



Hatfield JLR

Knowsley

Ecological Assessment

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The conclusions and recommendations contained in this document are based upon information gathered by TEP and provided by third parties. Information provided by third parties and referred to herein has not been independently verified by TEP, unless otherwise expressly stated in the document.

Nothing in this report constitutes legal opinion. If legal opinion is required, the advice of a qualified legal professional should be secured.

Executive Summary

Site Details	The site is located to the south of Coppice Lane, Whiston Lane Ends, Huyton Quarry, Huyton, Knowsley, L35 1QT. The approximate central grid reference of the site is SJ 45918 89273 and the site spans approximately 2.45ha. Motorway lanes and residential and commercial developments surrounds the site, with the exception of some deciduous woodland adjacent to the site's south-west corner. There is one recorded pond 51m south-west of the site within the deciduous woodland that cannot be accessed for great crested newts / other amphibian species and one waterbody with no aquatic flora present within.
Proposals	The proposed site layout includes the erection of a main showroom building, preparation building, workshop and a total of 499 allocated car parking spaces and 3 motorcycle allocated spaces along with associated infrastructure.
Designated wildlife sites	One international statutory site, Mersey Estuary RAMSAR / SPA / SSSI, is present within 10km. No national statutory sites are within 5km of the site and no local statutory sites are present within 2km of the site. The site is within an Impact Risk Zone and consultation with your local planning authority with regards to the development proposals may be required. Twenty-two Local Wildlife Sites for both Knowsley and Liverpool are present within 2km of the site along with one Local Geological Site, one Nature Improvement Area and two Merseyside Ancient Woodland Inventory areas.
Important Ecological Features present within or adjacent to the site	The site is mainly made up of modified, neutral grassland and hardstanding with some semi-natural broad-leaved woodland and dense / continuous scrub alongside the southern and western borders. There is one shallow waterbody within the site, one tree on-site (T1) that holds PRF-M bat roosting potential that won't be affected by development works, and four small areas with invasive plant species, <i>Cotoneaster horizontalis</i> and Himalayan balsam. The on-site building (B1) has low bat roost potential and has had a nocturnal bat survey that found no summertime roosting bats. Implications with regards to the proposed development include: ▶ The removal of habitats of ecological value; grassland, dense scrub and scattered broad-leaved trees. ▶ There is potential for amphibians, bats, birds, commuting badger and hedgehog to be present within the site and impacted by the proposed development.

Recommendations

The following recommendations are made to ensure that delivery of the project remains compliant with relevant legislation and policy:

- ▶ Consultation may be required with Knowsley Council with regards to the proximity of the nearby statutory designated site and the nature of the proposed development.
- ▶ Production of, and adherence to a contractors Risk Assessment Method Statement (RAMS) including habitat protection and control measures for surface waters, dust and airborne debris management, and tree protection in accordance with BS5387:2012.
- ▶ A Precautionary Working Method Statement (PWMS) should be produced to ensure no harm or injury to protected/priority species that may be present on site.
- ▶ An Invasive Non-Native Species (INNS) Management Plan must be followed to remove the Himalayan balsam and prevent the spread of cotoneaster within the site.
- ▶ Nesting bird checks must be carried out by an ecologist no more than 24 hours prior to the works, to confirm that no active nests are present.
- ▶ If works have not started within 6 months of the initial habitat survey, a pre-commencement badger walkover should be conducted to see if any evidence of badger presence is on-site.
- ▶ TEP recommends the inclusion of bat, bird boxes be installed within the buildings and hedgehog boxes, log/brush piles installed near the deciduous woodland on the south-west corner of the site.

This Executive Summary is not a substitute for the full report. Refer to the full text of this report for further detail.

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- Annex A: Development Proposals
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1.0 Introduction

- 1.1 The Environment Partnership (TEP) was commissioned by Taylor Design Architects on the 28th March 2024 to undertake an Ecological Assessment (EA) to support a planning application at the land south of Coppice Lane, Huyton, Knowsley, L35 1QT (hereafter referred to as 'the site').
- 1.2 An Ecological Desk Study has been produced to support this EA, reported under separate cover (TEP Ref:10523.001). This EA report should read in conjunction with the Desk Study.
- 1.3 This EA report includes details of the methods employed and any limitations of the surveys undertaken. Results are provided with supporting maps, together with an evaluation of the ecological features within the site, an assessment of the potential impacts associated with the development proposals and requirements for mitigation. The assessment has been undertaken with due consideration for current best practice guidelines (CIEEM 2017a¹, 2018²).

Site Location

- 1.4 The site is located in the land to the south of Coppice Lane, Whiston Lane Ends, Huyton, Knowsley, L35 1QT. The location of the site is depicted by the red line shown in Figure 1. The approximate central grid reference of the site is SJ 45918 89273.
- 1.5 The site comprises of mainly modified neutral grassland, hardstanding and dense continuous scrub with one large building, labelled as B1. There is some deciduous woodland adjacent to the site's south-west corner that connects to a line of semi-natural broad-leaved woodland that runs along the site's southern border.
- 1.6 The surrounding area also includes commercial estates located to the north of the site with the M57 and M62 bordering east and south sides of the site. Residential developments occupy both the immediate and wider space to the west of the site. More residential dwellings and commercial developments make up the majority of the wider areas to the north, whilst, over the M57 and M62, arable fields, woodland and scrub dominate.

¹ CIEEM (2017a) Guidelines for Ecological Report Writing, 2nd Edition. Chartered Institute of Ecology & Environmental Management

² CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.2. Chartered Institute of Ecology and Environmental Management, Winchester

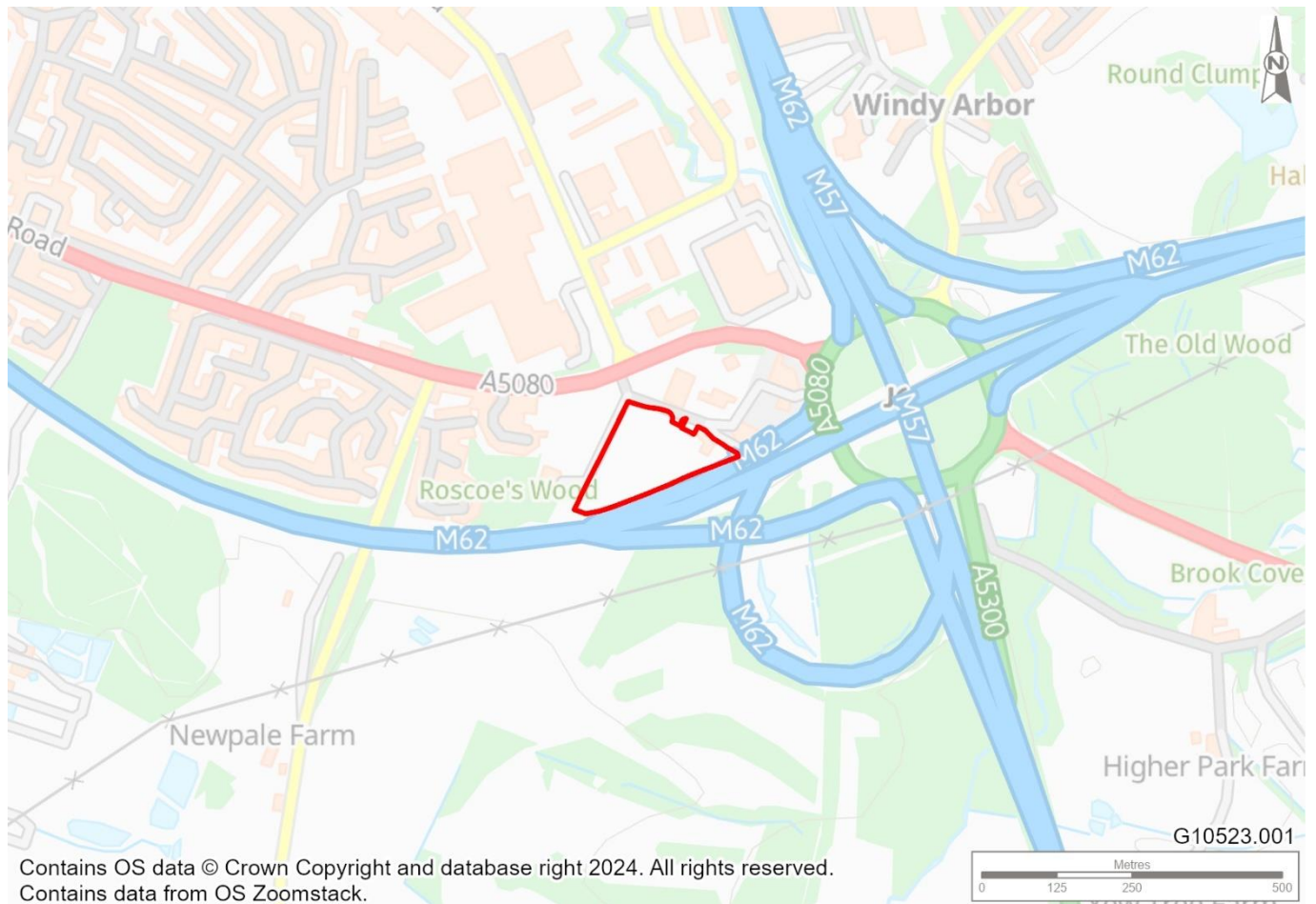


Figure 1: Site location

Proposals

- 1.7 The planning application will be submitted for the erection of a main building, and workshop, minor developments of the existing building (B1) for a preparation building, and a total of 499 allocated car parking spaces and 3 motorcycle allocated spaces along with associated works as per the Proposed Site Plan (Drawing No.101-Rev-12).
- 1.8 Further details for site proposals are presented in Appendix A.

Planning Context

- 1.9 Relevant information regarding local planning policy is provided in the Ecological Desk Study (TEP Ref 10523.001).
- 1.10 The following policies within the Knowsley Local Plan Core Strategy (adopted January 2016) are of relevance to ecology and biodiversity:

- Policy CS2 – Development principles
- Policy CS8 – Green Infrastructure
- Policy CS19 – Design Quality and Accessibility in New Development
- Policy CS21 – Greenspaces and Trees
- Policy CS23 – Renewable and Low Carbon Infrastructure
- Policy CS24 – Managing flood risk

1.11 There are two relevant saved policies from the Knowsley Replacement Unitary Development Plan 2006 (adopted June 2006), which have been saved and not replaced by policies in the Knowsley Local Plan Core Strategy. These are:

- ENV3 – Light pollution
- ENV9: Protection of Habitats and Designated Sites
- ENV10: Protection of Species
- DQ4 – Trees and development

1.12 Under the National Planning Policy Framework 2023³ (NPPF), opportunities to achieve biodiversity net gain within developments should be pursued.

