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Preliminary Ecological Appraisal

April 2024

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70 Ringley Road West
Radcliffe
Manchester
M26 1DN

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Executive Summary

As part of a proposed planning application regarding 70 Ringley Road West in Radcliffe, Ecological Consultants carried out a Preliminary Ecological Appraisal (PEA) in March 2024. The PEA was commissioned by Baltic Planning and Development; proposals are understood to entail the clearance of the site including the felling of trees and demolition of the existing building, followed by the erection of four new detached dwellings with associated landscaping and access.

As a part of this PEA, an assessment of habitat conditions was undertaken to inform a Biodiversity Net-gain Assessment, which will be produced as an annexe to this report.

Extensive findings, conclusions and recommendations are presented throughout the report; however, the reader should be aware of the following further surveys and key recommendations.

Key recommendations:

Vegetation

Two INNS were identified within the site boundary in the form of wall cotoneaster and Himalayan cotoneaster. Taking into account the clearance that will take place onsite, the proposals carry a high risk of spreading these species off site during the construction phase.

Whilst it is not an offence for these species to be present on a site, it is an offence to spread or allow them to spread; to prevent incidental spread of these species during the proposed works it is recommended that a precautionary working method statement with appropriate biosecurity protocol is instated prior to commencement of site works.

Tree felling had occurred onsite prior to the survey, with further felling likely for the development.

*It is recommended that the planting of UK native trees such as pedunculate oak (*Quercus robur*) or ash (*Fraxinus excelsior*) takes place onsite at a ratio of 2:1 to the number that were felled, to compensate for the loss; suitable species for native landscaping have been provided in **Appendix III**.*

Bats

Based upon the findings of the desktop and field survey, covered through sections 5.0 – 6.0 of the report and supported by **Appendix I**, 70 Ringley Road West is duly categorised as pertaining to '**Moderate**' bat roost suitability, in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023).

Table 7.2. Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).

Low roost suitability or PRF-I	Moderate roost suitability	High roost suitability or PRF-M
One survey visit. One dusk emergence survey ^a (structures). No further surveys required (trees).	Two separate dusk emergence survey visits ^b .	Three separate dusk emergence survey visits ^b .

*It is recommended that **two dusk emergence surveys** are conducted at the site within the season of bats (May – August, extending into September in some cases), in order to establish*

*if / how the building is being used by bats, and if so, identify the species present, abundance, roost locations and flight lines around the site following emergence. **Two surveyors** would be required to cover the potential roosting features as described for each survey, and the surveys must be spaced a minimum of three weeks apart in accordance with current BCT guidance.*

Breeding birds

Regarding wider breeding bird species, there are a range of viable nesting platforms within the site boundary, including the trees and scrub, which could provide suitable nesting locations within the nesting bird season of March – August, inclusive.

Given that all birds are protected when at the nest, it is recommended that any vegetation clearance on site or pond works are carried out outside of the breeding bird season (March – August inclusive). For any works within the breeding bird season, a pre-commencement check of any impacted habitats able to support nesting birds (inclusive of the hedgerow, trees, scrub and pond) will need to be carried out by a suitably qualified ecologist / ornithologist in order to determine whether or not active nests are present. This will need to be carried out within 48 hours or less prior to works commencing.

Other terrestrial mammals

The site provides suitable habitat for occasional use by hedgehogs, and as such this species has the potential to be impacted upon by the works.

See Section 7.0 for further information on Reasonable Avoidance Measures (RAMs) recommended to be implemented during development works.

Biodiversity enhancement:

As a means of improving biodiversity value / enhancing the site any new landscaping should aim to incorporate majority use of native species as opposed to non-native exotic species which offer significantly fewer benefits to our native fauna. Suitable species for native landscaping have been provided in **Appendix III**. Examples of suitable measures in respect of faunal species are also provided in **Appendix III**.

Table of Contents

1.0	Introduction & Scope
2.0	Legislation & Policy
3.0	Methodology
4.0	Limitations
5.0	Desk Study Results
6.0	Field Study Results
6.1	Habitat Survey
6.2	Vegetation
6.3	Bats
6.4	Breeding Birds
6.5	Other Terrestrial Mammals
6.6	Herpetofauna
6.7	Invertebrates
7.0	Conclusions & Recommendations
8.0	Bibliography

Appendix I: Site Photographs

Appendix II: Botanical Species List

Appendix III: Biodiversity Enhancement: General Recommendations

Appendix IV: UK Habitats Map

External Appendices

- PR-0096-24 70 Ringley Road West – Biodiversity Net Gain Assessment
- PR-0096-24 70 Ringley Road West – The Small Sites Metric Statutory Biodiversity Metric Calculation Tool

1.0 Introduction & Scope

- 1.1 As part of a proposed planning application regarding 70 Ringley Road West in Radcliffe, Ecological Consultants carried out a Preliminary Ecological Appraisal (PEA) in March 2024. The PEA was commissioned by Baltic Planning and Development; proposals are understood to entail the clearance of the site including the felling of trees and demolition of the existing building, followed by the erection of four new detached dwellings with associated landscaping and access. See **Figure 1.1** for a draft proposed site plan.

