

Arboricultural Impact Assessment

Nine Acre Field
Chester Road
Wrexham

Ref:
AIA/NAR/06/21

Date:
18th June 2021

Commissioned by:
Ms. J Wagstaff
on behalf of
Lawray LTD
for
Wrexham County Borough Council

Prepared by
S. Shields

Arboricultural Impact Assessment

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Chester Road

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This Arboricultural Impact Assessment has been prepared in accordance with the protocols, standards and procedures set out in BS 5837: 2012 'Trees in relation to design, demolition and construction'.

Planning permission is being sought to develop site to provide new primary school building.

All trees on and immediately adjacent to the site have been surveyed and assessed in accordance with the recommendations of BS5837: 2012. The survey assessed twenty-nine individual trees and four groups of trees, ranging in quality and amenity value from high (4), moderate (7) to low (22)

The proposed development would require the removal of four trees, but this would not significantly impact on the amenity provided by the trees on the site or wider area. There is ample opportunity for new planting on the site.

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Instruction

- 1.1 Shields Arboricultural Consultancy received instructions from Ms J. Wagstaff of Lawray Architects LTD on behalf of Wrexham County Borough Council to undertake an arboricultural impact assessment at the above location. The client or their agents may copy and distribute this report as required for the purpose of applying for planning permission for or preparing any documents or plans for this or future applications at this site.
- 1.2 Planning permission is being sought to develop site to provide a school along with car parking and sports pitches. A site layout plan ref: NAS-LAW-X-G00-DR A-901001 Rev. PO5 has been provided and is considered in this report.

Scope & Limitations

- 2.1 The purpose of the report is to assess the environmental and amenity values of all trees on or adjacent to the area affected by the proposed development and is based on a site assessment undertaken 8th June 2021 by S. Shields, principal consultant Shields Arboricultural Consultancy. The report will assess the long-term contribution that the trees can make to the area and the arboricultural implications of retaining them and seek to find a satisfactory juxtaposition between the trees and the new development. The report will assess the potential impact that may arise as a result of the proposed construction works and make recommendations for protecting trees, hedges and shrubs where appropriate
- 2.2 The report is prepared in accordance with the recommendations of the British Standard Document BS 5837: 2012 'Trees in Relation to Construction'.
- 2.3 This report is not an ecological assessment and does not identify habitats or constitute a protected species survey.

Statutory Controls & Obligations

- 3.1 Forestry Act; the felling of trees is controlled by the Forestry Act, which requires that a felling licence is obtained prior to cutting down any trees. The Forestry Act does not apply to the felling of trees growing within an orchard, private garden, churchyard or public open space. The Forestry Commission has the responsibility for enforcing the Forestry Act.
- 3.2 Tree Preservation Orders & Conservation Areas; Local Authorities have specific powers under the Town & Country Planning Act 1990 as amended, to protect trees through the use of Tree Preservation Orders. Where trees are protected under such orders it is a criminal offence (subject to any exemptions for which provision may be made by the act or order) to undertake, cause or permit the cutting down, topping, lopping, uprooting, wilful damage or wilful destruction of trees except with the consent of the local planning authority. Similar controls apply to all trees growing within a designated Conservation Area.

- 3.3 Bats, wild birds and other protected species; The Wildlife & Countryside Act & the Conservation (Natural Habitats & C.) Regulations make it an offence to disturb or destroy bats and bat roosts and wild birds and their nests. Other species of plant and animal are also protected. These creatures often inhabit trees and sufficient care must be taken to ensure they are not affected during forestry and arboricultural works.

Site description

- 4.1 The proposed development site is at Nine Acre Fields, a large area of open space, formerly used as a football training ground. The site is located in the suburb of Rhos-Ddu, just to the north of the town centre of Wrexham. The site has boundaries with Rhosnesni Lane to the north, Chester Road to the east, Westminster Drive to the south and residential dwelling to the east. Access to the site is currently off Westminster Drive
- 4.2 The site is level and fairly even and at an elevation of 85 AOD. There are a number of individual trees and groups of trees on the site, situated around the boundaries.



Soils

- 4.3 The site is free draining with no areas of waterlogging. Geological maps indicate a glaciofluvial drift of sand and gravel over a sandstone, mudstone and conglomerate lithology. The highway and existing structures would create barriers to root development.

*NB. This soil assessment is undertaken in situ using visual and manual techniques and is **only** for the purpose of establishing the influence of site soils on tree growth. The assessment **must not** be relied upon to inform any engineering decisions.*

Development Proposal

- 5.1 Planning permission is being sought to develop site to provide a new primary school along with access, car parking areas, sports pitches, forest schools site and open space.



