



WE KNOW SERVICES

Preliminary Bat Roost Appraisal Report

Address

Windy Arbor Playing Fields Car Park, Windy
Arbor Road, Whiston

Client

Knowsley Metropolitan Borough Council

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Version

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Preliminary Bat Roost Appraisal Report – Windy Arbor Car Park



A view of the trees currently residing at the north-eastern side of the car park.

Quality Assurance

The information which the author has prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

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Summary

A Preliminary Roost Assessment (PRA) for bats was commissioned in September 2021 for the proposed removal of a small number of trees associated with construction of a Car Park at playing fields on Windy Arbour Road, Whiston, Liverpool.

Following the scoping survey there was no evidence identified to suggest the presence of bat roosts in association with the trees proposed for removal. The wider site is of some interest to bats for foraging and commuting but habitats in the wider context are likely to support a variety of bat species, with roosts associated with buildings and trees in the wider area.

In view of the results of the assessment for bats, there is not anticipated to be any impact upon bats and their roosts because of the removal of the trees. As such, no further survey, mitigation or compensation or licencing is required with respect to bats.

It should be noted however, that as trees are being removed, these should be replaced on a two for one basis elsewhere within the site as part of the development using locally native species such as Ash (*Fraxinus sp.*) or Oak (*Quercus robur*).

Also, any proposed lighting scheme should ensure that it is sensitive to the presence of wildlife, including bats foraging and commuting through the site. This would include low-level lighting or similar solutions to prevent artificial light levels from deterring bats from the site (please see ¹*Bats and artificial lighting guidance note (2018)* for further information).

In view of the above, it is considered the appropriate level of assessment has been completed (as per Collin, J (Ed) 2016), and the conservation status of the bats will not be adversely affected by the proposed development.

1 Introduction

A Preliminary Roost Assessment (PRA) for bats was commissioned in September 2021 for the proposed removal of a small number of trees associated with construction of a Car Park at playing fields on Windy Arbor Road, Whiston, Liverpool.

1.1 Site Description

The site is located in Whiston, Liverpool (Grid Reference: SJ468905) and consists of an area of bare ground with adjacent scrub and trees to the site boundaries. The site is in an urban area on the outskirts of Liverpool.

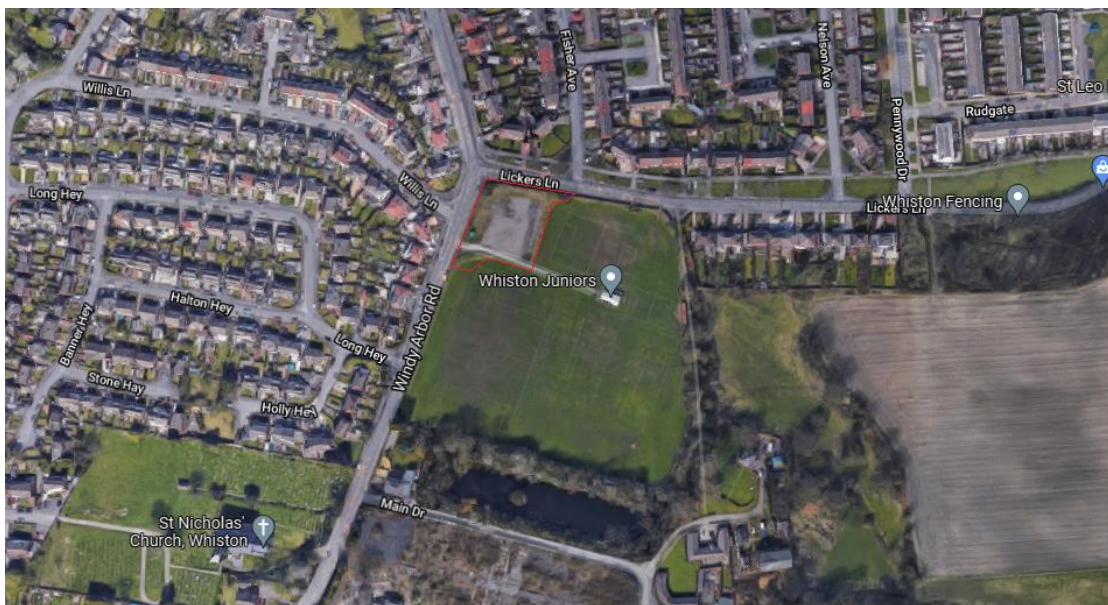


Figure 1. Site (redline) and surrounding landscape character

1.2 Proposed Works

It is understood that the proposals are for the construction of a car parking area to serve the adjacent playing fields. This will require the removal of a small number of trees which will be affected the works,

1.3 Personnel & Quality Assurance

Rob Nicholson BSc (Hons) MCIEEM is a Class 2 Bat licence holder (Natural England), has over 10 years' relevant experience as an ecologist and is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Rob has been 'named ecologist' on numerous European Protected Species Licences (EPSL) for bats for a range of species and roost types in both England and Wales.