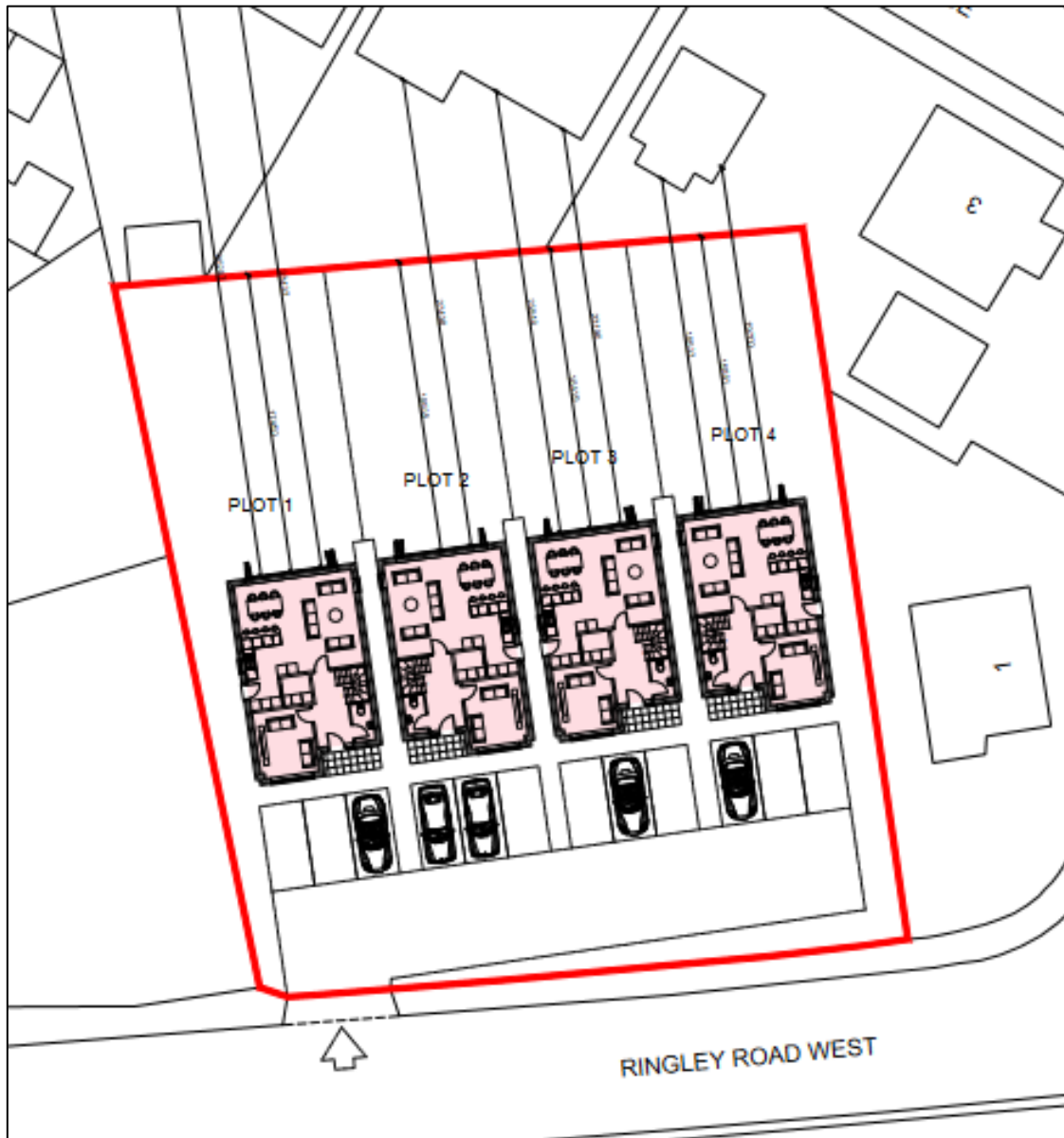


Figure 1.1 – Draft proposed site plan (© Revival Architecture)

- 1.2 As a part of this PEA, an assessment of habitat conditions was undertaken to inform a Biodiversity Net-gain Assessment, which will be produced as an annexe to this report (see **External Appendices**).
- 1.3 As part of the Local Planning Authorities (LPA) planning policies and obligations to the Planning Framework, ecological surveys are generally required prior to planning permission being granted, particularly where protected / priority habitats or species are, or may be, present, and where these species have the potential to be impacted by the proposals for which the applicant seeks consent.

- 1.4 The PEA was carried out in accordance with the 'Guidelines for Preliminary Ecological Appraisal, 2nd Edition' (CIEEM, 2017) and all associated 'CIEEM Competencies for Species Survey (CSS)', whilst this report has been presented in accordance with the British Standard 42020:2013 Biodiversity – Code of Practice for Planning and Development.

Aims & Objectives

- 1.5 The appraisal aims to ascertain the baseline nature of the site and, where possible, obtain information on any priority wildlife habitats, or species, that may be present and if so determine if they will be affected by the proposals. The survey, therefore, includes the following objectives:
- Gather and present baseline ecological information on site/off site (as necessary) within a suitable report,
 - Identify, measure and map habitats using UK Habitat Classification – Habitat Definitions Version 2.0 (2023) habitats,
 - Identify any likely ecological constraints associated with the proposals for the site (i.e. the presence of protected / priority habitats or species that exist within the confines of the application boundary, or zone of influence (ZOI),
 - Identify measures likely to be required in line with the mitigation hierarchy (i.e. impact avoidance > minimisation > mitigation > compensation),
 - Identify additional survey requirements,
 - Aim to achieve no 'net loss' of habitat biodiversity units, in accordance with BS 8683:2021 'Process for designing and implementing biodiversity net gain',
 - Identify enhancement opportunities for biodiversity in line with national and local planning policy.
 - Set out any requirements for post-development monitoring, management, or other commitments, and how they can be secured, where required.
- 1.6 As a functioning component of this specific ecological appraisal:
- Habitats on site were identified, measured and mapped using the UK Habitat Classification – Habitat Definitions Version 2.0 (2023),
 - Any buildings and trees, where present, were subject to preliminary roost assessment (PRA) for Bats and scored against the bat roost suitability parameters defined in the Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023).
- 1.7 This report therefore provides important baseline information as derived from the diurnal appraisal process outlined above and recommends any necessary additional surveys, or work, where applicable, to provide a conclusive ecological impact assessment.
- 1.8 The Applicant should be aware then that if during the appraisal:
- The application site/area was found to be suitable for any European Protected Species (EPS), otherwise protected, or priority habitats / communities / species, or,
 - Signs of use by particular protected species were found, or suspected, or,
 - Seasonal constraints significantly limit the gathering of ecological information to arrive at an accurate conclusion on which the planning application can proceed;

Then more detailed surveys may be recommended where necessary, to allow the ecologist to arrive at a conclusive impact assessment.

- 1.9 If protected species were subsequently found either during appraisal or during detailed further surveys and / or may be affected by the development proposals, then a European Protected Species Mitigation Licence (EPSML) may be required to proceed with the development.
- 1.10 Where more detailed surveys are recommended by the Ecologist, following ecological appraisal, then Local Planning Authorities (LPAs), on the advice of their ecological advisors, may not grant permission until such time that all relevant material information is gathered in accordance with their obligations to the legislature.
- 1.11 Protected / priority species omitted from this report have been discounted due to negating factors including obvious absence / isolation of suitable habitats, and / or distributional aspects negating the necessity to survey for them, and/or the proposed works were not considered to impact the species or encroach on areas where the species may be present.