Tree Survey Methodology

- 6.1 All trees within and adjacent to the site have been assessed where they are within 15 m of any area that may be disturbed as a result of the proposed development and have a stem diameter over 75mm at 1.5 metres. Measurements have been taken in accordance with the procedures and protocols set out in BS 5837: 2012 and the Forest Mensuration Handbook. Height measurements are approximate unless otherwise stated. Trees have been assessed as individuals, groups or woodlands as appropriate. Where access to trees has been restricted, either as a result of their situation on private land or where vegetation or ground conditions are unfavourable, an estimation of trunk diameter has been made. This entails using a set of callipers to approximate the measurement. Estimates are rounded up to provide a margin. This technique has only been used where there is a sufficient buffer between the RPAs and any area disturbed by development. Where trees are in woodlands or groups only the outside edge trees are assessed unless there are larger trees with RPAs or crowns that would overlap the edge trees.
- 6.2 BS 5837: 2012 provides the framework through which tree can be categorised in terms of their health, amenity value and long-term viability for retention on a development site. There are four categories, A,B,C & U.

Category A: Trees of high quality and value in such a condition as to be able to make a substantial contribution (a minimum of 40 years)

- 1 Trees that are particularly good examples of their species, or essential components of groups or formal arboricultural features.
- 2 Trees, groups or woodlands that provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance.
- 3 Trees, groups or woodlands of significant conservation, historical, commemorative or other value.

Category B: Trees of moderate quality and value in such a condition to make a significant contribution (a minimum of 20 years)

- 1 Trees that might be included in a higher category but are downgraded because of impaired condition.
- 2 Trees present in numbers, usually as groups of woodlands that form distinctive landscape features.
- 3 Trees with clearly identifiable conservation or other cultural benefits.

Category C: Trees of low quality and value currently in adequate condition to remain until new planting could be established. Trees in this category would not usually be retained if they would pose a significant constraint to development.

Category U: Trees in such a condition that their existing value would be lost within 10 years and which should, in the current context be removed for arboricultural reasons.

The most significant or valuable trees are placed in the categories, A & B. Site design should make provision to retain trees in these categories and most Local Planning Authorities will insist upon this (or in exceptional circumstances will require that significant compensation planting is incorporated into the design), whilst trees that should not be a constraint to development are recorded with a C category. Trees categorised as U are in a poor condition and should be removed prior to the commencement of work.

- 6.3 Where trees are to be retained, it is necessary to ensure that they are suitably protected to avoid damage during the construction phase of the development. It is also important to consider any long term implications, such as issues with shading or leaf litter that may arise as a result of tree retention.
- 6.4 To ensure that trees are not adversely affected by the construction works it is necessary to:
 - a. The avoidance of physical damage to the aerial parts of the trees (i.e. Impact and other damage to trunk and branches)
 - b. The avoidance of damage to retained trees as a result of the severance or other physical damage to their roots

- c. Preserve of the character of the soil, through the avoidance of any activity that would cause it to become compacted or otherwise disturbed or disrupted, and to avoid contamination by potentially harmful substances
- d. To ensure free gaseous exchange is permitted between the upper layers of soil and the atmosphere
- e. To ensure adequate (but not excessive) water supply to the soil and hence to tree roots

This would normally be achieved by establishing an area, known as a construction exclusion zone (CEZ) around each tree. The CEZ is derived from the root protection area (RPA) and the crown spread of the tree. The RPA represents the area occupied by the tree's root system and is calculated for each tree based on its stem diameter and the ground conditions present taking account of and any impediment to rooting. The RPA should represent the most probable position of the tree's root system.

The CEZ must be considered sacrosanct and be maintained completely undisturbed. No construction should take place within this area and it should not be used for storage of materials or fuels. Access for vehicles machinery or personnel is prohibited and to ensure that it is not damaged by construction activity it must be suitably protected during the construction phase, using robust fencing or alternative ground protection methods, to prevent disturbance and damage occurring.

- 6.5 In addition to the implications that a new development may have for existing trees it is also important to assess any long-term issues or concerns that may arise as a result of retaining trees close to a new dwelling or structure. This can include problems associated with leaf litter and other debris that may fall from trees, the potential that a tree has to cause damage to a structure in the future, any on-going maintenance requirements that may arise and the level of shade that the tree may cast, it is particularly important to consider the effects of shading where trees are to the south of houses and gardens. Trees can also cause feelings of apprehension to the occupiers of nearby buildings and can have an over-bearing impact on a property if adequate space is not provided.
- 6.6 The report assesses all trees with regard to their size, position and natural characteristics, and taking into account of their future growth makes provides recommendations as to their long-term suitability for retention.

