1 — Tree or Vegetation group with numbered reference.Canopy extents coloured to match BS5837:2012 tree quality category as shown below and dashed line to show indicative stem line.
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BS 5837:2012 Tree Quality Categories - Table 1

- Category A - High quality
- Category B - Moderate quality
- Category C - Low quality
- Category U - Unsuitable for retention

- Direction of first significant branch
- Root protection area (RPA) Calculated in accordance with Section 4.6 - BS5837:2012
- Tree to be removed with numbered reference. Canopy spread and coloured BS5837:2012 tree quality category as shown above.
- Above ground construction requiring soil level changes. Works to be completed as part of landscaping, to be undertaken after main construction works have been completed.
- TPF — Temporary protective fencing in accordance with Section 6.2 - BS5837:2012. See inset details for example details.

NOTES

- Refer to RPS Tree Survey Report & Schedule for further details.
- Survey based on a visual inspection from the ground and is not intended as a full arboricultural inspection.
- Plan produced in accordance with recommendations set out in BS 5837:2012 - 'Trees in Relation to design, demolition and construction'.
- Due to the legal protection afforded to breeding birds vegetation removal should not take place during the bird nesting period; generally, although not restricted to, March - August inclusive.
- Survey based upon Aerial photograph ©Microsoft Corporation© 2025 Maxar ©CNES(2025) Distribution Airbus DS
- Pedestrian/ vehicular emergency access routes to be maintained at all times.
- All protective fencing to be completed and approved by LPA / CA prior to commencement of any site works
- All works to conform with requirements of:
  BS 3998:2010 - Tree Works
  BS 5837:2012 - Trees in relation to design, demolition and construction



N

Rev	Description	By	Chd	Date
P01	First Issue	PBH	DC	24.03.26

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Project: Wythenshawe Sports Ground

Title: Tree Removal and Protection Plan

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Task Team Manager	Information Author	Task Information Manager
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794-PLN-LAN-5460	S3	P01

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Appendix E

Example Tree Protection Barriers (BS5837:2012 Fig 2 & 3)

Figure 2 **Default specification for protective barrier**

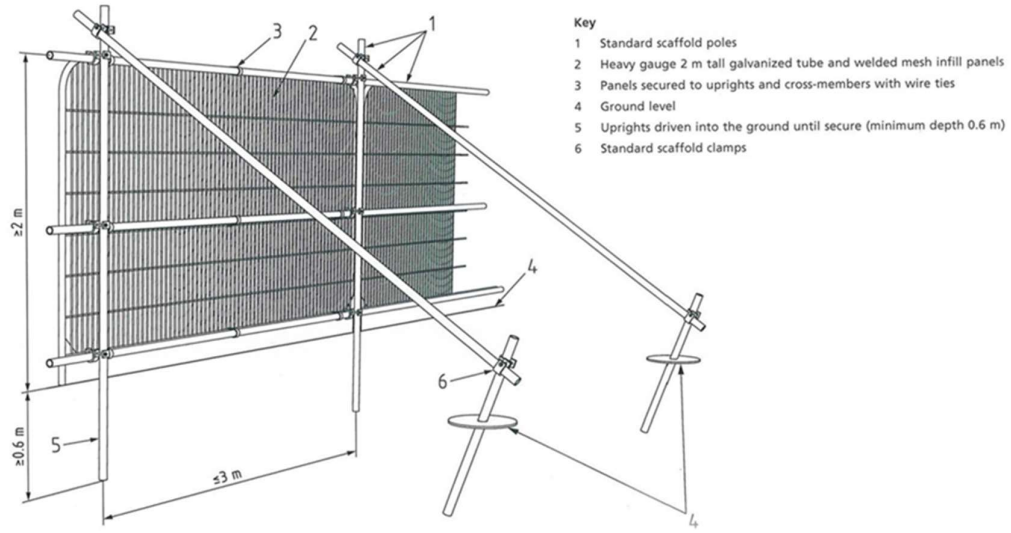
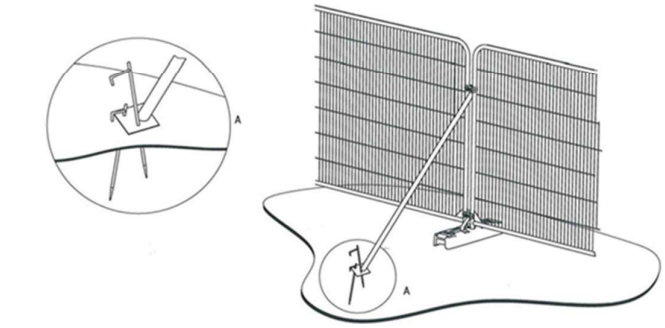
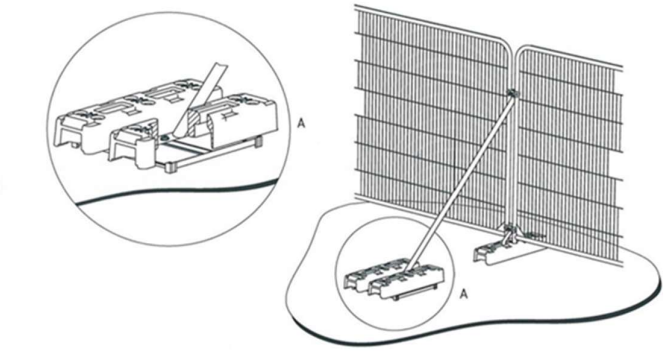