Scope

1.13 This ecological assessment considers potential ecological effects upon any notable habitats or species which may be present or adjacent to the site.

1.14 This report provides baseline information on the habitats and protected species present within the site, gathered during a desktop study, the extended Phase 1 habitat survey, the Ground Level Tree Assessment (GLTA) for bats and Preliminary Roost Assessment of B1 and undertaken on the 29th May 2024 as well as the nocturnal bat survey of B1 conducted on the 17th July 2024.

1.15 This report presents the findings of the EA, the objectives of which are to:

- Detail the methods and results of the aforementioned surveys;
- Identify features of ecological value within the Site, such as legally protected species or habitats of importance to biodiversity;

³ National Planning Policy Framework (2023). Department for Levelling Up, Housing and Communities. *National Planning Policy Framework* ([publishing.service.gov.uk](https://www.gov.uk/publishing.service.gov.uk))

- Identify any non-native invasive species within the Site and provide advice regarding removal or management;
- Advise on avoidance or mitigation requirements that may be needed prior to development commencing; and
- Provide outline recommendations for biodiversity enhancement within Site proposals in accordance with the National Planning Policy Framework (NPPF).

2.0 Methods

Desk Study

- 2.1 In line with current best practice (CIEEM, 2016⁴, 2017b⁵), information regarding designated sites, notable habitats and existing protected and notable species records of the past decade, within a 2km minimum radius and 10km maximum radius of the site was collated and reviewed to inform this ecological assessment. Further detail regarding ecological zones of influence (EZOI) applied for different ecological features and the sources of information included are presented in the Ecological Desk Study (TEP Ref 10523.001).
- 2.2 In brief, key data sources included Natural England (open-source data), Environment Agency (open source data); Knowsley Local Plan Core Strategy (adopted January 2016)⁶ and other relevant protected site information and protected species records (within the past ten years) from Merseyside BioBank Records Centre.
- 2.3 Statutory designated wildlife sites were searched for as follows (EZOI applied for each is indicated in brackets):
 - Ramsar sites (10km);
 - National Sites Network (10km), includes SpEAI Areas of Conservation (SAC) and SpEAI Protection Areas (SPA);
 - Site of SpEAI Scientific Interest (SSSI) (5km);
 - National Nature Reserve (NNR) (5km); and
 - Marine Nature Reserve (MNR) (5km);
 - Local Nature Reserves (LNR) (2km).
- 2.4 Non-statutory designated wildlife sites were searched for within 2km of the Site and, within West Lancashire, these may include:
 - Knowsley Local Wildlife Site (LWS)
 - Knowsley Local Geological Site
 - St Helens Local Wildlife Sites (LWSs)

⁴ CIEEM (2016) Guidelines for Accessing and Using Biodiversity Data. Chartered Institute of Ecology & Environmental Management

⁵ CIEEM (2017b) Guidelines for Preliminary Ecological Appraisal, 2nd Edition. Chartered Institute of Ecology & Environmental Management

⁶ Knowsley Local Plan: Core Strategy (adopted 2016). [03/09/2024].

- Merseyside Ancient Woodland Inventory Site
- Nature Improvement Area (NIA)

- 2.5 Regionally Important Geological Sites (RIGS) are also identified in the search results provided by LERN, but assessment of RIGS and other geological features do not fall within the scope of this EA and are not discussed further.
- 2.6 Notable habitats were searched for within 1km of the Site. Notable habitats may include those listed under any of the following:
- Ancient woodland;
 - Main rivers;
 - Habitats of principal importance (HPI) as listed by the requirements of Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006⁷; and
 - Local Biodiversity Action Plan Habitats (LBAP).
- 2.7 Pre-existing records for notable species were reviewed from the combined data sources, where found from within approximately 2km of the Site. Notable species include those listed under any of the following:
- Protected animal species under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (EPS);
 - Protected bird species under Schedule 1 of the Wildlife and Countryside Act 1981, as amended (WCA1);
 - Protected animal species under Schedule 5 of the Wildlife and Countryside Act 1981, as amended (WCA5);
 - Protected plant species under Schedule 8 of the Wildlife and Countryside Act 1981, as amended (WCA8);
 - Invasive non-native plant species under Schedule 9 of the Wildlife and Countryside Act 1981, as amended (WCA9);
 - Invasive non-native species under the Invasive Alien Species (Enforcement and Permitting) Order 2019 (IAS);
 - Species of principal importance (SPI) as listed by the requirements of S41 of NERC;
 - Protection of Badgers Act 1992 (PBA);

⁷ Section 41 of the Natural Environment and Rural Communities Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England.

- Red and Amber listed Birds of Conservation Concern (BRd/BAm); and
- North Merseyside Biodiversity Action Plan.

Limitations

- 2.8 Species records can provide a useful indication of the species present within the search area, although the absence of a given species from the dataset cannot be taken to represent actual absence.

Habitats and Flora

Habitat Survey

- 2.9 An extended Phase 1 habitat survey and UK Hab condition assessment was completed on 29th May 2024 by an experienced TEP ecologist certified to Level 4 under the Field Identification Skills Certification. The survey was carried out in accordance with the Phase 1 habitat assessment methods (JNCC, 2010), Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017b⁸) and UK Habitat classification method (2010)⁹. The method records the habitat types present, within the survey area, based on the JNCC/ UKHab descriptions. Plant species were identified in accordance with the New Flora of the British Isles (Stace, 2019¹⁰) and recorded as target notes using the DAFOR¹¹ scale, where relevant.
- 2.10 The survey was expanded to include off-site habitats adjacent to the site in order to provide context. Adjacent habitats were viewed from accessible locations within the site boundary. Habitats are displayed with the site boundary on Drawing 1: G10523.008.

Nearby Ponds

- 2.11 From a review of aerial and OS maps, one pond is listed near to the site that is not blocked by the motorways. This pond is 51m away and within the deciduous woodland to the south-west of the site. There are three other ponds within 500m that are isolated from the site by the M62 which act as a barrier to amphibian dispersal.
- 2.12 Contact with the landowner of the deciduous woodland has revealed that the site isn't accessible due to it being fenced off, having heavily dense scrub restricting access and as there are

⁸ CIEEM (2017b) Guidelines for Preliminary Ecological Appraisal, 2nd Edition. Chartered Institute of Ecology & Environmental Management

⁹ UKHab Ltd (2023) UK Habitat Classification Version 2.0 (at <http://www.ukhab.org/>)

¹⁰ Stace, C (2019) New Flora of the British Isles. 4th edn. C&M Floristics.

¹¹ DAFOR = Dominant, Abundant, Frequent, Occasional & Rare

mineshfts present causing Health and Safety concerns. As such no Habitat Suitability Index assessment has been performed for this pond.

Limitations

- 2.13 Any ecological survey represents a snapshot of ecological conditions at the time of survey; ecological conditions may change over time. Efforts to identify dominant plant species for the purposes of characterising broad habitat types do not constitute a detailed botanical survey.
- 2.14 The extended Phase 1 habitat survey was undertaken in May, which is within the optimal survey period of April-mid-October.
- 2.15 Due to access restrictions, the nearby pond was unable to be accessed.

Fauna

- 2.16 Ordnance Survey maps and arials were reviewed to identify potentially suitable habitats offsite within influence (e.g. dispersal distances for mobile species) of the site. The ecological desk study identified any pre-existing records for protected and notable species within at least 2km of the site.
- 2.17 The habitat survey included an extended assessment of the habitats present for their potential to support notable or protected wildlife species, as described at paragraph 2.7. Any signs indicating the presence of these species were recorded.
- 2.18 In combination, this data informed the ecological evaluation of the site and impact assessment for the proposed development.

Bat Preliminary Roost Assessment of Building B1

- 2.19 A daytime Preliminary Roost Assessment (PRA) building survey of the building labelled as B1 was carried out on the 29th May 2024 a suitably qualified and experienced bat licensed TEP ecologist (Natural England licenced ecologist 2023-11289-CL18-BAT) and her H&S second.
- 2.20 The building was inspected both externally and internally (where access was available) for field signs of bats such as droppings, scratch marks, insect remains and urine smear marks. Binoculars and an endoscope were used as aids. The survey was conducted with year-round use by bats in mind.
- 2.21 Buildings were categorised according to their bat roost suitability as determined by the characteristics and potential roost features (PRF) detailed in Table 1.

Table 1: Roost assessment criteria from Table 4.1 of BCT Guidelines 2023¹²

Roost Suitability	Description of roosting habitat	Commuting and foraging habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines or generate/shelter insect populations available to foraging bats).
Negligible ^a	No obvious habitat features on site likely to be used by roosting bats.	No obvious habitat features on site likely to be used by commuting and foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site but could be used by individual bats).	Habitat that could be used by small numbers of commuting bats (e.g. a gappy hedgerow or an un-vegetated stream) or foraging bats (e.g. a lone tree or small patch of scrub) but which is isolated from the surrounding countryside by other habitat.
Moderate	A tree/structure with one or more potential roost features that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat, but which is unlikely to support a roost of high conservation status (maternity or hibernation).	Continuous habitat connected to the wider landscape that could be used by bats for commuting (e.g. lines of trees or scrub or linked back gardens), or foraging bats (e.g. trees, scrub, water, grassland).
High	A tree/structure with one or more potential roost features that are suitable for use by larger numbers of bats on a regular basis and potentially for longer periods of time, due to their size, shelter, protection, conditions and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	Continuous high-quality habitat that is strongly connected with the wider landscape that is likely to be used regularly by commuting bats (e.g. river valley, vegetated stream, woodland edge, hedgerows with trees) or foraging bats (e.g. broad-leaved woodland, grazed parkland, tree-lined watercourses or ponds). Site is close to and connected to known roosts.

^a Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant'. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute).

2.22 After building B1 was assessed, a following nocturnal bat roost survey was conducted in July 2024).

¹² Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London.

Limitations

- 2.23 Bat droppings are one of the field signs the survey looks to identify as evidence of bat activity. However, droppings on external surfaces can be washed or blown away by weather.

Bats – Nocturnal Roost Surveys

- 2.24 B1 was subject to a single nocturnal roost survey (see Table 2) in accordance with its low roost habitat suitability categorisation and the BCT Guidelines (2023).
- 2.25 The nocturnal roost survey was undertaken on the 17th July 2024 by a team of three experienced nocturnal bat surveyors, stationed at fixed vantage point facing around B1. These surveys were led by an experienced TEP ecologist.
- 2.26 Three full spectrum detectors (Elekon BatLogger M) were employed at each vantage point on the survey along with one Nocturnal Visual Aid camera (NVA camera) that used infra-red technology to record B1 in the dark, stationed at the south-west corner of B1.
- 2.27 During the survey, observations such as bat species, the number of bats entering or leaving the building, the location of entry and exit points, behaviours such as close interest in a building or its features and commuting or passing bats were recorded.
- 2.28 The dusk emergence survey commenced 15 minutes before sunset and finished at least 1.5 hours after sunset.
- 2.29 Weather conditions were recorded at the start and end of surveys in addition to any significant change in conditions during the survey. Table 2 details the conditions of the nocturnal bat roost surveys.