2.0 Legislation & Policy

2.1 The legislature considered for the purposes of this report includes the following:

- Biodiversity Net Gain: Good practice principles for development (2019),
- BS 42020:2013 Biodiversity – Code of Practice for Planning and Development (2013),
- Conservation of Habitats and Species Regulations (2017) (as amended),
- Countryside Rights of Way (CRoW) Act (2000),
- Natural Environment and Rural Communities (NERC) Act (2006),
- National Planning Policy Framework (2021) (as last revised),
- Protection of Badgers Act (1992),
- The Hedgerow Regulations (1997),
- The Invasive Alien Species (Enforcement and Permitting) Order 2019
- Town and Country Planning Act (1990),
- Wild Mammals Protection Act (1996),
- Wildlife and Countryside Act (1981) (as amended).

2.2 These acts entail relevance to both protected and invasive species. The degree of protection offered to taxa provided within existing UK and EU legislature often varies depending on species / group, for example, some species may purely be protected during one of its life stages (e.g. common species of breeding bird whilst nesting / with eggs / young); some species may receive full protection within the EU, whereas others may be protected solely on a national basis (e.g. grass snake).

2.3 **Table 2.1** contains appropriate legislature to each species / group specifically respective to the site and provides the relevance of said legislation.

Table 2.1 – Relevant legislation

Species Group / Species	Relevant Legislation	Level of Protection
Badger	Protection of Badgers Act (1992), Wildlife and Countryside Act (1981) (as amended)	<u>Illegal to:</u> Wilfully kill, injure or take a badger (or attempt to do so), cruelly ill-eradicate a badger, dig for a badger, Intentionally or recklessly damage or destroy a badger sett or obstruct access to it, cause a dog to enter a badger sett, disturb a badger when it is occupying a sett.
Bats	CRoW Act (2000) Conservation of Habitats and Species Regulations (2017) (as amended) Wildlife and Countryside Act (1981) (as amended)	All British bats and their roosts are afforded full protection from damage/destruction and bats may not be injured/killed/taken at any life stage. Once identified, roosts are protected whether the bat is in occupation or not.

Birds	CRoW Act (2000) Wildlife and Countryside Act (1981) (as amended)	All wild birds (with only minor exceptions) and their nests whilst being built or containing eggs or dependant young are protected. Birds listed on Schedule 1 Wildlife & Countryside Act (1981) (as amended) are afforded a greater level of protection.
Great Crested Newt (GCN)	CRoW Act (2000) Conservation of Habitats and Species Regulations (2017) (as amended) Wildlife and Countryside Act (1981) (as amended)	Great Crested Newts (GCN's) are fully protected from disturbance, killing, injuring or possession at any life stage. Confirmed breeding ponds and resting places are afforded the same protection.
Invasive Plant Species	Wildlife and Countryside Act (1981) (as amended) The Invasive Alien Species (Enforcement and Permitting) Order 2019	Species listed within Schedule 9/Schedule 2 as invasive, including Japanese knotweed (<i>Reynoutria japonica</i>) and Himalayan balsam (<i>Impatiens glandulifera</i>), for example, carry notoriety regarding development. The Acts make it an offence for any person to grow or cause to grow in the wild any plants listed as invasive.
Reptiles	Conservation of Habitats and Species Regulations (2017) (as amended) – SL/SS Wildlife and Countryside Act (1981) (as amended) CRoW Act (2000)	All native reptile species have some degree of protection in the UK, through section 8(1) and (5) (specified in Schedule 5) of the Wildlife and Countryside Act 1981 (as amended). Sand lizard (SL) and smooth snake (SS) are species of principal importance however with greater protection(s).

Relevant Policy

- 2.4 Guidance for Local Authorities: Extract from Office of the Deputy Prime Minister – Circular 06/2005:

“It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision”.

- 2.5 Paragraph 180 of the National Policy Planning Framework (as revised in September 2023) states:

When determining planning applications, local planning authorities should apply the following principles:

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

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

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

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

- 2.6 This national focus on the conservation of the natural environment is echoed in Policy EN6 of the Adopted Bury Unitary Development Plan (2022), which states:

“The Council will retain, protect and enhance the natural environment of the Borough, particularly in relation to areas of ecological, wildlife and geological importance.”

3.0 Methodology

- 3.1 As part of the ecological appraisal report, a desk-top and field-based study is conducted. Methods for both components of the appraisal are given below.

Desktop Study

- 3.2 Prior to a site visit, a desktop study was conducted using online resources to obtain information pertaining to any sites afforded statutory (e.g. SSSI) and non-statutory (e.g. LWS) designations for nature conservation within 2.0 kilometres of the site boundary. To do so, the Multi Agency Geographic Information for the Countryside (MAGiC – provided by DEFRA) was accessed to gather such information; this particular interactive mapping service was also used to locate any locally granted European Protected Species Mitigation Licenses (EPSML) and species records to further inform conclusions concerning such species in the context of the study site and its proposed development.
- 3.3 Historic satellite imagery was reviewed using sources such as Google Earth (© 2023/24) to help establish past use of the land and determine the nature of adjoining and extending habitats; such information aids in the understanding of how the site might interact with its surroundings ecologically and its value in that context, and how the development may impact at a wider scale.
- 3.4 In addition, the Bury Council ‘Search planning applications’ online function was utilised to help inform the desktop study by analysis of existing publicly accessible ecological survey results that have been carried out locally within the previous five years.
- 3.5 A commercial data request to the Local Environment Records Centre serving the area, in this case Greater Manchester Local Record Centre (GMLRC), has not been sourced at this time, with the combination of online EPSML data, extensive company records and the daytime survey data available to the ecologist considered to contain enough information in relation to the protected species likely to be present on site. **If, however, a data search is considered to be necessary by the Local Authority or advisory body to better inform the appraisal, a proportionate data search should be commissioned with results interpreted into the conclusions and recommendations of a re-issued / updated report.**

1) The Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK (CIEEM, 2020) states:

“It is generally expected that a desk study, including a data search, will be a key part of the ecological surveys or reports produced to inform a planning application. Freely available web-based sources of data and contextual information should always be used; in some cases, it may be acceptable to not undertake a data search with the LERC or other relevant NSS or local interest groups, for example:

- ii) Situations where the data search would be extremely unlikely to provide information needed to inform the assessment, due to the scale and location of the proposed development. The appropriateness of excluding a data search will need to be judged on a case-by-case basis as, in most situations, it will be essential to carry out such a search even if the development is very small or is likely to have a low impact. It can be very difficult to demonstrate that a data search would not have provided relevant information without obtaining and reviewing those data.*
- iii) In some cases for Preliminary Roost Assessments of buildings in low impact / small-scale scenarios, such as an extension to a residential property, loft conversions (full or partial), installation of Velux/dormer windows, single modern agricultural or similar building conversion or demolition; however, it should not be assumed that data searches are never*

required for such scenarios and this must be judged on a case by case basis and justified accordingly.