All field work and assessment were undertaken in accordance with current best practice guidelines (Collins, J. (Ed) 2016).

2 Legal Status

Bats

In England, all British bats and their roosts are protected under the Conservation of Habitats and Species Regulations 2017 and the Wildlife & Countryside Act 1981 (as amended).

These pieces of legislation combine to give substantial protection to bats and their roost sites, making it an offence to:

- Deliberately or intentionally kill, injure, or take a bat.
- Damage, destroy or intentionally or recklessly obstruct access to any place that a bat uses for shelter or protection (this is taken to mean all bat roosts whether bats are present or not);
- Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection.

3 Methodology

The bat scoping survey and desk-based assessment were undertaken on the Seventh of September 2021.

3.1 Desk Study

To inform the survey, a desk study was conducted using available ecological information relating to bats for the area surrounding the site.

Online resources, including Multi-Agency Geographic Information Centre (MAGIC), were consulted in relation to the presence of sites and habitats of importance for bats in the wider context.

A data request to Local Records Centre or the local Bat groups was not made due to the small scale of the development.

3.2 Pre-development Bat Survey

3.2.1 Habitat Survey

A broad habitat survey was conducted of the site to inform the assessment of the suitability of the site for bats. Broad habitat descriptions were assigned and their values with respect to bats at site level and in the wider context assessed.

3.2.2 Bat Scoping Survey

The bat scoping survey comprises of a ground level tree inspection which was limited to the trees proposed for removal as part of the planning application. Trees are inspected using close-focusing binoculars (e.g., Pentax Papilio 8.5 x 21) to determine possible access points such as cavities in stem and limbs. Using ladders, all accessible features are closely inspected using *Lenster H14* and/or X21 cool light torches. Where possible, any holes, splits in branches and other potential roost features are checked for signs of use by bats such as droppings, scratch marks and staining. An endoscope is used to inspect cavities that could be accessed safely via ladders.

3.3 Evaluation Methods

The 'Bat Surveys for Professional Ecologists: Good Practice Guidelines' (3rd edition) (Collins, J. (Ed) 2016) are used as a basis to evaluate the value of features for their potential to support bats.

The potential impacts on bats, bat habitat or their roosts because of the proposals are assessed within this report using the above criteria, together with an ecological judgement by an experienced bat surveyor.

4 Constraints

External field signs of bats can be lost over time due to weathering and damp conditions. Droppings and other field signs are not always visible through routine, non-invasive inspection surveys as bat species associated with trees roost in crevices that may not be fully accessible to survey.

This survey does not cover every month of the active and hibernation seasons.

5 Results

5.1 Desk Study

Online Resources

According to the Natural England online mapping resource MAGIC there are no statutory designated sites for which bats are a qualifying feature within 2 km of the site.

There is one granted European Protected Species Licences relating to bats within 2 km of the site according to MAGIC as follows:

- Case reference of granted application: EPSM2013-5867
- Species on the licence: C-PIP; S-PIP; BLE; NATT
- Licence Start Date: 03/12/2013
- Licence End Date: 30/09/2014
- Does licence impact on a breeding site: NO

5.2 Field Survey

5.2.1 Broad Habitat Survey

The site is situated in Whiston, which is in the borough of Knowsley, an area which is comprised of primarily residential properties, with commercial and industrial areas, but also sits adjacent to areas of open agricultural land.