Table 2: Weather conditions during nocturnal tree roost surveys

Date	Sunset /Sunrise	Start	End	Temperature °C		Wind*		Cloud**		Precipitation	Moon Illumination
				Start	End	Start	End	Start	End		
17.07.24	21:30	21:15	23:00	19	18	1	1.5	4	6	None	Waxing Gibbous

*Cloud cover is reported in oktas or eights (i.e. oktas represents the complete absence of cloud, 1 okta cloud cover or 1 eighth or less and so on to 8 oktas which represents full cloud cover), with the additional convention that 9 oktas represent sky obscured by fog or mist

**Wind strength is reported using the Beaufort Scale of Wind Force, this scale runs from 0 to 12, information on the conditions experience during the survey were as follows: 1 - Light air (Smoke drifts); 2 – Light breeze (Leaves rustle).

- 2.30 Sonogram analysis was subsequently carried out using Kaleidoscope Pro Analysis Software on all recorded bat passes to confirm species identification as far as possible.

Limitations

- 2.31 The surveys were undertaken in suitable weather conditions within the optimal period for undertaking roost surveys. No seasonal or survey limitations were encountered during the survey.
- 2.32 Bats vary their calls dependent on the habitats they fly in and on their activity (commuting, foraging and social interaction, etc.). It is not always possible to identify bat calls to species level owing to the overlap of call parameters between some species and/or poor-quality recordings (e.g. brief and distance passes). In these cases, it is accepted that species are identified to genus level or group level (e.g. *Myotis*, *Myotis* / *Plecotus* and *Nyctalus* / *Eptesicus*). (Russ, 1999¹³). This ensures the dataset is interpreted accurately and transparently.

Bat Ground Level Tree Assessment

- 2.33 All trees within the site were subject to daytime ground level tree assessment (GLTA) for their suitability to support roosting bats. The GLTA was completed on 29th May 2024 by the licensed TEP ecologist. At the time of the GLTA the weather conditions were optimal for survey.
- 2.34 Trees were viewed from the ground with the aid of binoculars and a high-powered torch (fitted with a red filter) where necessary. Where accessible from the ground, potential roost features (PRF) were closely inspected using an endoscope and torch as aids. Based on the PRF characteristics, trees were categorised for their roost suitability according to the criteria summarised in Table 3.

Table 3: Categorisation of suitability of tree PRFs for roosting bats (taken from the BCT Good Practice Guidelines, Collins J, 2023)

Tree PRF Suitability	Further Requirements
None	No survey requirements.
FAR	Further assessment is required as from ground level features could not be categorised due to constraints such as dense foliage and angle of view.
PRF-I (PRF is only suitable for individual bats, or very small numbers of bats, either due to size or lack of suitable surrounding habitat)	No further surveys required. Appropriate compensation required for each PRF-I, prior to impacts. Supervision of works and a precautionary inspection of the PRFs to be completed by a bat licenced consultant.

¹³ Russ J (1999) *The Bats of Britain and Ireland: Echolocation Calls, Sound Analysis, and Species Identification*. Alana Books, Ludlow, UK.

PRF-M (PRF is suitable for multiple bats and may therefore be used by a maternity colony.)	Three aerial PRF inspections of the PRF-M features to be undertaken within May – September, spaced three weeks apart. Where access is not possible for aerial inspection either by ladder or MEWP, or features are too extensive to survey thoroughly, three dusk emergence surveys will be carried out, supported with night vision camera aids.
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Limitations

- 2.35 The GLTA was undertaken outside the optimum survey season, due to foliage being present on trees. However, the trees were surveyed using binoculars and a precautionary approach to the assessment has been adopted.

Ecological Assessment Process

- 2.36 This EA follows the published guidelines (CIEEM, 2018) and accepted best practice approach (BS42020:2013¹⁴) of the mitigation hierarchy whereby impacts are first avoided or, where this is not possible, reduced or mitigated or, as a last resort, compensated.
- 2.37 In summary, the following procedure was undertaken during this EA:
- Describe the baseline and identify important ecological features;
 - Describe important ecological features and identify those which may potentially be affected by the site;
 - Identify potential impacts upon important ecological features and characterise the effect of such impacts (in respect of biophysical changes and taking account of relevant aspects of ecosystem structure or function);
 - Incorporate measures to avoid or reduce these effects;
 - Determine whether residual ecological effects are considered significant after avoidance or mitigation;
 - Identify appropriate compensation measures to offset significant residual effects; and
 - Identify opportunities for ecological enhancement.
- 2.38 Important ecological features are identified and valued, ecological impacts are characterised and assessed, and recommendations for appropriate mitigation, compensation and enhancement are made, in accordance with CIEEM guidance.

¹⁴ British Standards Institution (2013) BS 42020:2013: Biodiversity — Code of practice for planning and development. BSI Standards Limited, London

- 2.39 BS42020:2013 defines a significant effect as one “which is important, notable, or of consequence, having regard to its context”. CIEEM describes significance as “a concept related to the weight that should be attached to effects when decisions are made”. CIEEM defines an ecological effect as significant if it is “sufficiently important to require assessment and reporting so that the decision maker is adequately informed of the environmental consequences of permitting a project”.
- 2.40 BS42020:2013 sets out a practical approach to determining the significance of an ecological effect, applicable at all levels of decision making in legal and policy terms, as follows:
- will the effect on biodiversity influence the balance of planning considerations and therefore the decision as to whether planning permission is likely to be refused or granted; and
 - if planning permission is granted, is the effect important enough to warrant the use of planning conditions and/or obligations to guarantee proposed measures or to impose restrictions, or to seek further requirements (e.g. for mitigation, compensation, enhancement, monitoring or management).
- 2.41 Significance is therefore assessed on a case-specific basis according to the importance of the ecological feature (wildlife site, habitat or species) within the conservation hierarchy, and the effect upon it.

Assumptions

- 2.42 Information provided by third parties, including publicly available information, is assumed to be correct at the time of publication.

3.0 Results

Planning Context

- 3.1 The NPPF at Chapter 15: Conserving and Enhancing the Natural Environment requires that development delivers net gains in biodiversity in addition to minimising the impacts on biodiversity. The chapter highlights the need to protect and enhance valued landscapes, geological conservation interests and soils, as well as recognising the wider benefits of ecosystems.
- 3.2 The Knowsley Local Plan Core Strategy was adopted by Knowsley Council in January 2016. Relevant extracts of local planning policy are provided in the Ecological Desk Study (TEP Ref 10523.001). The following policies relate to biodiversity and nature conservation.
- Policy CS2 – Development principles;
 - Policy CS8 – Green Infrastructure;
 - Policy CS19 – Design Quality and Accessibility in New Development;
 - Policy CS21 – Greenspaces and Trees;
 - Policy CS23 – Renewable and Low Carbon Infrastructure and;
 - Policy CS24 – Managing flood risk

Saved Policies

- 3.3 There are two relevant saved policies from the Knowsley Replacement Unitary Development Plan 2006 (adopted June 2006), which have been saved and not replaced by policies in the Knowsley Local Plan Core Strategy. These are:
- ENV3 – Light pollution
 - ENV9: Protection of Habitats and Designated Sites
 - ENV10: Protection of Species
 - DQ4 – Trees and development

- 3.4 A review of Knowsley Councils Interactive Local Plan Map indicates the land is assigned as Primarily Industrial Area. The Liverpool City Region Local Nature Recovery Strategy Map indicates that site and adjacent land are not allocated for biodiversity purposes.

Wildlife Sites

Statutory Wildlife Sites

- 3.5 Full details regarding designated sites are provided within the Ecological Desk Study (TEP Ref 10523.001).
- 3.6 There is only one statutory wildlife site within 10km of the site. This is:
- Mersey Estuary – SSSI, SPA and Ramsar - Approx 6.32km south-east of the site.
- 3.7 The nearby River Mersey is a Nature Improvement Area, SPA, SSSI and Ramsar designated site.

Other Statutory Wildlife Sites

- 3.8 There are no Statutory wildlife sites of local significance within 5km of the site.
- 3.9 The site lies within a single SSSI Impact Risk Zone (IRZ). This highlights the potential for effects on a SSSI if certain types of development are planned within a specified radius of it. The proposals do not meet any of the risk parameters identified for this IRZ, with the exception of the following:
- Rural Non-Residential: Large non-residential developments outside of existing settlements/urban areas where the footprint exceeds 1ha.
- 3.10 As the site falls under this criteria, consultation with your local planning authority regarding the development may be required.

Local Wildlife Sites

- 3.11 There is one Merseyside Ancient Woodland Inventory areas, one Nature Improvement Area and one Knowsley Local Geological Site within 2km of the site. These are as follows:
- The Old Wood - Merseyside Ancient Woodland Inventory - Approx. 570mm north-west of the site
 - Netherley Brook - Knowsley Local Geological Site - Approx. 1.8km south-west of the site
 - Netherley Brook and Ditton Brook Corridor - Nature Improvement Area - Approx. 0.6km south of the site
- 3.12 There are 22 non-statutory local wildlife sites identified within 2km of the site. The closest are as follows:
- Daggers Bridge Wood - Approx. 480m south-east of the site

- The Old Wood, South - Approx. 570m south-east of the site
- Dog Clog Brook, Tarbock - Approx. 690m south-east of the site
- Ox Lane Wood, Tarbock - Approx. 770m south of the site
- Mine Waste, Cronton - Approx. 810m south-east of the site

Habitats and Flora

Pre-existing Data

- 3.13 The Desk Study identified no notable habitats on the site, but deciduous woodland adjacent to the site's south-western corner.
- 3.14 No records of protected and notable flora species or non-native invasive species were returned within the site.
- 3.15 Wildlife and Countryside Act Schedule 9 Invasive flora records were returned within 2km of the site as follows:
- Duck-potato, *Sagittaria latifolia*
 - Floating Pennywort, *Hydrocotyle ranunculoides*
 - Himalayan Balsam, *Impatiens glandulifera*
 - Himalayan Cotoneaster, *Cotoneaster simonsii*
 - Japanese Knotweed, *Fallopia japonica*
 - Japanese Rose, *Rosa rugosa*
 - Variegated yellow-archangel *Lamium galeobdolon subsp. argentatum*
 - Montbretia, *Crocsmia pottsii x aurea*
 - Rhododendron, *Rhododendron ponticum*
 - Virginia-creeper, *Parthenocissus quinquefolia*
- 3.16 Records of several species of protected flora were received from Merseyside BioBank and can be reviewed in greater detail in the Ecological Desk Study (TEP ref: 10523.001). These include the following:
- Bluebell, *Hyacinthoides non-scripta* (WCA8 only in appendix)
 - Cornflower, *Centaurea cyanus* (SPI)
 - Grape-hyacinth, *Muscari neglectum* (SPI)
 - Spreading Hedge-parsley, *Torilis arvensis* (SPI)

- Yellow Bird's-nest, *Hypopitys monotropa* (SPI)

3.17 Habitats of ecological value present in and around the site are described below and illustrated in Drawing 1. Target notes (TN) and photographs illustrative of the habitat/feature described are provided in Appendix B. Habitats of ecological value present in and around the site are described below and illustrated in Drawing G10437.008. Photographs illustrative of the buildings described are provided in Appendix A.