Arboricultural Assessment

- 7.1 Full details of the tree surveyed are provided in appendix A. and their relative positions, crown spreads, root protection areas are indicated on the attached plans.
- 7.2 No checks have been undertaken to establish the status of the trees with regards to Tree Preservation Orders or Conservation Areas, however all the trees may be subject to the Forestry Act (see section 3.1) and some hedges subject to the Hedgerow regulations (see section 3.3). No trees or hedges should be felled, lopped, topped or in otherwise removed or damaged without prior permission from the relevant authority.
- 7.3 The survey recorded twenty-nine individual trees and four groups of trees which are categorised as follows:

Category	Quantity
Category A: Trees of high quality and value in such a condition as to be able to make a substantial contribution (a minimum of 40 years)	4
Category B: Trees of moderate quality and value in such a condition to make a significant contribution (a minimum of 20 years)	7
Category C: Trees of low quality and value currently in adequate condition to remain until new planting could be established. Trees in this category would not usually be retained if they would pose a significant constraint to development.	22
Category U: Trees in such a condition that their existing value would be lost within 10 years and which should, in the current context be removed for arboricultural reasons.	0

Arboricultural merits and the significance of the trees in the landscape

- 7.4 The site and surrounding area are residential in character with formal plantings of mature tree on open space along Rhosnesni Lane and Cilcen Grove and more informal planting on open space around the community centre to the west of Chester Road, north of Price's Lane complemented by garden trees and providing a verdant appearance for the area.
- 7.5 There are no veteran trees or areas of ancient woodland on or adjacent to the site.

Policy Considerations

- 7.6 Section 6.4.24 – 6.4.26 of Planning Policy Wales states that:

'Trees, woodlands, copses and hedgerows are of great importance for biodiversity. They are important connecting habitats for resilient ecological networks and make a 123 See Paragraph 6.2.2 of Technical Advice Note 5: Nature Conservation and Planning

<https://gov.wales/technical-advice-note-tan-5-nature-conservation-and-planning> 124 Tree Cover in Wales' towns and cities see

<https://naturalresources.wales/media/4123/tree-cover-in-wales-towns->

and-cities-2014-study.pdf valuable wider contribution to landscape character, sense of place, air quality, recreation and local climate moderation. They also play a vital role in tackling the climate emergency by locking up carbon, and can provide shade and shelter, a sustainable energy source and building materials. The particular role, siting and design requirements of urban trees in providing health and well-being benefits to communities, now and in the future should be promoted as part of plan making and decision taking.

‘Planning authorities should protect trees, hedgerows, groups of trees and areas of woodland where they have ecological value, contribute to the character or amenity of a particular locality, or perform a beneficial and identified green infrastructure function. Planning authorities should consider the importance of native woodland and valued trees, and should have regard, where appropriate, to local authority tree strategies or SPG. Permanent removal of woodland should only be permitted where it would achieve significant and clearly defined public benefits. Where woodland or trees are removed as part of a proposed scheme, developers will be expected to provide compensatory planting.’

‘Ancient woodland and semi-natural woodlands and individual ancient, veteran and heritage trees are irreplaceable natural resources, and have significant landscape, biodiversity and cultural value. Such trees and woodlands should be afforded protection from development which would result in their loss or deterioration unless there are significant and clearly defined public benefits; this protection should prevent potentially damaging operations and their unnecessary loss. In the case of a site recorded on the Ancient Woodland Inventory, authorities should consider the advice of NRW. Planning authorities should also have regard to the Ancient Tree Inventory.’

‘The protection and planting of trees and hedgerows should be delivered, where appropriate, through locally specific strategies and policies, through imposing conditions when granting planning permission, and/or by making Tree Preservation Orders (TPOs). They should also be incorporated into Green Infrastructure Assessments and plans.’

- 7.7 The Wrexham Unitary Development Plan Policy EC4 – Hedgerows, Trees and Woodland advises that

‘Development proposals should provide for the conservation and management of hedgerows, trees, orchards, woodland, wildlife and other natural landscape and water features, and include new planting in order to enhance the character of the landscape and townscape. Development which results in the loss or significant damage to valuable trees, important hedgerows or ancient woodland sites will not be permitted.’

This policy should be considered with reference to Local Planning Guidance Note 17 ‘Trees & Development’ [Local Planning Guidance Note No 17 - Trees and Development \(wrexham.gov.uk\)](#).

Design Considerations

- 7.8 Maintaining the group of trees forming the belt along the western boundary and the trees along the south boundary will help to screen the site from adjacent residential properties and maintain tree cover and important arboricultural features. There is a little more scope for tree removal to allow access from Rhosnesni Lane, as the site is part screened from views in from residential properties to the north by existing mature trees on the opposite side of Rhosnesni Lane.
- 7.9 In addition to ensuring that the trees are not damaged by the construction process, consideration should also be given to the future implications associated with the retention of the trees in the terms of their influence in the context of the new land use. In this case the proposal is for an educational building and impacts such as shading, proximity and leaf litter are not as significant as for dwellings and tree failure risk can be managed through regular inspections.