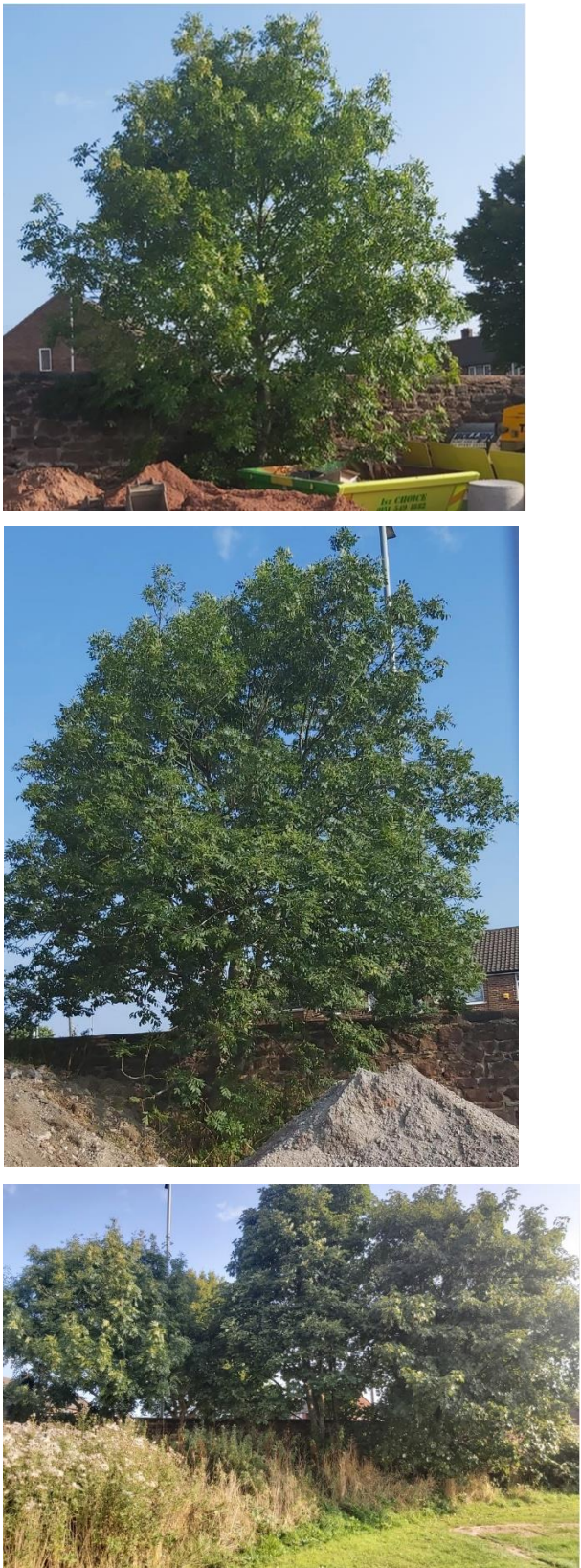
Foraging habitat in the immediate vicinity of the site is good with the site located in an urban area but near areas of woodland, scrub, open grassland, and agricultural land. There are also several large fishing ponds close to the site.

5.2.2 Roost Survey

The objective of the roost survey was to identify and assess for the presence of bat roosts which may be anticipated to be affected by the proposed removal of the trees.

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Table 1 Tree Inspection Results

Photos	Description
	There are two individual trees (Ash; <i>Fraxinus excelsior</i>) and one group of trees (Ash and Sycamore; <i>Acer pseudoplatanus</i>) located close to a stone wall forming the northern boundary to the site that are proposed for removal (all other trees are to be retained). The trees are relatively young and do not possess any storm damage, rot holes or other damage sufficient to create features capable of providing shelter for bats. Any damage present is superficial with respect to the above. Potential Roost Features: Each of the trees lack any Potential Roost Features (PRFs) for bats Evidence: None Bat Roost Assessment: <u>Negligible potential</u> for supporting bat roosts.

The trees proposed for demolition were assessed as being of 'Negligible Potential' for supporting bat roosts (Collin, J. (Ed), 2016) due to an absence of any evidence of bats and absence of potential roost features (PRFs).

5.3 Roosts and Habitat

Following the scoping survey there was no evidence identified to suggest the presence of bat roosts in association with the trees proposed for removal. The wider site is of some interest to bats for foraging and commuting but habitats in the wider context are likely to support a variety of bat species, with roosts associated with buildings and trees in the wider area.

5.4 The Value of the Site for Bats

In view of the results of the bat survey the trees are not considered to currently support bat roosts due to absence of PRFs and as such the site is of 'negligible value' for roosting bats in the local context (Mitchell-Jones, 2004).