3.18 Habitats present within the site include:

- Modified neutral grassland
- Hardstanding
- Dense continuous scrub and scattered scrub
- Building B1
- Scattered broad-leaved trees
- Native intact hedges
- Semi-natural broad-leaved woodland
- Ephemeral pool

Modified Neutral Grassland

3.19 The site is mainly comprised of modified neutral grassland (TN1, Figure 2). The grassland appears unmanaged and well grown with frequent creeping bent *Agrostis stolonifera*, soft rush *Juncus effusus*, lupin *Lupinus regalis* (a garden escape) and red campion *Silene dioica*. Other species include false oat grass *Arrhenatherum elatius*, willowherb species *Epilobium* sp., daisy *Bellis perennis*, cock's foot *Dactylis glomerata*, soft rush *Juncus effusus*.



Figure 2: Modified neutral grassland with frequent *Lupinus regalis*

Hardstanding

- 3.20 The site has a large area of hardstanding (TN2, Figure 3) in its eastern portion with a minor amount of ephemeral grass around its borders. The species within the ephemeral grass include occasional yarrow *Achillea millefolium*, buddleia *Buddleja davidii*, common mouse-ear *Cerastium fontanum* and cock's-foot *Dactylis glomerata*.



Figure 3: Hardstanding with some minor ephemeral grass around its borders

Dense Continuous Scrub and Scattered Scrub

- 3.21 There is a large amount of dense continuous scrub (TN4, Figure 4) along the south and west portions of the site and scattered scrub across the whole site. The dense continuous scrub is dominated by bramble *Rubus fruticosus* agg. and has occasional dogwood *Cornus sanguinea*, hawthorn *Crataegus monogyna* and willowherb species, hogweed *Heracleum sphondylium* and St John's-wort species *Hypericum* sp.



Figure 4: Dense continuous scrub

Building B1

- 3.22 The site includes the building known as B1 (Figure 5). B1 is in a minor state of disrepair and is unoccupied. The building has corrugated iron cladding roof with two open windows on its north side. The building has three PRF aspects to it including the lintel above the door on the southern side that has a gap suitable for roosting bats.



Figure 5: The on-site building B1

Scattered Broad-Leaved Trees

- 3.23 There are scattered broad-leaved trees (TN5, TN8 and Figure 6) within the site along the western and southern aspects. These are mainly mature sycamores *Acer pseudoplatanus*, English oaks *Quercus robur*, and alders *Alnus glutinosa*.



Figure 6: Scattered broad-leaved trees

Native Intact Hedgerow

- 3.24 There is a line of broad-leaved trees running within a native, intact hedgerow (TN6 and H1, Figure 7) along the western border of the site. The hedgerow is dominated by hawthorn, and frequently supports cow parsley *Anthriscus sylvestris*, cleavers *Galium aparine* and ivy *Hedera helix*.



Figure 7: Native intact hedgerow

Semi-Natural Broad-Leaved Woodland

- 3.25 There are patches of semi-natural broad-leaved woodland on site within the southern and eastern areas (TN7 and TN10, Figure 8). These woodland patches have abundant alder, *Alnus glutinosa*, frequent crack willow *Salix fragilis* and Goldenrod *Solidago virgaurea* and occasional ash *Fraxinus excelsior* trees within them.



Figure 8: Semi-natural broad-leaved woodland

Waterbody

- 3.26 There is a small body of water (TN3, Figure 9) that is approximately 10cm deep located towards the outer hardstanding and could potentially dry out. No aquatic plants are present within it and a review of google earth showcased the waterbody was likely caused by groundworks approximately 2 years ago.



Figure 9: Waterbody on-site

Notable or Notable or Invasive Flora

Himalayan Balsam

- 3.27 The southern patch of semi-natural broad-leaved woodland (TN7, Figure 10) also includes Himalayan Balsam *Impatiens glandulifera* at W3W: object.king.matter, W3W: donor.zooms.school and W3W: thank.enable.trail. Himalayan balsam is also present in a small area at W3W: scarcely.busy.torn in the dense scrub (TN4).



Figure 10: Himalayan balsam in the semi-natural broad-leaved woodland TN7

Cotoneaster horizontalis

- 3.28 There were two patches of *Cotoneaster horizontalis* found growing on two areas of the hardstanding, one by the main entrance at W3W: risk.makes.being and another at parts.comb.trail (Figure 11). This species is under Schedule 9 of the wildlife and countryside act (as amended) and should not be allowed to spread. These patches of cotoneaster are marked in Drawing 1 G10523.008.



Figure 11: *Cotoneaster* growing in area of hardstanding

Habitat Connectivity

- 3.29 The site is located within a commercial development and area and adjacent to a residential development area. Only the deciduous woodland adjacent to the south-west corner of the site offers any habitat connectivity, with the exception of a line of trees among a native intact hedge line running along the western boundary of the site.
- 3.30 The M57 and M62 bordering the east and south sides of the site prevent terrestrial movement into the site and the residential and commercial developments hinder terrestrial mammal movements to the north, east and west of the site. There may be some habitat linkages with the residential gardens adjacent but generally the site is isolated from areas of ecological value.

Fauna

- 3.31 The potential for the site to support legally protected and notable species has been assessed using the results of the desk study and observations of habitats within and immediately surrounding the site made during the site survey. Based on these observations, the habitats present within the site were assessed for their suitability for the following species:

- Amphibians
- Badger
- Bats
- Birds
- Hedgehog

Amphibians

- 3.32 The ecological desktop study found no records of any on-site amphibians. It did recover 14 records of Great Crested Newt *Triturus cristatus* (GCN) within 2km of the site, however all of these were from beyond the M62 motorway amphibian barrier to the site. All records for GCN came from beyond the M62 motorway south of the site. There are also no records for a Natural England mitigation licence within 2km.
- 3.33 Other amphibian records included 38 records of common frog, *Rana temporaria*, with the closest record being 520m south-east of the site (SJ46198882). Only three records of common frog are not beyond the M62 and M57 motorways.
- 3.34 Eleven records of common toad, *Bufo bufo*, were found, with the closest being from 830m south-east of the site (SJ46298853). All common toad records were beyond the M62 and M57 motorways.
- 3.35 There is only one record of palmate newt, *Lissotriton helveticus* that comes from beyond the M62 motorway and 14 records of smooth newt, *Lissotriton vulgaris*, with the closest being 700m north-east of the site (SJ4690) whereby migration may be impeded by multiple roads between that area and the site, whilst all the other records of smooth newt are further away and beyond the M62 motorway.
- 3.36 Although the on-site waterbody does not contain any aquatic vegetation, it does have terrestrial plant species that can be used as breeding habitat for amphibians, i.e. marsh willowherb *Epilobium palustre*. Due to the on-site waterbody, dense continuous scrub, grassland and scattered scrub present, the site has suitable habitat for common amphibian foraging, breeding, refuge and hibernation, however it has been assessed as not having optimum GCN breeding potential and could dry out.
- 3.37 As the listed nearby pond could not be assessed to confirm whether it is suitable for a survey and a Habitat Suitability Index assessment, it is necessary to assume, as a precautionary measure, that it may be present, and suitable as amphibian breeding habitat. However, there are no nearby records of GCN and they generally require a collection of ponds for their breeding and foraging habitat, as such we conclude that there is a low likelihood of GCN being present within the site and within the area.

- 3.38 As a precautionary approach, the mitigation measures in Section 5 will assume other protected and notable commuting and foraging amphibians may derive from the deciduous woodland and on-site waterbody.

Badger

- 3.39 Twenty-two records of badger were returned on the desktop study for within 2km of the site, the majority are behind the M62 and M57 motorway, with the closest being approx. 500m from the site (additional location information withheld due to badger protection measures). The extended phase 1 habitat survey also revealed that no badger setts, or evidence of badger, were present on-site.
- 3.40 Commuting routes for badger are disrupted by the M57 and M62 bordering the east and south sides of the site, and commercial and residential properties in the north and west. However the deciduous woodland to the south-west was inaccessible and as such, may contain badgers. Best practise measure are therefore recommended in Section 5.

Bats

- 3.41 The desktop study returned one record of a Natural England mitigation licence within 2km of the site, relating to common pipistrelle *Pipistrellus pipistrellus*, Soprano pipistrelle *Pipistrellus pygmaeus*, Long-eared bat species *Plecotus sp.* and Natterer's bat *Myotis nattereri* from between 2013-2014.
- 3.42 The desk study returned numerous records of bats from within 2km of the site comprising the following species:
- Common Pipistrelle *Pipistrellus pipistrellus* (WCA5, EPS, LBAP) – 10 records;
 - Daubenton's Bat *Myotis daubentonii* (WCA5, EPS, LBAP) – 8 record;
 - Leisler's bat *Nyctalus leisleri* (EPS, WCA5, LBAP) – 1 record.
 - Noctule Bat *Nyctalus noctula* (WCA5, EPS, LBAP, SPI) – 8 records;
 - Pipistrelle sp. *Pipistrellus sp.* (WCA5, EPS, LBAP, SPI) – 1 record;
 - Soprano Pipistrelle *Pipistrellus pygmaeus* (WCA5, EPS, LBAP) – 9 records; and
 - Unidentified bat species *Chiroptera sp.* (EPS, LBAP) – 3 records;
- 3.43 All bat species are covered in the LBAP for North Merseyside, meaning any bat species presence on site is of local importance.

Ground Level Tree Assessment for Bats

- 3.44 The trees within the site were assessed for their suitability to support roosting bats at the same time as the phase 1 habitat survey. All of the trees assessed were considered to have negligible

bat roosting potential with the exception of one tree, a mature poplar labelled as T1 (SJ 45837 89273). This tree was assessed as having PRF-M bat roost potential.

3.45 However, after the discussions with the client and a TEP Principal Ecologist on 8th July 2024, it was decided that the tree T1 will be retained within a 3 metre buffer of landscaping, there will be no direct impacts, i.e. loss or damage of potential bat roosting habitat associated with the tree and measures will be taken to prevent light spillage unto the retained habitat to prevent in-direct impacts upon potential bat roosting habitat. As such, no surveys of tree T1 are required to determine if bats are roosting in the tree.