2) The Guidelines for Preliminary Ecological Appraisal, 2nd Edition (CIEEM, 2017) also states:

“Very occasionally it might be possible to carry out a robust PEA without obtaining LERC/NBDC/CEDaR data; this will usually only apply to low impact or small-scale projects (e.g. by virtue of size, extent, duration of works, magnitude and locality), and should be determined on a case-by-case basis.”

Field Survey

- 3.6 A daytime preliminary ecological appraisal was conducted on the 12th March 2024 in drizzly conditions (9°C), average wind 3/12 (Beaufort scale), average 100% cloud cover, by the following surveyor (see **Table 3.1**).

Table 3.1 – Site surveyor credentials

Name	Description of most relevant credentials
Mr. H. Mulligan Qualifying CIEEM	- Junior Ecologist with 2 years professional training and experience, - MBiolSci in Biological Sciences (Zoology), - Accredited agent on the Natural England Great Crested Newt: CL08 Class 1 licence (2018-34062-CLS-CLS) of Mr. M. Pritchard ACIEEM, - Accredited agent on the Natural England Class 2 bat license of Mrs K Wilding CEnv MIEMA ACIEEM (CLS-14227), - Holder of a FISC Level 3 (2023) (Botanical competency).

Floristic assessment

- 3.7 The survey followed the UK Habitat Classification Version 2.0 (UKHabs, 2023) methodology, which was introduced as the successor to the Joint Nature Conservation Committee (JNCC) Phase 1 Habitat Methodology standards (JNCC, 2010) in conjunction with the nationwide roll out of Biodiversity Net-gain. Survey techniques were also carried out with reference to the Chartered Institute of Ecology and Environmental Management (CIEEM) Technical Guidance Series “Guidelines for Preliminary Ecological Appraisal, 2nd Edition” (CIEEM, 2017).
- 3.8 During the survey walkover, botanical assemblages were assessed, and the land was inspected for the presence of red-listed (Stroh et al., 2014; Hodgetts, 2011), s.41 and LBAP species alongside specially protected species as listed under Schedule 8 of the Wildlife and Countryside Act (WCA) (1981) (as amended) and / or Schedule 5 The Conservation of Habitats and Species Regulations (2017) (as amended). Species nomenclature follows Stace, C. (2019) – definitive English names.
- 3.9 In addition to attributing ecological value to red-listed / BAP species, in accordance with existing CIEEM guidance, a geographic frame of reference is also adopted. Plant species and habitats may be recognised for their ecological value on a geographical scale which is adopted on a site-to-site basis (*International – National – Regional – County/Vice-County – Local*). For botanical species list compiled in full, see **Appendix II**.
- 3.10 In combination with assessing the area in relation to flora and habitats of conservation importance, the land was also assessed in relation to the presence of invasive non-native species (INNS) as listed under Schedule 9 (Part II) of the Wildlife and Countryside Act (1981)

(as amended) and Schedule 2 of The Invasive Alien Species (Enforcement and Permitting) Order 2019 (IASO).

Faunal assessment

- 3.11 During site walkover, direct presence and / or evidence of priority fauna encountered was documented, whilst in tandem the area was assessed for the potential to support the priority species discussed in **Section 6.0**. The walkover also aimed to identify any ephemeral pools or unmapped waterbodies.

Bats

- 3.12 Criteria for preliminary bat roost assessment are based upon the determinants given in the Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023) (see **Figures 3.1 – 3.3**).
- 3.13 The site was assessed for bats; a daytime bat walkover (DBW) was undertaken to observe, assess and record any habitats or features suitable for usage by bats, either as commuting, foraging or roosting provision. Wider connectivity to other habitats was also considered during the DBW.
- 3.14 Buildings and other permanent / semi-permanent structures (where present) were subject to a preliminary roost assessment (PRA), to identify potential areas which may be of value to bats and to determine evidence of use. This typically involves a systematic search of the external aspects of any structure(s), comprising an investigation of features known to be used by bats (for example roofing material, soffits, fascia, lead flashing hanging tiles) using a high-powered torch and close-focus binoculars, where necessary. An internal assessment of the structure(s) was also carried out, with the aid of a high-powered torch and endoscope, where necessary, to identify any evidence of bat use of a structure. Field signs of bats typically comprise bat droppings, urine splashing, fur-oil staining, incidental animal presence, dead specimens and / or the presence of prey items, such as moth wings.
- 3.15 Trees (where present) would be subject to a ground level tree assessment (GLTA) using equipment such as close-focus binoculars and a high powered-torch. Potential roost features (PRFs) can include woodpecker holes, rot holes, hazard beams, other vertical or horizontal cracks or splits in stems and branches, partially decayed lifted bark, knot holes, man-made holes, tear-outs, cankers in which cavities have developed, other hollows or cavities, including butt-rots, double-leaders forming compression forks with included bark, gaps between overlapping stems or branches, partially detached climbing species with stem diameters in excess of 50mm or pre-existing bat / bird boxes. These PRFs can then be determined as PRF-I or PRF-M, dependent on their suitability for individual / low numbers of bats or their capability to host multiple bats.
- 3.16 Factors considered during the preliminary roost assessment include:
- Practical experience of the surveyor,
 - Knowledge of bat species relevant to the site location and geographical range,
 - Nature of the immediate / surrounding habitat in relation to foraging opportunities,
 - Presence / absence of roost potential,
 - Value and types of roost potential, if present (i.e. – maternity, hibernation, transitional).

Table 4.1. Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.		
Potential suitability	Description	
	Roosting habitats in structures	Potential flight-paths 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 the 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; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ^b 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 hibernating bats ^c).	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions ^b and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions ^b 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 well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. 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). b For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance. c Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten <i>et al.</i>, 2016 and Jansen <i>et al.</i>, 2022). Common pipistrelle swarming has been observed in the UK (Bell, 2022 and Tomlinson, 2020) and winter hibernation of numbers of this species has been detected at Seaton Delaval Hall in Northumberland (National Trust, 2018). This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in prominent buildings in the landscape, urban or otherwise.		