Arboricultural Impact

Impact	Category A	Category B	Category C	Category U
Tree Removal		1 (T32)	3 (T16, T18, G19)	
Facilitative Pruning Required				
RPA Encroachment				
Potential Shading				
Proximity Issues				

- 7.10 The proposed development would require the removal of three trees, one category B and two category C and one group of trees category C. Although it would be possible to retain one category C tree, T18, if a no dig method was used to construct the adjacent car park, however, given the age and condition of the tree it is considered expedient in the interests of long-term amenity to remove and replace this tree.
- 7.11 It is proposed to use the area on the west of the site, outlined in blue on the site plan, as public open space and to provide a footpath in this area. This will be subject to a separate application, but it will be necessary to ensure that the footpath does not damage tree roots so a no dig construction method will be required.
- 7.12 As an educational building and given the degree of separation between the trees and the building, it is considered unlikely that there will be any long-term issues related to tree retention.
- 7.13 The proposed development provides substantial opportunities for new planting both on the site and on the adjacent area of open space to the west of the site. This will enhance the tree stock in the area and increase the overall urban forest resource in the town.

Arboricultural Operations

Permission to remove any tree must be obtained from the Local Planning Authority and must not be undertaken until a Full Planning Permission has been granted and all pre-commencement conditions have been discharged. In cases where trees are protected by Tree Preservation Orders or Conservation Areas additional consent may be required.

- 8.1 The proposal will require work to trees, subject to obtaining any required permissions it is recommended that the work should be undertaken by a suitably qualified person, holding public liability insurance for the sum of £5,000 000. All operators must hold relevant NPTC certificates. A site-specific risk assessment must be prepared and operators must work to a health and safety method statement. The use of Arboricultural Association Approved Contractors www.trees.org.uk/find-a-professional/Directory-of-Tree-Surgeons is recommended.
- 8.2 The contractor undertaking the work is responsible for any loss or damage arising as a result of the operations and agrees to indemnify the owner against such occurrences.

Preliminary Arboricultural Method Statement

- 9.1 This arboricultural method statement (AMS) sets out the details of tree protection measures afforded to the retained trees on and adjacent to the site.
- 9.2 This document should be read in conjunction with the Tree Protection Plan ref: which is to be prepared following final site layout approval. The TPP indicates the construction exclusion zone (CEZ) that must be maintained around the retained trees. This area must remain undisturbed during the construction process and must be protected using suitable temporary fencing to prevent access. A precautionary area (PA) is also shown. This area can be entered to provide access to the site for the purposes of undertaking construction activities and must be protected by ground protection as specified. No plant, vehicles or heavy equipment are to enter the PA.
- 9.3 Copies of the TPP & the AMS must be available on site and all tree protection requirements explained to all persons undertaking activities on the site during the site induction process.
- 9.4 All tree protection measures must be installed and inspected prior to bringing onto the site any plant, materials or equipment or undertaking any construction works or demolition or any arboricultural works. The LPA must be informed in writing once the tree protection measures are installed.
- 9.5 The site is to be inspected by the consulting arboriculturalist in accordance with the schedule of inspections (see 9.17).
- 9.6 All measurements are given in metric using standard abbreviations.

Fencing and Ground Protection

- 9.7 The TPP indicates the position of all protective fences and ground protection.
- 9.8 Protective fencing will comprise herras fencing securely fixed in place or as agreed with the Local Planning Authority.
- 9.9 Ground protection will consist of a proprietary system such as Ground Guard MaxiTrax protective plates www.ground-guards.co.uk which must extend over the entire area indicated on the TPP and be securely fastened in place. The type of guard used must be suitable for loads up to 10 tonnes or more.
- 9.10 The protective fencing and ground protection must be inspected on installation and will remain in place until completion of the construction phase and then only removed with the consent of the LPA.
- 9.11 Other than works approved in writing by the LPA, no works including storage or dumping of materials shall take place within the exclusion zones defined by the protective fencing.

General Precautions

- 9.12 No materials that are likely to have an adverse effect on tree health such as oil, bitumen or cement will be stored or discharged within 10m of the trunk of a tree that is to be retained or within any part of the CEZ. Spills kits, suitable for the type fluids, fuels and chemicals stored on site must be available on site and site operatives must have training in their use.
- 9.13 No fires will be lit within 20m of the trunk of any tree that is to be retained.
- 9.14 Storage and mixing areas, contactor parking and all site huts must be outside the CEZ.
- 9.15 Access to the work area is via the main site entrance and must not traverse the CEZ.
- 9.16 All service and drainage routes, below or above ground must avoid the CEZ. All services are to be installed in accordance with NJUG volume 4 Guidelines.
- 9.17 To ensure that all tree protection measures are properly installed and maintained the site shall be monitored by Shields Arboricultural Consultancy to the following schedule. Details of the findings and photographic evidence of the site inspection visits will be reported to the LPA by email within 24 hrs of the visit. All tree protection measures must remain in place until development work is completed and only removed after receiving written confirmation from the LPA.