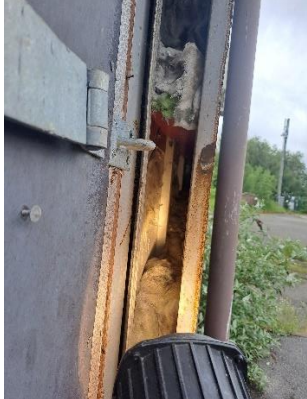


Figure 12: Mature poplar at western border with PRF-M status

Preliminary Roost Assessment of the Building

3.46 The on-site building was and subject to a daytime bat assessment for its suitability to support roosting bats on the 29th May 2024 and surveyed for bats with a nocturnal roost survey on the 17th July 2024. Table 4 below provides details of the building and the details of its bat roosting potential.

Table 4: Results of Daytime Bat Inspection of B1

Ref	Description	Photographs
B1	Building Exterior: Intact corrugated metal walls and roof. Minor weathering damage. Metal gapping at gable edges. Building Interior: Warehouse with limited openings for PRFs. No roof void present and windows meant it is light inside. PRF 1: Open windows to first floor – low suitability. PRF 2: Gap in cladding along the right of a door. Access to wall cavity with insulation – Low suitability. PRF 3: Gap under wooden bargeboard on external room on southern aspect, leads to small cavity re-opening along the western edge – Low suitability. Final Roost suitability: Low	 External view  Internal view  PRF 1  PRF 2  PRF 3

Nocturnal Roost Surveys

- 3.47 Due to B1 having low bat roost potential, one nocturnal roost survey was required and performed on the 17th July 2024. No roosting behaviour was identified, however bats circulated the building and foraged within the area during the survey period. The results of the nocturnal bat roost survey of the building, are provided in Table 5 and summarised below.

Table 5. First and last bat contact times recorded per species recorded during nocturnal roost surveys and surveyor observations of bat activity within the locality of the building.

Date	Survey Time	Sunrise/ Sunset	Weather Data	Species Recorded (First contact time for dusk emergence nocturnal roost surveys)	Surveyor Observations
17.07.24	Start: 21:15 End: 23:00	21:30	Temperature (Celsius) Start 19°. End 18°. Cloud level (Okta) Start 4. End 6. Wind (Beaufort) Start 1. End 1.5 No rain throughout survey.	First Soprano pipistrelle calling at 21:44 First noctule calling at 21:35 First common pipistrelle calling at 22:06.	No roosting recorded.

- 3.48 The majority of the calls were common pipistrelle with a smaller amount of noctule and soprano pips. Both social calling and foraging calling were observed.

Foraging and Commuting

- 3.49 Habitats within the site suitable for foraging and commuting including semi-natural broad-leaved woodland, the native intact hedgerow with the row of scattered broad-leaved trees and dense scrub along with the adjacent deciduous woodland. In line with current guidance¹⁵ the site is considered to have 'moderate' habitat suitability for foraging and commuting bats.

Birds

- 3.50 Records were returned for WCA Schedule 1 species including barn owl *Tyto alba*, little ringed plover, *Charadrius dubius* and kingfisher *Alcedo atthis*. However, no nesting or foraging WCA Schedule 1 birds are at risk with the proposed developments. There is no suitable habitat within

¹⁵ Collins, J (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn). The Bat Conservation Trust, London

or adjacent to the site for kingfisher, the building does not have good suitability for barn owls and the hardstanding is not the fitting for Little Ringed Plovers.

- 3.51 A number of records of farmland and wintering bird species were returned including yellow wagtail *Motacilla flava*, twite *Linaria flavirostris* and corn bunting *Emberiza calandra* (LBAP), however habitats within the site are not suitable to support these species either.
- 3.52 Due to the overgrown vegetation, the site is also not suitable for the other recorded ground nesting birds recorded within the 2km buffer area with the exemption of skylarks, *Alauda arvensis* (SPI, BRd, LBAP), of which there is still only low suitability for the species.
- 3.53 The site is most suitable for woodland, hedgerow and tree nesting bird species. Records of protected species that may use the site were included, dunnoek *Prunella modularis* (SPI, BAm), grasshopper warbler *Locustella naevia* (SPI, BRd), starling *Sturnus vulgaris* (SPI, BRd), reed bunting *Emberiza schoeniclus* (SPI, BAm) and song thrush *Turdus philomelos* (SPI, BAm, LBAP).

Hedgehogs

- 3.54 Forty-six records of West European hedgehog *Erinaceus europaeus* were returned on the desktop study. The distribution of hedgehog records are scattered around the site with 9 recordings coming from the residential properties to the west of the site and the closest coming from 290m north-east of the site, in front of the M57 (SJ 46131 89315 from 2014).
- 3.55 Habitats within the site are suitable to support hedgehog foraging, commuting, refuge and hibernation, these habitats include the semi-natural broad-leaved woodland, dense scrub, grassland and scattered scrub.

Other Relevant Species

Invertebrates

- 3.56 Seventeen records of protected and notable invertebrates were returned on the desktop study (TEP ref 10523.001). The site provides habitats for invertebrate species including the dense scrub and grassland. However, as these habitats are common locally it is not considered that the site would hold an important assemblage of invertebrate species. Therefore, invertebrates are excluded from further appraisal within this report.

Reptiles

- 3.57 No records of reptiles were returned on the desktop study. Although the site does contain grassland habitat suitable to support reptile species, as the site is isolated from further suitable habitat in the wider landscape and no records of reptiles come from within the site, it is considered the site is unsuitable to support reptiles and are excluded from further appraisal within this report.

Otter and Water Vole

- 3.58 One record of Eurasian otter, *Lutra lutra* was returned from the desk study from 2014 (SJ4642588641) that comes from 809m south-east of the site and is blocked by ecological barriers including the M62. Nine records of European water vole, *Arvicola amphibius* were recorded, with the closest being from 563m north-east (SJ461898) from 2014. There are no suitable habitats in the form of watercourses within or adjacent to the site suitable to support water vole or otter. These species are therefore excluded from further appraisal within this report.

4.0 Assessment of Potential Impacts

- 4.1 This section assesses the potential impacts on ecological features associated with the site described in Section 1.0.
- 4.2 Consideration is given to the 'mitigation hierarchy', i.e. that impacts are first avoided or where this is not practicable, mitigated and as a final resort, compensated (off-set).

Wildlife Sites

National Sites Network

- 4.3 One international statutory wildlife sites are present within 10km of the site and no national statutory wildlife sites are present within 5km of the site. The closest statutory site is 6.32km south-east of the site. There are no direct or indirect linkages with any of the national sites and therefore no impacts from the proposed development are anticipated.
- 4.4 The site is located within a SSSI Impact Risk Zone (IRZ) therefore the LPA may be required to consult Natural England.

Local Wildlife Sites

- 4.5 The 22 non-statutory Knowsley Local Wildlife Sites and Liverpool Local Wildlife Site identified in the desk study have no direct or indirect linkages to the site and no direct or in-direct impacts from the proposed development are anticipated, just as no impacts from the proposed development are anticipated from the Merseyside Ancient Woodland Inventory area, the Nature Improvement Area or Knowsley Local Geological Site that reside within 2km of the site.

Habitats and Flora

Notable Habitats

- 4.6 There are no notable habitats on the site, however there is deciduous woodland adjacent to the south-west corner of the site.

On-site Habitats

- 4.7 All habitats on site are considered to be of low/negligible ecological value.
- 4.8 The Proposed Site Plan (Drawing No.101-Rev-12) and Sitewide Demolition Plan (Drawing No.103-Rev-01) indicate the removal of the majority of the habitats from the site (leaving south-west corner) and scattered broad-leaved trees not stationed at the edges of the site.

Notable or Invasive Flora

- 4.9 No protected (WCA8) plant species were identified during the extended Phase 1 habitat survey however two species of invasive (WCA9) plants were identified. These were Himalayan Balsam and *Cotoneaster horizontalis*. As such, there are implications for the development proposals with regard to invasive plant species.

Other Habitats

Buildings

- 4.10 No major works are proposed for the building. A new front entrance will be installed, and new cladding installed and painted to upgrade the exterior of the building.

Fauna

Amphibians

- 4.11 There is one area of aquatic habitat within the site, the shallow waterbody that offers limited foraging, breeding and resting habitat for amphibians that may also be ephemeral. The site also has a recorded pond 51m away from the site boundary within the adjacent deciduous woodland and as such it is possible that roaming amphibians can arrive on site, with GCN being a very unlikely species to move from there into the site.
- 4.12 The terrestrial habitat within the site is also suitable for commuting, foraging and hibernating common amphibian species such as common toad *Bufo bufo*. The amphibians may reside on site and may be impacted by the proposed development. Therefore, there are implications with regards to the proposals and amphibians and precautionary measures will need to be incorporated into the mitigation strategies.

Bats

- 4.13 All British bats are European protected species, afforded full protection under the Habitats Regulations and the Wildlife & Countryside Act 1981 (as amended). Bats are protected from killing or injury, and from disturbance at the place of rest. Bat roosts are also protected from obstruction, damage or destruction (whether or not a bat is in occupation at the time). Several species are also SPI, and all bats are listed on the North Merseyside Biodiversity Action Plan (LBAP).
- 4.14 No summer roosting bats were identified in the building during the nocturnal emergence survey, therefore no European Protected Species Licence (EPSL) will be required for summer roosting bats. The findings of this survey are valid for two survey seasons from date of the last nocturnal survey September 2024. Precautionary working measures are set out in section 5 of this report to take into account bats that may have moved to roost in the building in the intervening period between the 2024 roost survey and renovation works to the building.

Foraging and Commuting

- 4.15 The site is small and fragmented within the wider landscape. The M62 is adjacent to the southern boundary of the site. Industrial development is adjacent to the north-east boundary of the site. The western boundary of the site provides the most suitable foraging and commuting habitat being associated with a woodland in the south-west corner. Bat species recorded on the emergence surveys were common and widespread species, mostly common and soprano pipistrelle with occasional noctule. Bat foraging and commuting habitat may be impacted by the proposed development and therefore there are implications with regards to the proposals and bats.
- 4.16 It is understood that JLR have standards for lighting posts, which will be installed within the compound and the proposed general parking areas. The proposed works mean an average luminance of 30 lux is expected, however, the front of the main entrance of the store (west facing, north of the line of trees along the western boundary) will have a display with an average of 50 lux. Consideration for foraging and commuting bats will be made in the design of the proposals including a sensitively lighting strategy that will include shielding in front of the line of trees that can act as a bat corridor.