6 Impacts

The proposed development includes of the removal of the surveyed trees and construction of a hardstanding area for use as a car park.

Bats

In view of the absence of any evidence of a roost associated with the trees and the assessment of "negligible potential" to support bat roosts, the scale of impact upon the conservation status of the species in relation to this building because of the proposed development is considered likely to be 'negligible' (Mitchell-Jones, 2004).

7 Advice and Recommendations

7.1 Mitigation, Compensation and European Protected Species Licencing

Bats

In view of the results of the assessment for bats, there is not anticipated to be any impact upon bats and their roosts as a result of the removal of the trees. As such, no further survey, mitigation or compensation or licencing is required with respect to bats.

It should be noted however, that as trees are being removed, these should be replaced on a two for one basis elsewhere within the site as part of the development using locally native species such as Ash (*Fraxinus sp.*) or Oak (*Quercus robur*).

Also, any proposed lighting scheme should ensure that it is sensitive to the presence of wildlife, including bats foraging and commuting through the site. This would include low-level lighting or similar solutions to prevent artificial light levels from deterring bats from the site (please see ¹*Bats and artificial lighting guidance note (2018)* for further information).

7.2 Further Survey

Following the results of assessment, no further survey in relation to bats is recommended.

8 Conclusions

In view of the above, it is considered the appropriate level of assessment has been completed (as per Collin, J (Ed) 2016), and the conservation status of the bats will not be adversely affected by the proposed development.

9 References

Bat Conservation Trust (2000). *Distribution atlas of bats in Britain and Ireland 1980-1999*. Bat Conservation Trust, London.

Bat Conservation Trust website: <http://www.bats.org.uk/>

Collins, J (Ed). (2016). *Bat Surveys for Professional Ecologists - Good Practice Guidelines*, 3rd edition. Bat Conservation Trust.

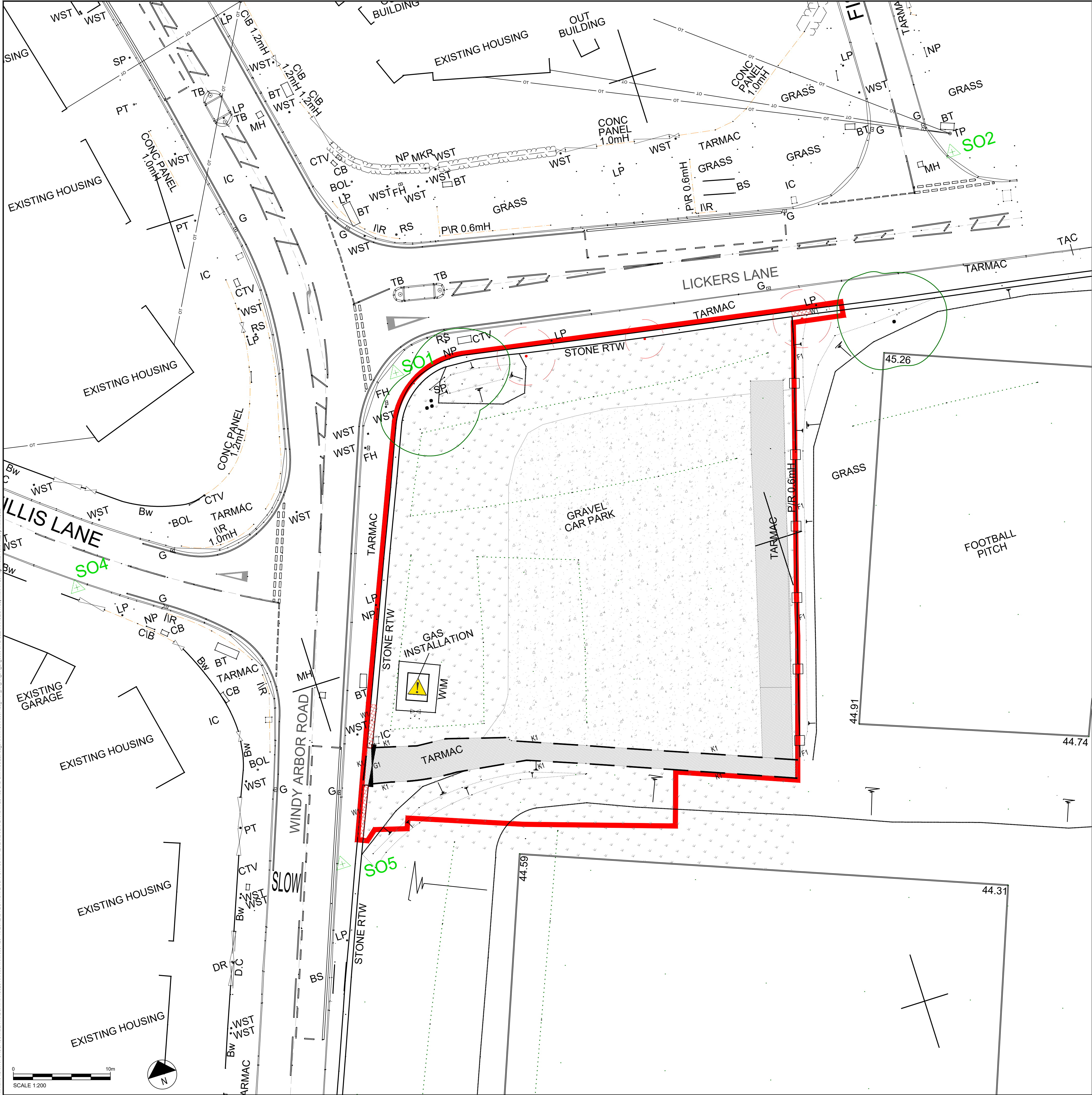
ILP (2018) Bats and artificial lighting guidance note.