Schedule of Inspection

1. TBA

9.18 Prior to the commencement on site of any work, a competent person is to be appointed to monitor the day to day activities on site. In the case of a tree being damaged or where an unexpected event arises it will be for this person to contact Shields Arboricultural Consultancy to seek advice on contingency measures.

Conclusion

10.1 The proposed development will not have an impact on the arboricultural resource or amenity of the area and is not contrary to national or local planning policy in respect of trees.

S.J.A. Shields

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Chartered Forester

18th June 2021

Arboricultural Assessment

Ref. No.	Species	Top Height	Stem Dia mm	N	E	S	W	CC	Age	Rem Cont	Cat	RPA m ²	Notes	AIA
T1	Fraxinus excelsior (Ash)	15	480	5.6	7.4	5	6.9	1	M	10+	C1	104	Condition: F Sensitivity: M Notes: RPA restricted by road to south. Low Bat Potential.	Tree of average form in prominent location, potential to contract ash die-back may limit long-term potential. T1 can be incorporated into the site layout and protected.
T2	Juglans regia (Walnut)	4	150	2	2	2	2	3	SM	20+	C1	10	Condition: G Sensitivity: L Notes: Low Bat Potential.	Small tree in prominent location. T2 can be incorporated into the site layout and protected.
T3	Fraxinus excelsior (Ash)	6	110	1.5	1.5	1.3	1.5	3	SM	10+	C1	5	Condition: G Sensitivity: M Notes: RPA restricted by road and wall to west and south and by areas of hard standing to the east.	Small tree in prominent location. Potential to contract ash die-back may limit long-term potential. T2 can be incorporated into the site

													Low Bat Potential.	layout and protected.
T4	Betula pendula Youngii (Silver Birch)	15	280	3.5	4	2	0	5	OM	10+	C1	35	Condition: F Sensitivity: H Notes: RPA restricted by adjacent structure. Low Bat Potential.	Forms a group with T5 and is a reasonably attractive feature in the landscape. Outside of main site and will not be affected by the proposed development.
T5	Betula pendula Youngii (Silver Birch)	17	650	4.2	3.8	6.3	8.7	2	M	20+	B2	191	Condition: G Sensitivity: M Notes: As T4	As T4
T6	Platanus X hispanica (London Plane)	18	900	9	8.7	7	8	4	M	40+	A2	366	Condition: G Sensitivity: L Notes: RPA restricted by road to south. Low Bat Potential.	Attractive tree in a prominent location, providing high public amenity value. Will be incorporated into the site layout and protected to the required standard.
T7	Alnus cordata (Italian Alder)	8	80	1.5	1.5	1.5	1.5	1.5	EM	20+	C1	3	Condition: G Sensitivity: VL	Small tree in prominent location. T7 can be incorporated

													Notes: Low Bat Potential.	into the site layout and protected to the required standard.
T8	Aesculus hippocastanum (Horse Chestnut)	16	710	6.8	7.6	8.3	7.8	3	M	10+	B2	228	Condition: F Sensitivity: M Notes: Bleeding canker on stem. Low Bat Potential.	Reasonably attractive and prominent tree. Will be incorporated into the site layout and protected to the required standard.
G9	Aesculus hippocastanum (Horse Chestnut), Populus nigra 'Italica' (Lombardy Poplar, Tilia X europaea (Common Lime)	22	1,000	3	9	3	6	2	M	20+	A2	452	Condition: G Sensitivity: M Notes: Mixed group of mature trees. RPA restricted by adjacent footpath to west. Low Bat Potential.	Very significant and prominent group of trees on the west boundary of the site providing very high public amenity value. Group is a substantial distance from the development area and will be retained and protected to the required standard.
T10	Juglans regia (Walnut)	3	125	2.5	2.5	2.5	2.5	2	SM	20+	C1	7	Condition: G Sensitivity: L	Small tree in prominent location. T10 can

													Notes: Low Bat Potential.	be incorporated into the site layout and protected to the required standard.
T11	Platanus X hispanica (London Plane)	6	140	3	3	2	3	2	SM	20+	C2	9	Condition: G Sensitivity: L Notes: Low Bat Potential.	Small tree in prominent location. T11 can be incorporated into the site layout and protected to the required standard.
T12	Platanus X hispanica (London Plane)	6	160	3	3	3.5	3	4	SM	20+	C1	12	Condition: G Sensitivity: L Notes: Low Bat Potential.	Small tree in prominent location. T12 can be incorporated into the site layout and protected to the required standard.
T13	Prunus avium (Wild Cherry)	7	180	3	1.5	2	3	3	EM	20+	C1	15	Condition: G Sensitivity: M Notes: Suppressed by T14 Low Bat Potential.	Minor specimen in terms of public amenity, can be incorporated into the site layout and protected to the required standard.