Birds

- 4.17 The habitats suitable to support nesting birds include the building, trees, dense scrub and grassland. As these will be impacted by the proposals, any felling, lopping or vegetation clearance will need to be carried out in the nesting period (generally considered to be between February to September inclusive,) however some species nest outside this period.
- 4.18 The building will receive minor renovations that do not pose a likely threat to any nesting bird species that potentially may use the building as nesting habitat. The mitigation strategies detailed in Section 5 will detail the precautionary measures so on-site personnel have a clear procedure if a nesting bird is found during any renovation works.

Badger

- 4.19 The habitat is suitable for commuting and foraging badgers, additionally there is suitable habitat within the site for sett creation and nearby habitats that could hold existing setts. Therefore, there is the potential for impacts to foraging and commuting badger if present for the site.

Hedgehog

- 4.20 There is suitable habitat within the site to support foraging and hibernating hedgehog and multiple nearby records of hedgehog. Therefore, there is the potential for harm or injury to this species if present on site.

5.0 Mitigation and Enhancement

- 5.1 This section describes appropriate and proportionate measures for impact avoidance, mitigation and enhancement required or recommended to address the potential ecological effects described in Section 4.0.

Wildlife Sites

National Sites Network

- 5.2 Existing SACs and SPAs were notified via the Conservation of Habitats and Species Regulations 2017¹⁶ (as amended) (the 2017 Regulations) which were the UK implementation of the European Union's Habitats Directive (Council Directive 92/43/EEC) and certain elements of the Wild Birds Directive (Directive 2009/147/EC) (known as the Nature Directives) prior to Brexit. The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019¹⁷ (2019 Regulations) created a National Site Network on land and at sea, which includes all existing SACs and SPAs and any new SACs or SPAs designated under these Regulations.
- 5.3 The UK ratified Ramsar Convention¹⁸ on wetlands of international importance underpins the designation of Ramsar sites through prior notification of these areas as SSSIs. Accordingly, these receive statutory protection under the Wildlife & Countryside Act 1981¹⁹ (as amended). At a policy level and under the 2019 Regulations, Ramsar sites remain protected in the same way as SACs and SPAs.
- 5.4 SSSIs are a statutory notification made under the Wildlife & Countryside Act 1981 (as amended); this Act also includes provision for the protection and management of SSSIs. LNRs are a statutory designation made under Section 21 of the National Parks and Access to the Countryside Act 1949, amended by Schedule 11 of the Natural Environment and Rural Communities Act 2006²⁰, by principal local authorities.

Avoidance and Mitigation Required

- 5.5 As the site is within a Natural England IRZ, it is recommended that once the design of the development proposals are finalised, consultation with your local planning authority is undertaken

¹⁶ Conservation of Habitats and Species Regulations 2017 (SI 2017/1012) <https://www.legislation.gov.uk/ukSI/2017/1012/>

¹⁷ Conservation of Habitats and Species Regulations 2019 (SI 2019/579) <https://www.legislation.gov.uk/ukSI/2019/579/>

¹⁸ Convention on Wetlands of International Importance espEALLY as Waterfowl Habitat, Ramsar, 2.2.1971 <https://www.ramsar.org/>

¹⁹ Wildlife and Countryside Act 1981 c. 69 <https://www.legislation.gov.uk/ukpga/1981/69/>

²⁰ Natural Environment and Rural Communities Act 2006 c. 16 <https://www.legislation.gov.uk/ukpga/2006/16/>

to establish any possible impacts of the proposed development on the nearby statutory designated sites and whether Natural England should be informed.

Habitats and Flora

Trees and Scrub

Avoidance and Mitigation Required

- 5.6 Retained trees within and adjacent to the site should be protected from accidental damage during site clearance and construction, in accordance with BS5837:2012 Trees in relation to design, demolition and construction.
- 5.7 Biosecurity measures should be implemented including washing and disinfecting of footwear, tools, and machinery, within a controlled bunded area, to ensure that invasive species and zoonotic diseases are not brought onto or spread across or offsite as a result of the works.
- 5.8 Any works carried out by contractors should be accompanied by a Risk Assessment Method Statement (RAMS) detailing appropriate biosecurity measures to be observed for the duration of the works and outlining the scope of the works undertaken and any ongoing monitoring/works required.
- 5.9 The tree T1 is to be retained, and undisturbed with direct lighting and have at least a 3m space of soft-scaping as currently shown in the Proposed Site Layout (Drawing 101 – Rev-12).

Additional Measures or Enhancement Recommended

- 5.10 It is recommended that tree and scrub planting is incorporated into the landscape plan.

Grassland

Avoidance and Mitigation Required

- 5.11 The modified neutral grassland within the site is considered to have low ecological value, however, does contribute to the mosaic of habitats within the site and the local area and therefore should be retained and enhanced, where possible.

Additional Measures or Enhancement Recommended

- 5.12 It is recommended that areas of species-rich grassland are incorporated into the landscape plan and these areas be sensitively managed to encourage a diverse sward.

Fauna

Amphibians

Avoidance and Mitigation Required

- 5.13 Several amphibians are awarded protection in the UK, great crested newts are fully protected under the Wildlife and Countryside Act (as amended) and common toad are a SPI. Due to the nearby recorded pond and deciduous woodland nearby the site, the on-site waterbody and due to the site's suitability for foraging, breeding, hibernating and foraging amphibians, for good practice precautionary working measures should be adopted to minimise the risk of harm or injury to common amphibian species during works. Measures should be outlined with a protected / priority species Precautionary Working Method Statement (PWMS) to better ensure no harm or injury to amphibians.

Additional Measures or Enhancement Recommended

- 5.14 It is recommended that areas of suitable terrestrial habitat for common amphibians, including grassland, dense scrub and scattered broad-leaved trees, are retained where possible. Any loss of suitable habitat should be compensated for within the landscape plan. In addition, log or brash piles could be created within the site to provide additional refuge and hibernation opportunities for these species. These would be best suited to the south-west corner of the site to be nearest the deciduous woodland.

Bats

- 5.15 All British bats are European protected species, afforded full protection under the Habitats Regulations and the Wildlife & Countryside Act 1981 (as amended). Bats are protected from killing or injury, and from disturbance at the place of rest. Bat roosts are also protected from obstruction, damage or destruction (whether or not a bat is in occupation at the time). Noctule *Nyctalus noctula*, soprano pipistrelle *Pipistrellus pygmaeus* and brown long-eared bat *Plecotus auritus* species are also SPI and all bats are listed on the North Merseyside Biodiversity Action Plan (LBAP).

Further Survey, Avoidance and Mitigation Required

- 5.16 Emergence surveys of the building B1 found no roosting bats and no mitigation measures or licences are required. However bats may occupy the building in the future, as such precautionary working measures should be adopted if B1 is to be impacted and any works should be undertaken between November and March, to minimise the risk of harm or injury to bats during the renovation works. Measures will include a pre works check of feature previously identified and any further PRF features that may arise by a Natural England licensed bat ecologist prior to renovation works. The inspection will involve using an endoscope and 1 million clulite torch.

- 5.17 In the unlikely event bat(s) are found roosting during summer and/or hibernation pre works checks then works will need to cease and advice sought from Natural England. Depending on the circumstances of the works at licence form Natural England may be required to allow renovation works to continue.

Additional Measures or Enhancement Recommended

- 5.18 Moderate foraging and commuting opportunities were identified for bats within the site. As such, a Sensitive Lighting Strategy should be implemented to avoid adverse impacts on any bats which may occasionally use the area that works effectively with the final design layout, i.e. light shielding to avoid the main showroom display facing west at the north-west aspect of the site. Any sensitive lighting strategies will be designed in line with the Bats and Artificial Lighting at Night guidance²¹.
- 5.19 The landscaping proposals should be designed to increase foraging provision within the site and maintain and enhance connectivity into the wider landscape such as installation of insect hotels/boxes, insect friendly planting and linear areas of vegetation.
- 5.20 It is recommended that a bat box plan is designed to mitigate for the loss of the building modifications. The boxes can be installed on retained suitable retained trees, on a pole and in new buildings within the proposed development. Due to the features within the proposed development plan, in-built building bat boxes nearby tree lines and hedgerows would make the best option with tree hanging bat boxes in the south-west corner of the site.

Birds

- 5.21 Native nesting birds, their nests and eggs are protected under the Wildlife & Countryside Act 1981 (as amended) from damage and destruction, from the time of nest construction to fledging of the young.
- 5.22 In addition, certain species, such as barn owl, are protected from disturbance whilst breeding under Schedule 1 of the Wildlife & Countryside Act 1981 (as amended).

Avoidance and Mitigation Required

- 5.23 Works should be completed outside of the nesting period (typically taken to be February to September inclusive) to avoid damage and destruction of any active nests and eggs.
- 5.24 In addition, nesting bird checks prior to vegetation clearance must be carried out, if works are undertaken during the breeding bird season. This should be carried out no more than 24 hours prior to the works by an experienced ecologist, to confirm that no active nests are present.

²¹ Institute of Lighting Professionals and Bat Conservation Trust (2023) Guidance Note GN08/23 Bats and Artificial Lighting at Night

- 5.25 In the event that any nesting bird species are identified, works within the surrounding area must halt until the chicks have fledged. The required radius of the exclusion area will depend on the species found nesting and the context of the nesting location.
- 5.26 It is recommended that a bird box plan is designed to mitigate for the loss of habitat. The boxes can be installed on retained suitable trees, on a pole and in new buildings within the proposed development.

Additional Measures or Enhancement Recommended

- 5.27 It is recommended that suitable habitat for nesting birds, including scattered trees and scrub are retained under the proposals, where possible. Any loss of suitable foraging and nesting habitat should be compensated for within a soft landscaping plan to ensure no net loss in suitable foraging and nesting habitat within the site.

Badger

- 5.28 Badgers are protected under the Protection of Badgers Act 1992²² from killing, injury and certain acts of cruelty. Their setts are also protected from damage, obstruction or destruction.

Avoidance and Mitigation Required

- 5.29 Standard Reasonable Avoidance Measures (RAMs) must be implemented to ensure no harm or disturbance occur to foraging or ranging badgers as a result of the works. The following best practice measures should be undertaken to reduce entrapment and mortality risk during the site construction works:
- The site supervisor or other nominated site-staff representative from the construction team will be appointed whose role will be to ensure works adhere to these RAMs and that a suitably qualified ecologist is contacted if further advice is required.
 - Access into and out of the working area will be along agreed routes only. Machinery and vehicles will not be permitted to move outside of the agreed access routes and working areas.
 - Appropriate speed limits will be enforced, and signage installed on site to mitigate against potential collision impacts during the construction phase.
 - Protective fencing should be placed at the edge of the areas of retained scrubland and woodland where badger setts to prevent encroachment during construction activities.