Mitchell-Jones, A.J. (2004). *Bat Mitigation Guidelines*. English Nature

Multi-Agency Geographic Information Centre: <http://magic.defra.gov.uk/>

Appendix I.0

Existing Site Layout



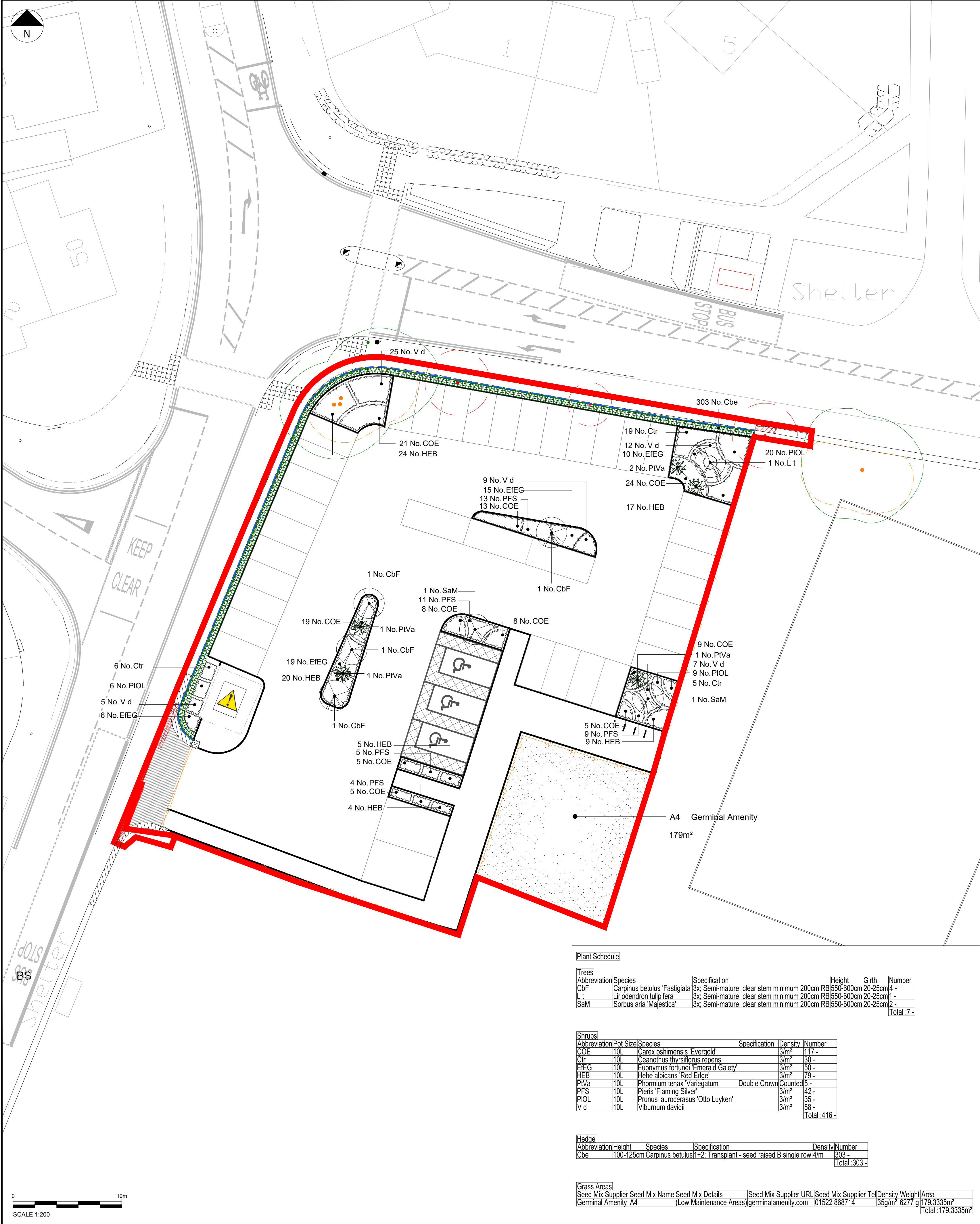
- KEY**
- Red line boundary
 - Existing trees to be retained
 - Trees & roots to be removed. - Refer to drawings and report by 'We Know Services' for further information. Area to be reinstated with soil and seed.
 - Existing vegetation to be cleared. Removal includes scrub, roots, boulders, stones and arising's greater than 50mm. All arising's to be disposed off site.
 - Retaining wall section to be removed
 - Vehicular gate to be removed
 - Existing kerb & associated foundations. Excavate & remove arising's off site.
 - Existing timber knee rail fencing & associated foundations. Excavate & remove arising's off site.
 - Take up existing tarmac section to red line boundary, and remove sub-base. Dispose of all arising off site (Provisional Item); allow for full reinstatement
 - Take up existing gravel car park surfacing and remove sub base ; allow for full reinstatement.
 - WARNING: Residual risk. Gas governor and inlet pipes.