Figure 3 **Examples of above-ground stabilizing systems**



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

Appendix F

Construction Exclusion Zone (CEZ) Sign





Appendix G

Arboricultural Glossary

Age-class - A general classification of the tree into either - young, semi-mature, early mature, mature, over-mature, or veteran.

Apical Bud/Shoot – The apical bud, also known as the leading shoot, is responsible for shoot extension and is dominant.

Apical Dominance – A singular, leading shoot remains dominant.

Arboreal - In connection with, or in relation to, trees.

Arboriculturist – Person who has, through relevant education, training and experience, gained recognised qualifications and expertise in the field of trees in relation to construction.

Arboricultural Implications Assessment (AIA) – Study, undertaken by an arboriculturist, to identify, evaluate and possibly mitigate the extent of direct and indirect impacts on existing trees that may arise as a result of the implementation of any site layout proposal.

Arboricultural Method Statement (AMS) – Methodology for the implementation of any aspect of development that has the potential to result in the loss of or damage to a tree. Note The AMS is likely to include details of an on-site tree protection monitoring regime.

Asymmetric crown- Crowns that have a morphological bias in a particular direction. This can give the tree an aesthetically unfavourable appearance but can also subject the tree to uneven wind- loading forces and potentially result in failure.

Basal – Referring to the bottom part of a tree's stem.

Basifugal mortality – A natural process seen in trees in an advanced life stage whereby the trees extremities die back, and the inner crown expresses new growth, in order to conserve energy reserves.

Bifurcated - A growth characteristic, where two stems of similar size grow from the same point. Can create an inherent weakness.

Branch union/junction - The point at which a branch joins a larger stem. Can be a point of weakness, especially in certain species.

Brown Rot- Decay caused by certain species of fungus which results in the affected wood becoming brittle and liable to suddenly 'break out', especially if in key structural areas.

Buttress flares – Extensions of the basal stem of a tree that provide additional structural support. See reaction wood.

Bifurcated- A growth characteristic, where two or more stems of similar size grow from the same point. Can create an inherent weakness.

Cable braces – Cable braces used to support the crown of a tree, reduce impacts caused by wind- throw oscillation.

Canker – A clearly defined area of dead and sunken or malformed bark, caused by bacteria or fungi. Can have a bearing on structural integrity of infected limb(s) depending on size and location.

Central leader- See apical dominance.

Chalara ash dieback- A disease affecting ash trees caused by the fungus *Hymenoscyphus fraxineus*. Usually fatal, the disease causes leaf loss and crown dieback in infected trees. It was first confirmed in Britain in 2012.

Chlorosis- yellowing of leaves which can be caused by a range of factors, often an indicator of nutrient deficiency.

Compaction - The compressing & hardening of soil around tree root systems, due to vehicular/pedestrian use etc. Loss of pore space between soil granules limits water movement and gaseous exchange and inhibits root growth.

Companion shelter- Shelter provided by neighbouring trees in groups to one another, factors such as wind throw are reduced due to supporting branches and interlocking root systems. Removing individual trees on the peripheries of such groups can expose neighbouring trees to environmental factors they have not previously been subjected to and can lead to individual failure.