T14	Quercus robur (Common Oak)	12	350	3	2	6.9	3.9	6	M	20+	B2	55	Condition: G Sensitivity: M Notes: RPA restricted by road to north Low Bat Potential.	Reasonably attractive tree in prominent location. T14 can be incorporated into the site layout and protected to the required standard.
T15	Quercus robur (Common Oak)	16	510	4	6.1	7	4.8	2	M	20+	B2	118	Condition: G Sensitivity: M Notes: RPA restricted by boundary wall to south. Low Bat Potential.	Reasonably attractive tree in prominent location. T14 can be incorporated into the site layout and protected to the required standard.
T16	Prunus avium (Wild Cherry)	16	480, 485	5	6.1	6.4	6	3	M	10+	C1	210	Condition: G Sensitivity: M Notes: RPA restricted by road to north. Low Bat Potential.	Average tree in reasonable prominent location. Will be removed to facilitate the proposed development and any loss of amenity mitigated through new planting.

T17	Fagus sylvatica 'Purpurea' (Copper Beech)	2	100	2	2	2	2	0	Y	20+	C1	5	Condition: G Sensitivity: L Notes: Low Bat Potential.	Very young tree in reasonably prominent location. Tree can be retained and protected, although it may be better to relocate this tree elsewhere on the site.
T18	Acer pseudoplatanus (Sycamore)	18	820	5	7.1	7.7	8.3	4	M	20+	C2	304	Condition: F Sensitivity: M Notes: RPA restricted by road to north. Damaged secondary stem with possible decay. Moderate Bat Potential.	Average tree in reasonable prominent location, downgraded due to condition. Can be retained and protected if adjacent car park is constructed using no dig method, however it may be more expedient in the interests of long-term amenity to remove and replace this tree.
G19	Acer platanooides (Norway Maple), Prunus avium (Wild Cherry),	15	150	3	2	4	2	2	M	20+	C2	10	Condition: F Sensitivity: L Notes: Mixed group of trees	Minor specimens in terms of public amenity. Will be removed to facilitate the

	Robinia pseudoacacia (Locust Tree)												and shrubs, extensive sucker growth from cherry. Low Bat Potential.	proposed development and any loss of amenity mitigated through new planting.
T20	Taxus baccata (Yew)	15	400, 420	6	5	4	5.4	0	M	40+	A2	152	Condition: G Sensitivity: M Notes: RPA restricted by structures and road. Low Bat Potential.	Significant tree, off-site adjacent to east boundary. Will not be affected by the development and can be retained and protected.
T21	Prunus cerasifera (Cherry Plum)	10	300, 220, 150, 150	6	5	4	4.7	2	M	10+	C2	83	Condition: G Sensitivity: M Notes: Low Bat Potential.	Average tree, off-site adjacent to east boundary. Will not be affected by the development and can be retained and protected.
T22	Tilia X europaea (Common Lime)	21	950	7	5	7	6.5	10	M	40+	A2	408	Condition: G Sensitivity: M Notes: Low Bat Potential.	Significant tree, off-site adjacent to east boundary. Will not be affected by the development and can be retained and protected.

T23	Fagus sylvatica 'Purpurea' (Copper Beech)	9	250	5	5	6	5.2	0	EM	20+	C2	28	Condition: G Sensitivity: M Notes: Low Bat Potential.	Minor tree, off-site adjacent to east boundary. Will not be affected by the development and can be retained and protected.
G24	Fraxinus excelsior (Ash), Acer pseudoplatanus (Sycamore)	17	500	1	7	1	6.1	3	M	20+	B2	113	Condition: G Sensitivity: M Notes: Low Bat Potential.	Significant group of trees, off-site adjacent to east boundary. Will not be affected by the development and can be retained and protected.
T25	Laburnum anagyroides (Laburnum)	2	200	2	2	2	2	0	M	10+	C1	18	Condition: G Sensitivity: M Notes: Low Bat Potential.	Minor tree on south boundary, provides some level of screening from adjacent properties. Will be incorporated into the site layout and protected to the required standard.
T26	Tilia X europaea (Common Lime)	3	120	2	2	2	2	2	SM	20+	C1	7	Condition: G Sensitivity: L Notes:	Young tree in prominent location on south boundary, provides some