Figure 3.1 – BCT guidelines extract

Table 4.2. Guidelines for assessing the suitability of trees on proposed development sites for bats, to be applied using professional judgement.	
Suitability	Description
NONE	Either no PRFs in the tree or highly unlikely to be any
FAR	Further assessment required to establish if PRFs are present in the tree
PRF	A tree with at least one PRF present

Figure 3.2 – BCT extract on tree roost suitability criteria

Table 6.2. Guidelines for categorising the potential suitability of PRFs on a proposed development site for bats, to be applied using professional judgement.	
Suitability	Description
PRF-I	PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats.
PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony.

Figure 3.3 – BCT extract on tree roost categorisation criteria

Breeding birds

3.17 The site was inspected for evidence of nesting and suitability for relevant species. Bird species observed and heard were recorded on site, and a search was made for nest material, or areas suitable for nesting – this can take the form of searching structures, woody vegetation, semi-aquatic vegetation such as reeds and / or ground flora. Elevations of any buildings or structures on site were inspected for evidence of birds that show a high dependency upon built structures, many of which are in a state of decline. These might include the following species for example (list non-extensive):

- House martin (*Delichon urbica*): Birds of Conservation Concern (BoCC) red status,
- House sparrow (*Passer domesticus*): BoCC red status,
- Starling (*Sturnus vulgaris*): BoCC red status,
- Swift (*Apus apus*): BoCC red status.

3.18 Additional to the site's capacity to support generally common species for breeding, the area was also subject to an assessment for wider capacity to support species with extra protection under Schedule 1 of the Wildlife & Countryside Act (1981) (as amended) and other priority species.

Other terrestrial mammals

3.19 The walkover included an assessment for the presence / suitability of badger (*Meles meles*), which includes signs of activity such as prints, hairs, digging, setts, 'runs' leading to and from a sett and the existence of latrines or 'snuffle' holes where badgers have foraged in the ground.

3.20 The site was also assessed for the presence / suitability of European hedgehog (*Erinaceus europaeus*) and other priority mammals.

Herpetofauna

- 3.21 During desktop assessment, a 250 metres radial search was undertaken from a site central grid reference in relation to the presence of ponds, ditches or other water bodies that may support great crested newt (GCN) (*Triturus cristatus*). The information gathered would then be used to aid in establishing if more detailed surveys are required.

NB: *English Nature's (now Natural England) Great Crested Newt Mitigation Guidelines (2001) states ponds within 500m of a proposed development site should be considered for their potential to support GCN, however, in some instances this distance may be reduced to 250m due to the presence of physical barriers and obstructions or based on the likely magnitude of impacts arising from the proposed development.*

- 3.22 Following current best practice considering the partial roll out of District Level Licencing (DLL) across England and based on likely effects, a proportionate assessment of the water bodies range within 250m from site has been applied. Where a development is anticipated to affect GCN the search can be extended up to 500m or more.
- 3.23 The site and surrounding habitats were also assessed relative to their potential to offer suitability for wider, generalist amphibians, in addition to great crested newt, for example common toad (*Bufo bufo*) and common frog (*Rana temporaria*).
- 3.24 The site and its surroundings were assessed for suitability for use by reptiles, with particular attention paid to features that could be used as basking areas (e.g. south-facing slopes), hibernation sites (e.g. banks, walls, leaf litter, piles of hardcore) and opportunities for foraging (e.g. rough grassland and scrub). Beebee & Griffiths (2000) state specific habitat preferences of common UK reptiles:
- Common lizard (*Zootoca vivipara*) use a variety of habitats from woodland glades to heaths, walls and pastures, as well as brownfield sites.
- 3.25 In assessment of a site for reptiles several important habitat characteristics are considered, outlined in **Table 3.2** below, as derived from the Reptile Habitat Management Handbook (Edgar, 2010).

Table 3.2 – Important habitat characteristics for reptiles

1. Location (in respect of species range)	7. Connectivity to good quality habitat
2. Vegetation structure	8. Prey abundance
3. Insolation	9. Refuge opportunity
4. Aspect	10. Hibernation habitat potential
5. Topography	11. Disturbance regime
6. Surface geology	12. Egg-laying site potential

Invertebrates

- 3.26 The application site was assessed for the presence of features that should be considered of high value to invertebrates. Several important features were considered, based on the assemblage descriptions provided within the Research Report "Surveying terrestrial and freshwater invertebrates for conservation evaluation" (NERR005, 2007), including but not limited to:
- Wood decay,
 - Early successional mosaic habitat,
 - Shaded ground layer,
 - Still and flowing water.

Quality Assurance

- 3.27 The results, conclusions and recommendations of this report are based on a number of factors i.e.
- Skills and experience of the surveyor,
 - Knowledge of flora and fauna relevant to the site location and geographical range,
 - Nature of the immediate and surrounding habitat in relation to shelter, foraging and commuting opportunities.
- 3.28 The results, conclusions and recommendations of this report have been assessed by Mrs. K. Wilding, Director of Tyrer Ecological Consultants Ltd, and her assessment concurs with the findings and recommendations of the surveyor Mr. H. Mulligan.

4.0 Limitations

- 4.1 This report does not contain a comprehensive list entailing the totality of botanical taxa on site. Species listed within **Appendix II** are recorded from a combination of the seasonal timing that the survey took place and botanical identification skills of the surveyor. Many plant species are only evident at certain times of the year; consequently, it is possible that some plant species may have gone undetected.
- 4.2 The optimal time of the year to carry out a preliminary ecological appraisal / UK Habitats survey is April to October; the survey was therefore carried out within a sub-optimal period. It is considered, however, that enough information was gathered during the diurnal appraisal on which to base ecological conclusions and recommendations, based on the habitat types encountered presenting no significant issues in such regard.
- 4.3 The survey took place outside of the active bat season and in the early stages of the breeding bird season; whilst sub-optimal, survey timing is not considered a constraint in this instance as evidence of both of these species is evident all year round and suitability can be assessed by a competent surveyor at any time of the year.
- 4.4 Due to the degradation of the building onsite, access to the loft space was not considered to be safe, with the floor almost entirely collapsed; however, a large portion of the loft space could be seen from ground level, allowing much of its character to be ascertained. This is therefore not considered to be a significant constraint to the findings of this report.
- 4.5 In considering possible survey constraints, no significant limitations were experienced that might adversely influence the results, conclusions, and recommendations of this report.