DO NOT SCALE

REV	DATE	BY	DESCRIPTION	CHK	APP
DRAWING STATUS: D2 - FOR TENDER					
 No 8 First Street, Manchester, M15 4RP, UK T+ 44 (0) 161 200 5000 wsp.com					
CLIENT: KMBC					
ARCHITECT:					
SITE/PROJECT: WINDY ARBOR ROAD					
TITLE: SITE CLEARANCE					
SCALE @ A1: 1:200		CHECKED: LW	APPROVED: MP		
PROJECT NO: 70057126		DESIGNED: CW	DRAWN: CW	DATE: 24/08/2021	
DRAWING No: 70057126_WSP_XX_XX_DR_LA_0008					REV: C01
© WSP UK Ltd					

Appendix 2.0

Proposed Site Plan



PLANTING NOTES

General

- Contractor to confirm positions of all buried utilities prior to commencement of landscape works. Proposals positioning in relation to underground services are subject to further on-site ground and utilities investigation.
- Existing trees to be retained should be protected during construction as per BS 5837 and arboricultural advice. Final determination of trees to be removed to be confirmed on site as per arboriculturist advice.
- Plant material to conform to the National Plant Specification. Plant handling and planting operations to be in accordance with HTA 'Handling and Establishing Landscape Plants', Parts I-III.