													Low Bat Potential.	level of screening from adjacent properties. Will be incorporated into the site layout and protected to the required standard.
G27	Sambucus nigra (Elder), Salix alba (White Willow)	3	150	2	2	2	2	0	M	20+	C1	10	Condition: G Sensitivity: M Notes: Mixed group, willow regenerating from old stump. Low Bat Potential.	Minor Group in prominent location on south boundary, provides some level of screening from adjacent properties. Will be incorporated into the site layout and protected to the required standard.
T28	Fraxinus excelsior (Ash)	5	150	3	3	3	3	3	SM	20+	C1	10	Condition: G Sensitivity: M Notes: Potential to contract ash die-back may limit life expectancy.	Young tree in prominent location on south boundary, provides some level of screening from adjacent properties. Will be incorporated into the site layout and

													Low Bat Potential.	protected to the required standard.
T29	Sorbus aucuparia (Rowan)	6	150	3	3	3	3	3	SM	20+	C1	71	Condition: G Sensitivity: M Notes: Low Bat Potential.	Young tree in prominent location on south boundary, provides some level of screening from adjacent properties. Will be incorporated into the site layout and protected to the required standard.
T30	Sorbus aria (Whitebeam)	13	520	5.8	8.1	5	3.9	3	M	20+	B2	122	Condition: G Sensitivity: M Notes: RPA restricted by road south. Low Bat Potential.	Reasonably significant tree in prominent location on south boundary, provides some level of screening from adjacent properties. Will be incorporated into the site layout and protected to the required standard.
T31	Tilia X europaea (Common Lime)	3	110	2	2	2	2	2	SM	20+	C1	5	Condition: G	Young tree in prominent

													Sensitivity: M Notes: RPA restricted by boundary wall to south. Low Bat Potential.	location on south boundary, provides some level of screening from adjacent properties. Will be incorporated into the site layout and protected to the required standard.
T32	Quercus robur (Common Oak)	16	520	5	6.3	7	6.6	1	M	20+	B2	122	Condition: G Sensitivity: M Notes: RPA restricted by road to north Low Bat Potential.	Reasonably significant tree. Will be removed to facilitate the proposed development and any loss of amenity mitigated through new planting.
T33	Fagus sylvatica (Beech)	2	50	1	1	1	1	0	Y	20+	C1	1	Condition: G Sensitivity: M Notes: Low Bat Potential.	Young tree in prominent Will be incorporated into the site layout and protected.

Ultimate Heights of Main Species

Lime 20

Horse Chestnut 18

Oak 18

Lombardy Poplar 30

London Plane 25

Notes

BS 5837: 2012 provides the framework through which tree can be categorised in terms of their health, amenity value and long-term viability for retention on a development site. There are four categories, A,B,C & U.

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

- 1 Trees that are particularly good examples of their species, or essential components of groups or formal arboricultural features.
- 2 Trees, groups or woodlands that provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance.
- 3 Trees, groups or woodlands of significant conservation, historical, commemorative or other value.

Category B: Trees of moderate quality with an estimated lifespan of at least 20 years

- 1 Trees that might be included in a higher category but are downgraded because of impaired condition.
- 2 Trees present in numbers, usually as groups of woodlands that form distinctive landscape features.
- 3 Trees with clearly identifiable conservation or other cultural benefits.