5.0 Desk Study Results

- 5.1 The site is located at the south-east of Outwood, a small civil parish on the south-western outskirts of Radcliffe, and comprises a derelict detached dwelling with front and rear gardens, several trees and access. The site has a total area of 0.15ha and is located approximately 9.5km north-west of Manchester city centre (see **Figure 5.1** below for location of the site within the surrounding landscape).



Figure 5.1 – Location of the site (red boundary) within the surrounding landscape © Google Earth Pro 2024

- 5.2 The immediate environment is suburban to the north and west, with detached and semi-detached dwellings and associated gardens and access roads. To the near east beyond neighbouring dwellings is a large open area of acidic grassland within Outwood Country Park, while to the south beyond Ringley Road West is an equestrian paddock that forms part of an extending patchwork of arable and farmland fields, lined by hedgerows.

Relevant planning history

- 5.3 No previous planning applications at the site were returned within the past ten years in a search of the address on the Bury Council planning portal search function. The most relevant application was approved in 2011 (Application number: 53595) and pertains to the creation of a new vehicular crossing at 82 & 84 Ringley Road approximately 135m to the west; no ecological documents were requested or provided as part of this application.

Designated sites

- 5.4 There are three designated sites for nature conservation within 2.0 kilometres of the site (see **Table 5.1** for details and **Figure 5.2** overleaf for a visual aid). The site also lies within the Impact Risk Zone (IRZ) for Ashclough Site of Special Scientific Interest (SSSI) at a distance of approximately 1.8km. Based upon the IRZ information available on MAGiC Maps, residential developments in the area of works are not at risk of impacting this SSSI, and as

such the proposals are unlikely to trigger the requirement for Natural England to be consulted regarding a Habitats Regulations Assessment.

Table 5.1 – Statutory designation types and reasons for designation within 2.0 kilometres buffer

Site name	Designation type	Interest features
Ashclough (1.8km to the west at closest point)	Site of Special Scientific Interest (SSSI) ¹	A 5.77ha site to the south-east of Bolton comprised of two sections of the steep south bank of the River Irwell, which represent the type and best available exposures for showing the Ashclough Marine Band, an important geological conservation site.
Chapelfield (0.5km to the east at closest point)	Local Nature Reserve (LNR) ²	A nature reserve located within Radcliffe hosting woodland and wetlands, supporting a range of birds, insects, waterfowl and other aquatic fauna.
Clifton Country Park (1.5km to the south-west at closest point)	Local Nature Reserve (LNR) ³	This 48.12 ha site is located on the urban fringe of Salford, featuring woodlands, meadows and numerous lakes, and supporting a wide variety of waterfowl and waders.

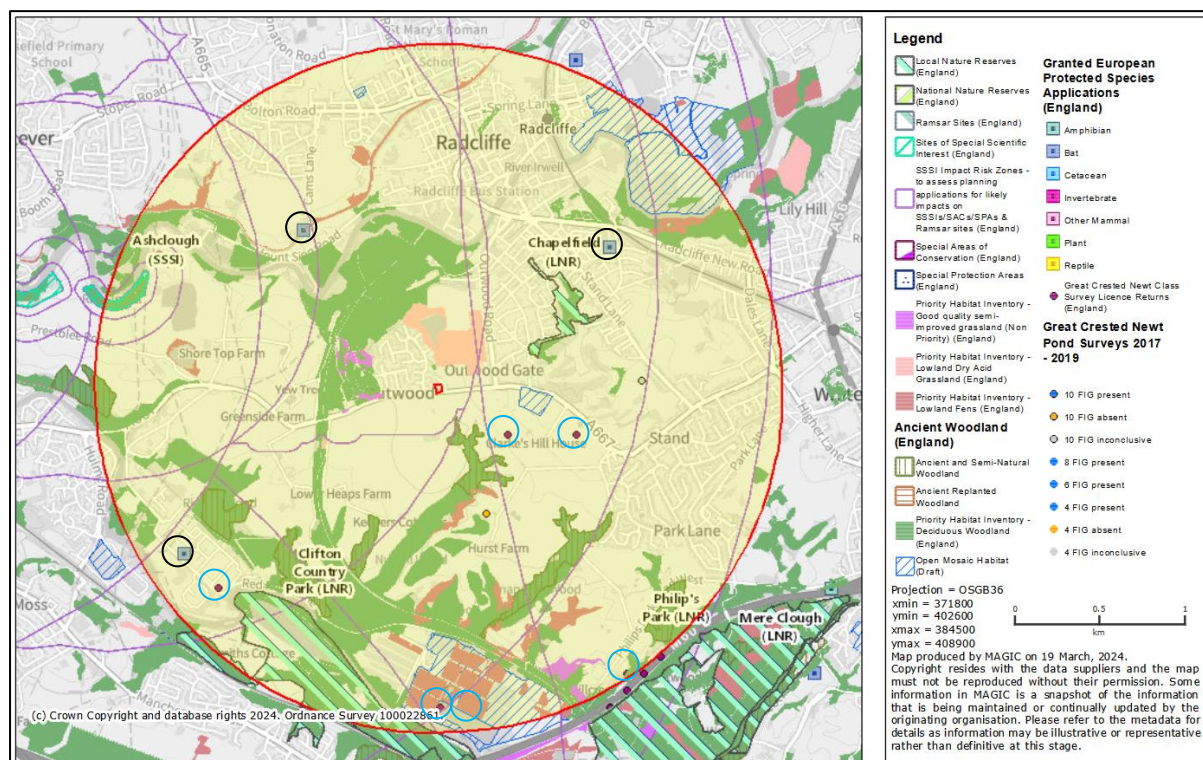


Figure 5.2 – Protected species, priority habitat and designated site data for the area within 2.0 kilometres of the application site, with granted EPSMLs circled in black and present GCN licence returns circled in blue © MAGIC Maps 2024

¹ Citation available here:

<https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003262>

² Citation available here:

<https://designatedsites.naturalengland.org.uk/SiteLNRDetail.aspx?SiteCode=L1481624>

³ Citation available here:

[herehttps://designatedsites.naturalengland.org.uk/SiteLNRDetail.aspx?SiteCode=L1122977](https://designatedsites.naturalengland.org.uk/SiteLNRDetail.aspx?SiteCode=L1122977)

Habitats

- 5.5 A number of UK priority habitats, as identified within the Priority Habitat Inventory layer on MAGiC Maps, occur within 2.0km of the application site; the majority of these priority habitats are located along the River Irwell both to the south and the north of the site, within and adjacent to the aforementioned designated sites, and within Outwood Country Park and Trail which dominates much of the north, west and south of the search radius. See **Table 5.2** for each of the priority habitats present.