²² Protection of Badgers Act 1992 c. 51 <https://www.legislation.gov.uk/ukpga/1992/51/>

- Excavations will be boarded up or suitably covered at night. Where this is not practicable, a ramp will be provided (at an angle of no more than 45°) to allow any animal that may become trapped to escape.
- Any excavations will be inspected by the ECoW, site supervisor or nominated site-staff representative for the presence of any holes before they are filled in.
- Pipes stored on site should be capped or if caps are not available, stored vertically to prevent entrapment.
- Any spoil piles present on site will be covered or compacted to discourage being used by badgers for sett building. Stored soils should be checked daily by site staff to ensure there has been no attempted creation of new mammal holes; if any new mammal holes are identified advice from the ecologist must be sought.
- Any chemicals or pollutants used or created by the development must be stored off the ground or in protected and fenced areas to prevent badger access and must be disposed of correctly according to COSHH regulations.
- Night-time working will be avoided if possible, including within the hour before dusk and an hour after dawn.

5.30 In the event that contractors encounter any badgers or badger setts during construction of the site, works must cease immediately and advice from a suitably qualified ecologist must be sought.

5.31 If works on site do not commence within 6 months of the date of the habitat survey (29th May 2024), prior to site works, a pre-commencement badger survey must be undertaken to provide up to date information on any badger activity on the site and determine whether any setts have been created since this survey.

Hedgehog

5.32 Hedgehogs are S41 species of principal importance.

Avoidance and Mitigation Required

5.33 Measures should be outlined within a protected/priority species PWMS to ensure no harm or injury to these species if present on site.

5.34 Prior to commencement of works, any removal of habitat suitable for sheltering and hibernation hedgehogs should be removed by hand by the ECoW. This will include features such as log piles, piles of tree branches and brash piles, to minimise the risk of harm or injury to hedgehogs or other small mammals, during vegetation clearance.

5.35 Clearance of woodland, scrub and grassland habitat will be undertaken using a staged approach, as outlined for common amphibians. This methodology will ensure no harm or injury to hedgehog during vegetation clearance, if present during the works.

- 5.36 Work likely to cause disturbance during hibernation – for example removal of hibernation habitats such as scrub – should avoid the period November to March. If this cannot be avoided and a hibernating hedgehog is found, the hedgehog should be moved to a hibernation box placed in a safe place and lined with straw.

Additional Measures or Enhancement Recommended

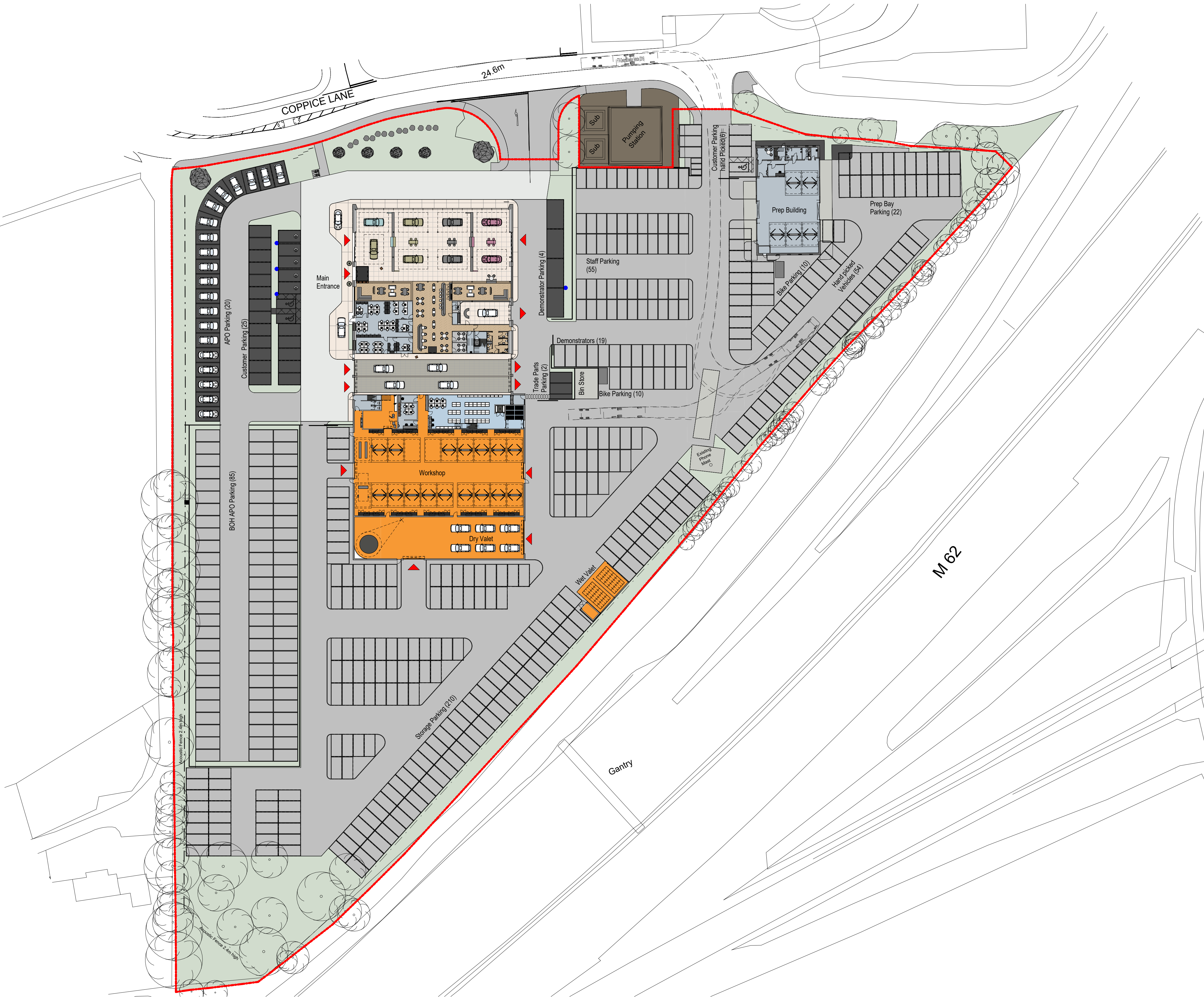
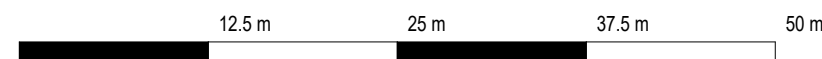
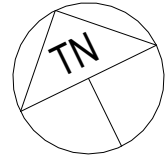
- 5.37 Additional enhancement could be provided through the creation of log/brush piles in undisturbed areas of the completed development, utilising material generated from vegetation clearance. In addition, hedgehog boxes should be installed. The area best suited for these features would be within the south-west corner of the site.

6.0 Conclusions

- 6.1 Habitats within the site are generally of low ecological value. Habitats of higher value include scattered broad-leaved trees and dense scrub. The majority of the habitats will be lost to facilitate the proposed development and recommendations for habitat retention and creation will be provided within the BNG Design Stage Report (TEP Ref: 10523.003).
- 6.2 There may be a requirement to consult with your local planning authority with regards to the nature of the proposed development and the IRZ the site is stationed within to assess whether consultation with Natural England is required.
- 6.3 Any works carried out by contractors should be accompanied by a Risk Assessment Method Statement (RAMS) and potential impacts upon protected or notable species should be mitigation with using the production of a Precautionary Working Method Statement (PWMS) for amphibians, bats, birds, badger and hedgehog. This will include sensitive timing of works and precautionary working measures.
- 6.4 It is recommended that areas of suitable terrestrial habitat for amphibians, bats, birds and hedgehog are retained wherever possible and hedgehog boxes and / or brash / log piles are recommended for the south-west corner of the site.
- 6.5 An Invasive Non-Native Species (INNS) Management Plan must be followed to remove the Himalayan balsam and cotoneaster within the site.
- 6.6 Landscaping works should be completed outside of the nesting period (typically taken to be February to September inclusive) to avoid damage and destruction of any active nests and eggs. If works are undertaken during the breeding bird season, a pre-commencement nesting bird checks prior to vegetation clearance must be carried out no more than 24 hours prior to the works by an experienced ecologist, to confirm that no active nests are present.
- 6.7 Building B1 was found to not have roosting bats during the time of survey, as such mitigation measures and licenses from Natural England are not required. Renovation works should be undertaken between November and March to minimise the risk of harm or injury to any potential roosting bats where practicable within development works. It is also recommended that in-built bat and bird boxes are installed into the new buildings and the proposed preparation building (B1) to mitigate for the loss of habitats.
- 6.8 Retained trees within and adjacent to the site should be protected from accidental damage during site clearance and construction, in accordance with BS5837:2012 Trees in relation to design, demolition and construction. Tree T1 is to be retained, and undisturbed with direct lighting and have at least a 3m buffer space of retained soft scaping between any development works.
- 6.9 A Sensitive Lighting Strategy should be implemented of which includes light shielding to avoid the main showroom display that faces west near the line of broad-leaved trees.

- 6.10 If works have not started within 6 months of the initial habitat survey, a pre-commencement badger walkover should be conducted to see if any evidence of badger presence is on-site.

Annex A: Development Proposals



Site Area

24527.01 m²

Key:

EV Charging Station

Site Application Boundary

Vehicle Display Areas, Customer Parking and Demonstrator Vehicles
- 200x100mm charcoal block paving with silver grey demarcation blocks

Pedestrian Walkway
Front of House Porcelain Tile

Arrival Drive
New block pavers to form arrival driveway.

Vehicle Circulation Areas
New tarmac finish, colour to be black

Soft Landscaping
Landscape scheme to be prepared post planning.

Self finished concrete

12	Draft Planning Issue	JR	-	27/09/24
11	Presentation hall extended	JR	-	06/09/24
10	Layout amended to Client's comments	AP	-	30/08/24
9	Reduced scope of works adopted	JR	-	20/08/24
No.	Description	Prep	Chk	Date

Do not scale this drawing
All given dimensions are in millimetres
Architect to be notified of discrepancies in figured dimensions
Contractors must check all dimensions from site

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Project
Hatfield JLR Knowsley

Title
Proposed Site Plan

Job No.
6329_01

Drawing No.
101

Revision
12

Status: **DRAFT**

Auth: JR Date: Sept 2024

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Annex B: Target Notes

Target Notes

The habitat survey was undertaken on 29th May 2024, which is in the optimal period. Species lists recorded represent only those species recorded at the time of survey.

KEY to DAFOR Scale of Abundance

Value	Cover	Notes
D = Dominant	>75%	Rarely used in practice
A = Abundant	51-75%	Very common in many parts of the target note area
F = Frequent	26%-50%	Several plants in several locations across target note area
O = Occasional	11-25%	Several plants in a few locations, or vice versa
R = Rare	1-10%	Small number of individuals, scattered or clustered within target note area/ site

Survey 10523-1. Hatfield JLR, Knowsley

Target Note TN1

Modified neutral grassland.