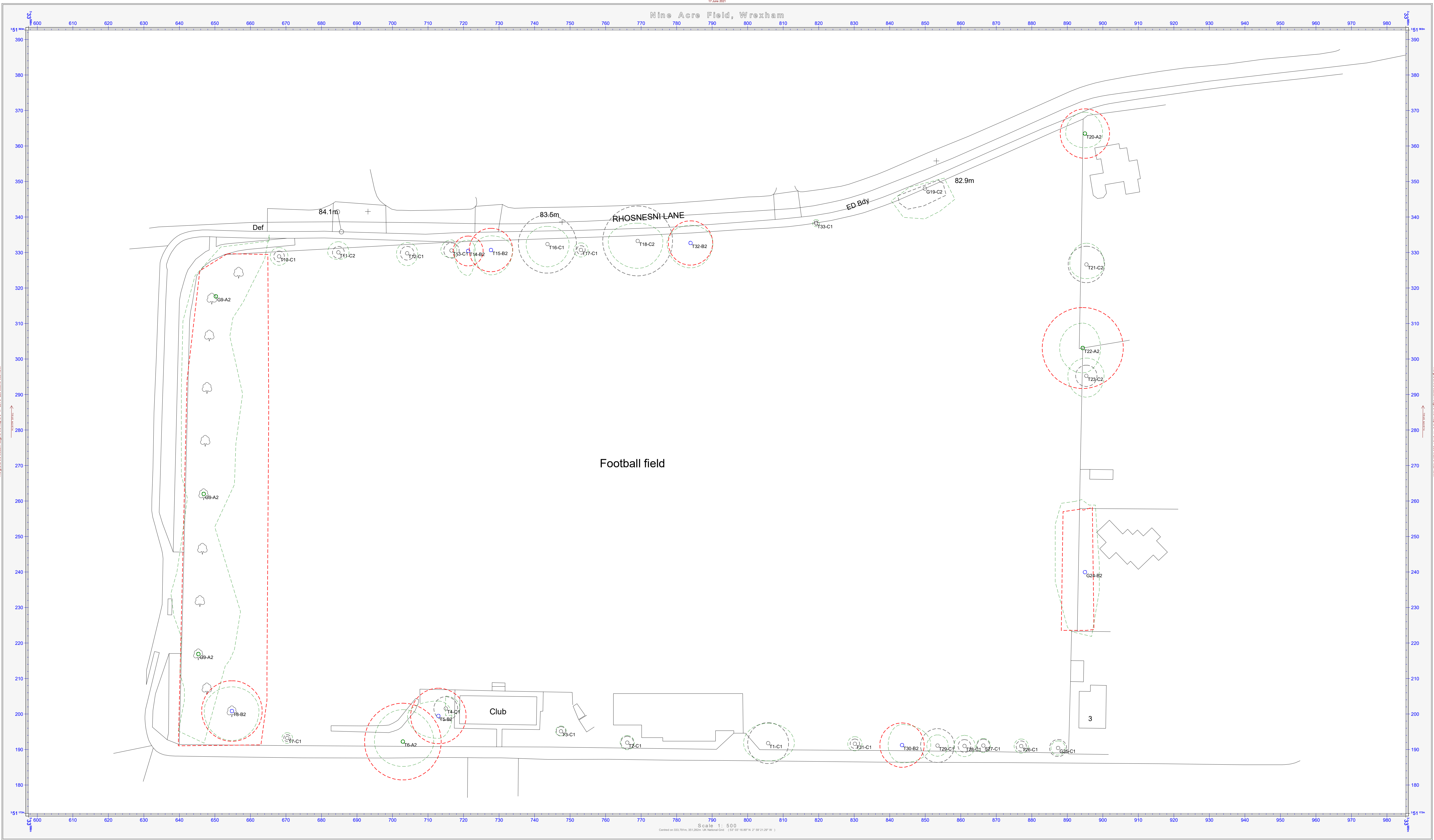
Category C: Trees of low quality with an estimated lifespan of at least 10 years or young trees with a stem diameter below 150mm.

Category U: Trees in such a condition that they cannot realistically be retained as living in the context of the current land use for longer than 10 years. *NB. Category U trees can have an existing of potential conservation value which it might be desirable to preserve.*

Bat potential has been assessed in accordance with the guidance provided in BS 8596:2015 and is at the level of a non-specialist scoping survey. This assessment is for preliminary advice and does not negate the requirement for a specialist ecological survey

Key

Tag No	Identification number for tree	Species	Species of tree
Top Height	Estimated height of tree	Stem Dia.	Diameter of stem at 1.5 metres
Stems	Number of stems	N, E, S, W	Crown spread at compass points
CC	Crown Clearance	FSB	Direction of first significant branch
Rem. Cont	Remaining safe life expectancy in years	RPA	Root protection area in m ²
Cat.	BS Category (see above)	AIA	Arboricultural Implication Assessment
Age	Y - Young Trees SM Semi Mature EM Early Mature M Mature LM Late Mature exceeds normal life expectancy for species VET Veteran Tree		
Condition	Good Relatively free from defects and / or major pests and diseases Fair Some defects, which could be addressed through tree surgery or minor pests or early symptoms of diseases Poor Substantial defects or terminal decline Dead Dead		
Sensitivity:	Ability of tree to tolerate disturbance assessed from species, age, condition and site suitability. Very Low – Very High were VL = very low sensitivity and most able to tolerate and recover from disturbance.		



Shields Arboricultural Consultancy

Tree & Woodland Management Solutions

Tree Constraints Plan

Nine Acre Field
Wrexham

KEY

- Cat A Tree
- Cat B Tree
- Cat C Tree
- Canopy
- RPA
- RPA Cat C

Drawing No: NAR/TCP/06/21/01

Drawn By: S. Shields

Scale: 1:500 @ A1

Date: 17th June 2021

Revision:

Do not scale from this drawing all dimensions to be checked on site
Drawing is colour coded and a monochrome copy should not be relied upon

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Tree & Woodland Management Solutions

Tree Constraints Plan
Overlay
Nine Acre Field
Wrexham

KEY

- Cat A Tree
- Cat B Tree
- Cat C Tree
- Canopy
- RPA
- RPA Cat C

Drawing No: NAR/TCP/OL/06/21/01

Drawn By: S. Shields

Scale: 1:500 @ A1

Date: 18th June 2021

Revision:

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Drawing is colour coded and a monochrome copy should not be relied upon

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