Trees & Shrubs

- Planting the trees should be carried out in accordance with British Standard BS:8545 2014.
- Planting season: Late October to late March.
- Square-shaped tree pits to encourage root growth, the planting pit should be no deeper than the existing rootball or container depth.
- During excavation of the tree pit, the soil dug should be placed to one side separating topsoil and subsoil as far as is practical. Excavated topsoil to be free of perennial weeds, weed seeds and contamination and stone picked to remove any stones larger than 50mm prior to re-use. Excavated topsoil to be ameliorated and/or screened if necessary, to achieve this specification.
- Backfill should be added gradually, in layers of 150 mm to 230 mm depth. The layers should match the surrounding subsoil and topsoil as closely as possible. At each stage the fill should be firmed in to eliminate all air pockets under and around the root system, but with care being taken not to excessively compact the soil. The final layer of backfilling should not be consolidated but should be of a sufficient depth to allow for settlement and mulching. Approximately 200g of organic slow release fertilizer per tree shall be worked into the backfill mixture.
- All planting to be protected with guards with the exception of semi-mature sized trees.
- Semi-mature trees to be supported by 2no. tree stakes, 1no. crossbar, 1no. adjustable tree tie secured to crossbar and 1no. rubber block / similar spacer. Stakes in line with prevailing winds, or when planted on embankment, stakes to be parallel and to the top of the slope.
- The root flare of the newly planted tree should be clearly visible at the soil surface. It should not be buried by excess soil or mulch.
- Tree pit sides should not have compacted, glazed or smeared sides from digging. Sides of a planting pit that have been smeared or smoothed during excavation should be scarified.
- Ensure pit free of rubble or concrete before backfilling with soil, compost and fertilizer mix.
- The rootball or root-stem transition should be level with the existing host soil.
- Imported topsoil to BS 3882: 2015 general purpose grade and from an approved source. Soil pH 7.0. Topsoil to be free from excessive amount of weed seeds, roots of perennial weeds, subsoil and extraneous matter. Do not handle during or after heavy rainfall or when it is wetter than the plastic limit as defined by BS 3882.
- Mulch trees with matured coniferous bark, with an even particle size between 5-35mm, to 75mm minimum depth over weed-free soil after completion of planting and watering operations. Individual biodegradable mulch mats can be used as an alternative to bark mulch, especially in areas of high pedestrian traffic.

Hedgerow

- Hedge species to be planted in trenches large enough to take full spread of roots and backfilled with excavated or imported topsoil/compost.
- Planted in a single row 250mm apart. Protect plants with guards, fix with cable ties and support by timber stake, ensuring protection methods do not restrict natural movement or growth.
- Bark mulch, 75mm depth, to be applied around base of plants.

Maintenance

General

- Keep area litter free

Trees in soft landscape

- Water as necessary to ensure good establishment.
- Undertake basic formative pruning only or to ensure good health of the tree i.e. if signs of disease or damage from vandalism
- Keep area around base of tree weed free and top up mulch annually
- Ensure no mechanical grass cutting machinery is used within a 1m radius around the base of each tree
- Check stakes, tree ties and underground guys and tighten if necessary
- Replace dead or dying trees each winter with a like-for like replacement (as trees mature the replacements will need to be of a size consistent with the surrounding trees)
- Remove stakes and ties when they are no longer required.

Amenity Grass

- Area to be treated with herbicide prior to establishing grass
- Mow regularly to maintain a height of 38mm or less. If grass growth is more than 50mm remove all arising's.
- Apply fertiliser annually

KEY: SOFTWARES

- Red line boundary
- Existing tree
To be retained and protected during works.
- Trees to be removed.
Refer to drawings and report by 'We Know Services' Ref Windy Arbor for further information.
- Root Protection Zones
- Proposed trees
Refer to clause Q31.
- Proposed specimens
Refer to clause Q31.401.
- Proposed hedge planting
Refer to clause Q31.470.
- Proposed areas of shrub planting
Refer to clause Q31.401.
- Proposed grassed area
Refer to clause Q30.311.
- Proposed root barrier
Refer to clause Q31.510.

Note:
Existing Trees
Refer to drawings and report by We Know Services for further information.
Root Barriers
Are to be included to protect utilities in close proximity to trees, also to protect the existing perimeter wall to Windy Arbor Rd and Lickers Lane.
Planting
Topsoil spread evenly in layers not exceeding 150mm depth to 300mm depth after lightly firming and settlement, with 150mm depth of sub-soil. Refer to plant schedule. Planting beds to receive 75mm depth mulch.
Grass
A minimum of 200mm depth of cultivated topsoil should be spread before turfing or seeding take place. Top soil should ensure a level of fertility appropriate for a healthy grass sward development. Infill hollows and level the grassed area. Cultivate and over seed.
Mulch
At completion carefully spread a general purpose mulch - prepared in accordance with PAS 100 - to an even depth of 75mm to planting beds (sample supplier Green Tech Tel: 01423 332100) (or similar approved)
Hedges
All hedge trenches - 450mm min. depth x 600mm max. width. 75mm depth mulch. Before application of topsoil, mechanically loosen areas of hedge and thicket planting to a depth of 300mm.
Maintain at a height of 1.25m -1.5m
Membrane
All loose material to be laid over a weed control membrane (sample supplier Green Tech Tel: 01423 332100) Groundcover Weed Control Fabric 100gsm, black woven polypropylene, 100g/m2, with appropriate fixings.
Services
General: The nature and condition of the site cannot be fully and certainly ascertained before it is opened up.
All planting areas to be checked for services, a minimum of 1m offset to be marked of all services found.
Exact locations of trees and tree pits to be confirmed on site by CA locations may change due to the locations of underground services, lighting columns and ducting. Areas should be scanned for underground utilities prior to any works beginning on site.