Competent person – Person who has training and experience relevant to the matter being addressed and an understanding of the requirements of the particular task being approached

Note 1 A competent person understands the hazards and the methods to be implemented to eliminate or reduce the risks that can arise. For example, when on site, a competent person is able to recognise at all times whether it is safe to proceed.

Note 2 A competent person is able to advise on the best means by which the recommendations of this British Standard may be implemented.

Condition – Assessment based on a visual and professional view giving consideration to many factors such as tree health, structural integrity and suitability of its position.

Conservation dead- wooding- Removal of deadwood using 'coronet cuts' that mimic the way a branch would naturally break off, maximising deadwood habitat availability for invertebrates.

Coppice - The method of managing trees by cutting the stems at between 1.0 inch and 1.0 foot from the ground level on a regular cycle, the cut stumps of the trees or shrubs are allowed to re-grow many new stems.

Crown spread - Gives distances between extreme limits of the crown and the stem, usually along the four compass points. Helps to show crown symmetry.

Crown Reduction – The removal of branch ends to reduce the extreme limits of a tree's branch spread and height.

Crown Thin – The removal of selected branches within the crown to thin the internal branch structure.

D.B.H. - 'Diameter at Breast Height', an industry standard to gauge tree stem size and development. Within arboriculture, breast height is taken to be 1.5m above ground level.

Dieback - The reduction in crown vigour and extension growth progressing to death of distal parts; often associated with decline.

Epicormic growth - New growth from dormant buds that can often form tenuous attachments. Although some species readily form such shoots, it can be an indication of stress.

Form - A general assessment of the shape and position of the tree within its environment.

Hanger – Term used to describe a branch that has become detached and is being supported by other branches. Can be a hazard to persons and property below.

Hazard Beam – After the loss of a distal part, a limb concentrates growth upwards creating adverse end weights that can render the limb susceptible to failure.

Included bark – Growth characteristic usually caused when two or more stems/branches growing in close proximity 'fuse' together entrapping the bark from when the parts were separate in the middle, creating a structural weakness.

Invertebrate tower – Pollarding of a (usually dead) tree to a safe height that leaves part of the main stem as a deadwood habitat for invertebrate species.

Occlusion/Occluded – Normally used to describe the overgrowth of a wound. Also, immoveable foreign objects in contact with a tree part can become encased or 'occluded' by the tree as it grows incrementally.

Pathogen - An agent that causes disease, especially a living microorganism such as a bacterium or fungus.

Phototropic growth – Growth responding to a light stimulus i.e. the sun. This can influence the form of a tree, particularly where other factors e.g. buildings or other trees, affect the amount/ direction light is received.

Pollard – The removal and subsequent regular re-removal of the crown of a tree above animal browsing height. Can be an effective method of controlling the size of trees in urban areas. This is ideally begun in the trees early stages and maintained throughout its life.

Reaction wood - Essentially additional wood laid down by the tree to compensate for structural defects such as cavities.

Rhizosphere - The rhizosphere is the narrow region of soil that is directly influenced by root secretions and associated soil microorganisms. In particular, mycorrhizal fungi form a symbiotic relationship with trees and assist in the assimilation of phosphates essential to the tree's health.

Ring barking/Girdling – the removal of bark around the entire circumference of a stem or branch, causing the death of all distal parts.

Root Protection Area (RPA) – Layout design tool indicating the area surrounding a tree that contains sufficient rooting volume to ensure the survival of the tree, shown in plan form in m^2.

Scaffold limbs - The main structural branches within the crown.

Tree Removal & Protection Plan – scale drawing prepared by an arboriculturist showing the finalised layout proposals, tree retention and tree and landscape protection measures detailed within the AMS, which can be shown graphically.

U.L.E – 'Useful Life Expectancy' is an estimate based on currently known factors of the possible remaining life of the tree as an asset. AKA 'Estimated remaining contribution'.

Veteran tree – Tree that, by recognised criteria, shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned.

Vigour - A general classification, as to the present and future potential growth and development of a tree. A comment regarding the health status of the tree specific to its species.

White Rot - A type of decay caused by certain species of fungi which results in the affected wood becoming flexible with little compressive strength.