<i>Agrostis stolonifera</i>	Creeping Bent	F
<i>Juncus effusus</i>	Soft Rush	F
<i>Lupinus x regalis</i>	Lupin	F
<i>Silene dioica</i>	Red Campion	F
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	O
<i>Anthriscus sylvestris</i>	Cow Parsley	O
<i>Arrhenatherum elatius</i>	False Oat-grass	O
<i>Artemisia vulgaris</i>	Mugwort	O
<i>Bellis perennis</i>	Daisy	O
<i>Cirsium arvense</i>	Creeping Thistle	O
<i>Dactylis glomerata</i>	Cock's-foot	O
<i>Dipsacus fullonum</i>	Teasel	O
<i>Epilobium sp.</i>	Willowherb species	O
<i>Equisetum sp.</i>	Horsetail species	O
<i>Galium aparine</i>	Cleavers	O
<i>Juncus effusus</i>	Soft rush	O
Orchidaceae sp	Orchid species	R
Apiaceae sp.	Umbellifer species	R

Target Note TN2

Area of hardstanding with ephemeral grass around the edges.

<i>Achillea millefolium</i>	Yarrow	O
<i>Buddleja davidii</i>	Buddleia	O
<i>Cerastium fontanum</i>	Common Mouse-ear	O
<i>Dactylis glomerata</i>	Cock's-foot	O
<i>Dipsacus fullonum</i>	Teasel	O
<i>Festuca rubra</i>	Red Fescue	O
<i>Geranium robertianum</i>	Herb-Robert	O
<i>Lapsana communis</i>	Nipplewort	O
<i>Moss sp.</i>	Moss species	O
<i>Plantago lanceolata</i>	Ribwort Plantain	O
<i>Plantago major</i>	Greater Plantain	O
<i>Poa pratensis</i>	Smooth Meadow-grass	O
<i>Rubus fruticosus agg.</i>	Bramble	O
<i>Festuca sp.</i>	Fescue species	R
<i>Fragaria vesca</i>	Wild Strawberry	R

Target Note TN3

Ephemeral body of water, approx. 10cm deep towards outer hardstanding. A couple of species of aquatic plants using it.

<i>Artemisia vulgaris</i>	Mugwort	O
<i>Epilobium palustre</i>	Marsh Willowherb	O

Target Note TN4

Continuous scrub and bramble scrub with a small amount of Himalayan Balsam in a small area.

<i>Rubus fruticosus agg.</i>	Bramble	D
<i>Cornus sanguinea</i>	Dogwood	O
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Epilobium sp.</i>	Willowherb species	O
<i>Heracleum sphondylium</i>	Hogweed	O
<i>Hypericum sp.</i>	St John's-wort	O
<i>Poa pratensis</i>	Smooth Meadow-grass	O
<i>Quercus robur</i>	English Oak	O
<i>Rosa canina agg.</i>	Dog Rose	O
<i>Impatiens glandulifera</i>	Himalayan Balsam	R
<i>Prunus avium</i>	Wild Cherry	R

Target Note TN5

Scattered broad-leaved trees around modified neutral grassland. Includes young alder and oak species.

<i>Quercus robur</i>	English Oak	A
<i>Alnus glutinosa</i>	Alder	F

Target Note TN6

Scattered, mature trees in the hedgerow, H1, along the western boundary.

<i>Alnus glutinosa</i>	Alder	F
<i>Populus sp.</i>	Poplar species	O

Target Note TN7

Broad-leaved woodland in the south-west portion of the site.

<i>Agrostis capillaris</i>	Common Bent	A
<i>Alnus glutinosa</i>	Alder	A
<i>Galium aparine</i>	Cleavers	F
<i>Salix fragilis</i>	Crack Willow	F
<i>Solidago virgaurea</i>	Goldenrod	F
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	O
<i>Cirsium arvense</i>	Creeping Thistle	O
<i>Fraxinus excelsior</i>	Ash	O
<i>Holcus lanatus</i>	Yorkshire-fog	O
<i>Impatiens glandulifera</i>	Himalayan Balsam	O
<i>Juncus effusus</i>	Soft Rush	O
<i>Lupinus x regalis</i>	Lupin	O
<i>Poa trivialis</i>	Rough Meadow-grass	O
<i>Ranunculus repens</i>	Creeping Buttercup	O
<i>Rumex acetosa</i>	Common Sorrel	O
<i>Taraxacum officinale agg.</i>	Dandelion	O
<i>Dactylorhiza sp.</i>	Marsh-orchid	R
<i>Salix caprea</i>	Goat Willow	R

Target Note TN8

Scattered broad-leaved trees in the southern aspect of the site. Mature sycamores in southern boundary.

<i>Acer pseudoplatanus</i>	Sycamore	R
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Target Note TN9

Modified neutral grassland, possibly amenity prior and now overgrown with some scattered scrub. Cotoneaster in places.

<i>Achillea millefolium</i>	Yarrow	A
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	A
<i>Holcus lanatus</i>	Yorkshire-fog	A
<i>Arrhenatherum elatius</i>	False Oat-grass	O
<i>Artemisia vulgaris</i>	Mugwort	O
<i>Calystegia sepium</i>	Hedge Bindweed	O
<i>Cotoneaster horizontalis</i>	Cotoneaster horizontalis	O
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Festuca rubra</i>	Red Fescue	O
<i>Lotus corniculatus</i>	Bird's-foot Trefoil	O

Plantago lanceolata

Ribwort Plantain

O

Target Note TN10

A strip of broad-leaved woodland with scrub understory along the south-east boundary.

<i>Salix fragilis</i>	Crack Willow	D
<i>Crataegus monogyna</i>	Hawthorn	A
<i>Rubus fruticosus agg.</i>	Bramble	A
<i>Aegopodium podagraria</i>	Ground-elder	F
<i>Prunus spinosa</i>	Blackthorn	F
<i>Aesculus hippocastanum</i>	Horse-chestnut	O
<i>Betula pendula</i>	Silver Birch	O
<i>Cornus sanguinea</i>	Dogwood	O
<i>Populus alba</i>	White Poplar	O
<i>Quercus robur</i>	English Oak	O
<i>Geranium molle</i>	Dove's-foot Cranesbill	O
<i>Hordeum jubatum</i>	Foxtail Barley	O
<i>Jacobaea vulgaris</i>	Common Ragwort	O
<i>Medicago lupulina</i>	Black Medick	O
<i>Poa trivialis</i>	Rough Meadow-grass	O
<i>Ranunculus acris</i>	Meadow Buttercup	O
<i>Ranunculus repens</i>	Creeping Buttercup	O
<i>Rumex crispus</i>	Curled Dock	O
<i>Rumex obtusifolius</i>	Broad-leaved Dock	O
<i>Stachys sylvatica</i>	Hedge Woundwort	O
<i>Taraxacum officinale agg.</i>	Dandelion	O
<i>Trifolium sp.</i>	Trifolium sp.	O
<i>Urtica dioica</i>	Nettle	O
<i>Vicia sativa</i>	Common Vetch	O
<i>Arctium minus</i>	Lesser Burdock	R
<i>Cirsium vulgare</i>	Spear Thistle	R
<i>Hypericum perforatum</i>	Perforate St John's-wort	R
<i>Leucanthemum vulgare</i>	Oxeye daisy	R
<i>Rubus idaeus</i>	Raspberry	R
<i>Solanum dulcamara</i>	Bittersweet	R
<i>Trifolium pratense</i>	Red Clover	R
<i>Tussilago farfara</i>	Colt's-foot	R
<i>Vicia sp.</i>	Vetch species	R

Target Note H1

H1. Native intact hedgerow.

<i>Crataegus monogyna</i>	Hawthorn	D
<i>Anthriscus sylvestris</i>	Cow Parsley	F
<i>Galium aparine</i>	Cleavers	F

<i>Hedera helix</i>	Ivy	F
<i>Poa trivialis</i>	Rough Meadow-grass	F
<i>Rubus fruticosus agg.</i>	Bramble	F
<i>Agrostis capillaris</i>	Common Bent	O
<i>Alnus glutinosa</i>	Alder	O
<i>Lolium perenne</i>	Perennial Ryegrass	O
<i>Poa pratensis</i>	Smooth Meadow-grass	O
<i>Prunus laurocerasus</i>	Cherry Laurel	O
<i>Rubus fruticosus agg.</i>	Bramble	O
<i>Rumex crispus</i>	Curled Dock	O
<i>Trifolium pratense</i>	Red Clover	O
<i>Urtica dioica</i>	Nettle	O
<i>Dipsacus fullonum</i>	Teasel	R
<i>Quercus robur</i>	English Oak	R
<i>Rosa canina agg.</i>	Dog Rose	R
<i>Silene dioica</i>	Red Campion	R
<i>Taraxacum officinale agg.</i>	Dandelion	R
<i>Vicia sativa</i>	Common Vetch	R

Drawings

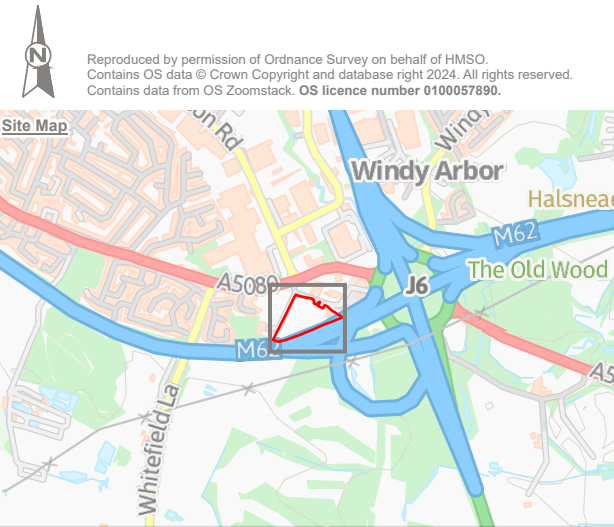
Drawing 1: Phase 1 Habitat Survey (Ref G10523.008)



KEY

- Site boundary
- Target note
- Cotoneaster horizontalis
- Himalayan balsam
- Scattered scrub
- Scattered broad-leaved tree
- Broad-leaved tree with at least one potential roost feature
- Native intact hedge
- Fence
- Semi-natural broad-leaved woodland
- Dense/continuous scrub
- Modified neutral grassland
- Waterbody
- Building
- Hardstanding

Note:
The locations of habitats and habitat features are indicative.



Rev	Description	Drawn	Approved	Date

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Project
Hatfields JLR, Tarbock

Title
Phase 1 Habitat Survey

Drawing Number
G10523.008

Drawn	Checked	Approved	Scale	Date
ET	SP	AL	1:1,000 @ A3	30/09/2024

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