75x50mm untreated timber crossbar nailed to stakes with 2no. 100mm round headed nails per stake. Approved tree tie secured to crossbar with 2no. 40mm round headed nails - For further information refer Q31.550

Tree to be secured to crossbar using Abortie tree tie by Greenleaf or similar.

A Holdfast rubber block or similar spacer to be used to prevent abrasion to the tree.

2no. 100 Ø x 2000mm tree stakes, peeled but untreated straight lengths of larch or sweet chestnut pointed one end. To be driven into undisturbed ground min 600mm.

300mm depth Planting medium in accordance with BS 3882 2015: 4 parts topsoil to 1 part peat free compost (Melcourt topgrow or similar). Mycorrhiza application. Green-Tree or similar.

When backfilling ensure planting medium/ topsoil below root level is well firmed in 150mm layers Topsoil to be approved by Landscape Architect

75mm bark mulch - Refer to Q28.845.

Ground Level

Wavin coil watering system - Refer to Q31.512.

Tree root barrier to be provided if located within close proximity to services - Refer to Q31.510A

Scarify sides of pit

300mm depth Green-tree Sub Soil Layer to BS8601:2013 or similar

Forked over layer - min depth 150mm

Existing site material

Ground to be broken to a depth of 150mm - Refer to Q31.505

Plant Schedule

Tree	Abbreviation	Species	Specification	Height	Girth	Number
CbF	Carpinus	betulus 'Fastigiata'	3x; Semi-mature; clear stem minimum 200cm	RB550-600cm	20-25cm	4
L t	Liriodendron	tulipifera	3x; Semi-mature; clear stem minimum 200cm	RB550-600cm	20-25cm	1
Sam	Sorbus	aria 'Majestica'	3x; Semi-mature; clear stem minimum 200cm	RB550-600cm	20-25cm	2
Total : 7						

Shrubs	Abbreviation	Pot Size	Species	Specification	Density	Number
COE	10L	Carex	oachimensis 'Evergold'		3/m²	117
Ctr	10L	Ceanothus	thyrsiflorus repens		3/m²	30
EIEG	10L	Euonymus	fortunei 'Emerald Gaiety'		3/m²	50
HEB	10L	Hebe	albicans 'Red Edge'		3/m²	79
PtVa	10L	Phormium	tenax 'Variegatum'	Double Crown	Counted	5
PFS	10L	Pieris	'Flaming Silver'		3/m²	42
PIOL	10L	Prunus	laurocerasus 'Otto Luyken'		3/m²	35
V d	10L	Viburnum	davidii		3/m²	88
Total : 416						

Hedge	Abbreviation	Height	Species	Specification	Density	Number
Cbe	100-125cm	Carpinus	betulus1+2	Transplant - seed raised B single row	4/m	303
Total : 303						

Grass Areas	Seed Mix Supplier	Seed Mix Name	Seed Mix Details	Seed Mix Supplier URL	Seed Mix Supplier Tel	Density/Weight	Area
Germinal Amenity	J44	(Low Maintenance Areas)	germinalamenity.com	01522 868714		35g/m² 6277 g	179.3335m²
Total : 179.3335m²							

Extra Heavy Standard Tree Pit Detail (Double Staked)

Typical Cross Section 1:20 works.

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REV	DATE	BY	DESCRIPTION	CHK	APP
DRAWING STATUS: D2 - FOR TENDER					
No 8 First Street, Manchester, M15 4RP, UK T+ 44 (0) 161 200 5000 wsp.com					
CLIENT: KMBC					
ARCHITECT:					
SITE/PROJECT: WINDY ARBOR ROAD					
TITLE: PLANTING PLAN					
SCALE @ A1: 1:200		CHECKED: LW	APPROVED: XX		
PROJECT NO: 70057126		DESIGNED: CW	DRAWN: CW	DATE: 24/08/21	
DRAWING NO: 70057126_WSP_XX_XX_DR_LA_0003					REV: C01
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