Table 5.2 – Priority habitats located within 2.0km buffer

Habitat Type	Designation	Distance from site at nearest point
Ancient & Semi-natural Woodland	Ancient Woodland	0.2km south
Deciduous woodland	Priority Habitat Inventory	0.1km north
Good quality semi-improved grassland	Priority Habitat Inventory	0.3km west
Lowland dry acid grassland	Priority Habitat Inventory	0.1km north
Lowland fens	Priority Habitat Inventory	0.6km south
Open mosaic habitat	National Land Use Database	0.5km east

Vegetation

- 5.6 The site is positioned within a 'low' zone of the summarised botanical value map 2022⁴ on MAGiC Maps 2024, indicating that the area is of low botanical value due to absence/limited presence of Rare, Scarce and Threatened (RST) botanical species, or of species indicative of priority habitat.

Bats

- 5.7 An online search of MAGiC maps revealed that three European Protected Species Mitigation Licences (EPSMLs) for bats have been granted within a 2.0km radius of the application (see **Table 5.3** below for further information and **Figure 5.2** for a visual aid).

Table 5.3 – Bat EPSML data records from MAGiC Maps

Licence Number	Distance from site	Context (where relevant)
EPSM2009-1596	1.3km north-east	Destruction of common pipistrelle (<i>Pipistrellus pipistrellus</i>) breeding site
EPSM2013-6681	1.8km south-west	Destruction of common pipistrelle and soprano pipistrelle (<i>Pipistrellus pygmaeus</i>) breeding site
2018-37079-EPS-MIT	1.2km north-west	Destruction of common pipistrelle resting place

⁴ Further information available <https://www.data.gov.uk/dataset/86b755f2-b28f-48c9-b5b6-648d6bab6c40/summarised-botanical-value-map>

- 5.8 Tyrer Ecological Consultants Ltd have no previous records of bat roosts within a 2.0km buffer of the site, however this lack of records is not considered significant.
- 5.9 Whilst Ringley Road West is relatively well lit via streetlights and thus of comparatively low value to commuting and foraging bats relative to habitats in the wider area, the hedgerows lining the fields to the south and east alongside the woodland in proximity provide a degree of connectivity in all directions.

Birds

- 5.10 The site does not fall within areas of grassland, farmland, woodland or wetland habitat that are typically associated with notable bird assemblages, though bird species present in the area would have easy access to the site via the open farmland to the south and semi-natural habitats to the east and north, while the trees and hedgerows at the site and within the surrounding area are likely suitable to support nesting birds during the breeding bird season. Areas of farmland to the south also provide suitable hunting habitat for barn owls (*Tyto alba*) and other raptors.

Other terrestrial mammals

- 5.11 The site is relatively disconnected from natural habitats for mammals, with the immediate land either developed or utilised heavily as farmland. Connectivity to areas of woodland or other habitat suitable for badgers is relatively poor, being over 100 metres away and the distance between largely developed, though species such as European hedgehogs (*Erinaceus europaeus*) which are better adapted to sub-urban environs would easily access the site along the hedgerows and bordering gardens. Whilst brown hares (*Lepus europaeus*) may utilise the agricultural land in the wider area, the location of the site within the sub-urban fringes of Radcliffe is likely to discourage this species.

GCN

- 5.12 There is an absence of EPSMLs pertaining to GCN within the 2.0km radius. However, six 'present' GCN class survey license returns are located within this radius, predominantly located to the south of the search range around Clifton Country Park and the M60, though two records lie within the arable land to the south-east of the site beyond Ringley Road West; these license returns are distributed between 0.5km and 2.0km away and are dated between 2013 and 2016 (see **Figure 5.2** above).
- 5.13 Using a combination of Google Earth Pro 2023/24, MAGiC Maps 2023/24 as well as Ordnance Survey (OS) map data and ground truthing during the diurnal appraisal, no ponds were identified within the site boundary. Two ponds are located within a 250m buffer of the site (see **Figure 5.3** overleaf) at approximately 110m to the north-east (**Pond 1**) and 210m to the north (**Pond 2**).
- 5.14 The site has relatively poor connectivity to these ponds due to the developed nature of much of the land between. While there are potential commuting opportunities between the closest positive license returns to the south-east along interconnected hedgerows and drainage ditches, the distance between these records and the highly farmed nature of the fields these ponds are located within reduces the likelihood of this species accessing the site.

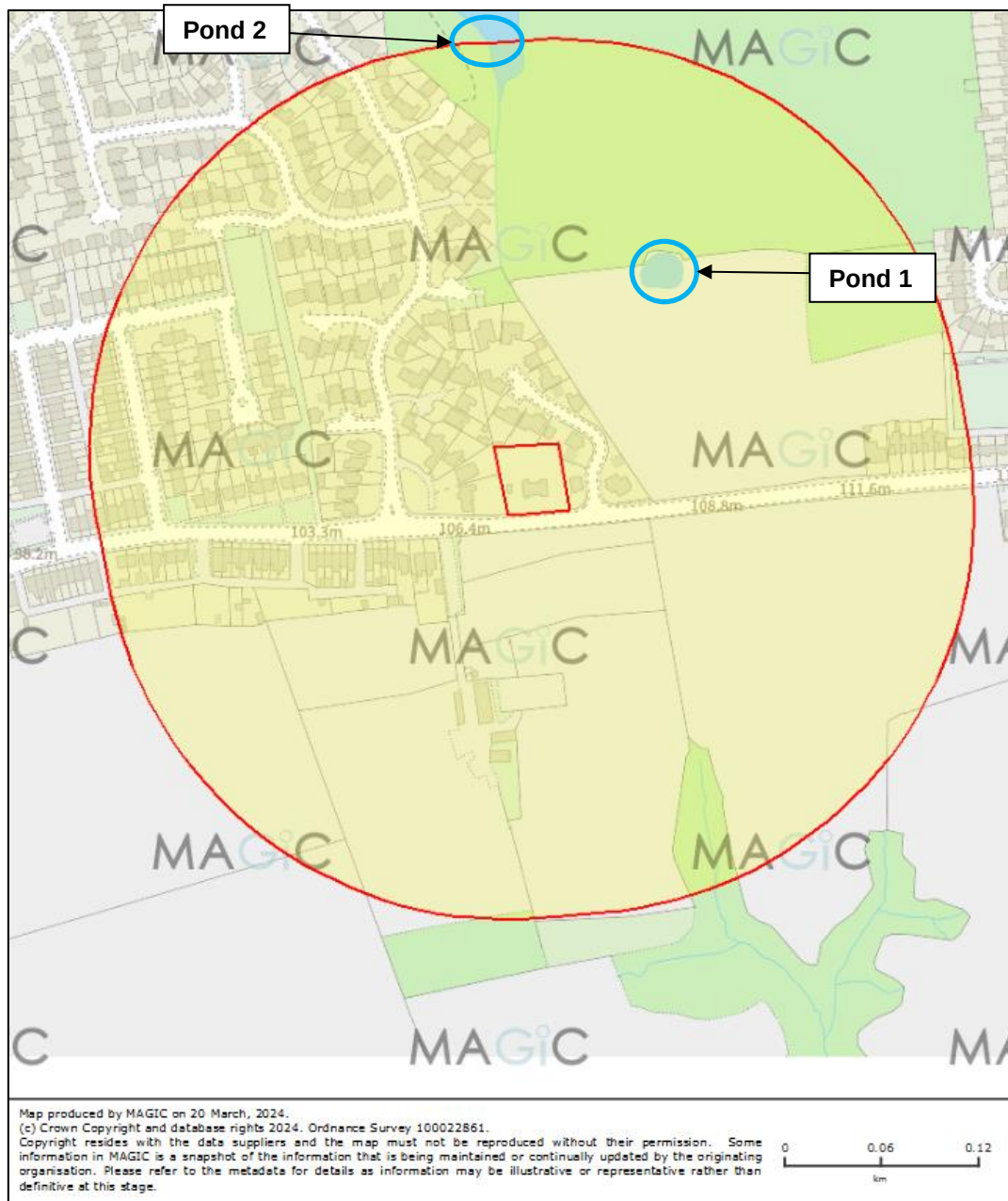


Figure 5.3 – Locations of Ponds 1 & 2 within the considered 250m radius © MAGiC Maps 2024

Other Herpetofauna

- 5.15 Given the agricultural and semi-natural habitats in proximity supporting ponds, the presence of common amphibians such as common frog and common toad in the extending environment is considered to be likely, though the largely developed immediate habitat reduces the likelihood of their presence onsite. Similarly, while the mosaic of grassland, woodland and wetland to the distant north is a habitat favoured by reptiles, the distance and developed nature of the land between the site and these areas means that their presence is considered to be unlikely.

Invertebrates

- 5.16 The developed areas to the north and west and the agricultural fields to the south are collectively unlikely to host nationally significant invertebrate populations.

6.0 Field Survey Results

6.1 Habitat survey

6.1.1 See **Table 6.1.1** (below) for baseline information and habitat descriptions; refer to **Appendix I** for any supporting imagery; additional scientific names are given in **Appendix II**. Refer to **Appendix IV** – UK Habitats Map for the location of described habitats.

Table 6.1.1 – UK Habitat types within the survey area

Area habitat	Sec. Codes	Description
g4 Modified grassland	128 Tall or tussocky sward 517 Recent management	The majority of the site, covering an approximate area totalling 0.091ha, is the front and rear gardens of the property comprising areas of tussocky grassland. While areas in proximity support acidic grasslands, the gardens at the site were noted to be species-poor and more akin to a modified grassland, lacking acidic indicator species. Species composition was restricted to graminoids including Yorkshire-fog (<i>Holcus lanatus</i>), rough meadow-grass (<i>Poa trivialis</i>), perennial rye-grass (<i>Lolium perenne</i>) and red fescue (<i>Festuca rubra</i> agg.), with herbaceous species sparse throughout and largely limited to ruderal species such as broad-leaved dock (<i>Rumex obtusifolius</i>), common ragwort (<i>Jacobaea vulgaris</i>), common nettle (<i>Urtica dioica</i>) and smooth sow-thistle (<i>Sonchus oleraceus</i>), alongside other sporadic species such as dandelion (<i>Taraxacum</i> agg.) and herb-Robert (<i>Geranium robertianum</i>). This grassland had evidently been regularly mown when the dwelling was occupied but has now become dense and tussocky due to neglect. In the front (southern) garden, three small, ornamental cypress (<i>Cupressus</i> sp.) trees are present, while to the north-east are a number of saplings of other species including pedunculate oak (<i>Quercus robur</i>) and willow (<i>Salix</i> spp.).
h3d Bramble scrub	-	A small area to the east of the site, totalling approximately 0.007ha, is comprised of bramble (<i>Rubus fruticosus</i> agg.) scrub which has become dominant over existing grassland; graminoids as present above are present beneath the dense bramble, with other species largely limited.
h3h Mixed scrub	-	The western boundary of the site is dominated by mixed scrub covering approximately 0.019ha; willow is the most dominant species, with various dense successional whips and saplings throughout, while bramble is also present throughout. Three small, semi-mature willow trees are also present within this parcel, alongside a large, felled tree at the north-western corner.
u1 847 Urban introduced shrub	523 Non-native	The south-eastern corner of the site features a very dense, non-native introduced shrub, which covers approximately 0.005ha, with no other species present.

Area habitat	Sec. Codes	Description
u1b5 Buildings	-	The main dwelling is present in the centre of the site, alongside a small shipping container to the west of the site, collectively totalling an estimated 0.018ha. See Section 6.3 for further information regarding the structural composition of the buildings and further information in relation to their suitability for protected species.
u1b6 Other developed land	-	Areas bordering the dwelling are paved or tarmacked, collectively covering 0.006ha, providing access and pathways around the building and into the site. Species composition within these areas is limited to ruderal successional species, including willowherb (<i>Epilobium sp.</i>), butterfly-bush (<i>Buddleja davidii</i>) and dandelion, while a small shoot of the invasive wall cotoneaster (<i>Cotoneaster horizontalis</i>) is present to the south of the dwelling.
u1c Artificial unvegetated, unsealed surface	-	The north of the site features an area covering 0.017ha where wood chippings and gravel are present over likely former grassland; vegetation is largely limited to tussocks of the aforementioned grass species, ruderal species and small willow saplings. A large mature willow is also present, which has evidently had various branches cut off recently, while two other trees have been felled in this parcel in the recent past, with the trunks still present. Several shoots of the invasive Himalayan cotoneaster (<i>Cotoneaster simonsii</i>) are also located to the north of this parcel.
Linear habitat	Sec. Codes	Description
h2b Non-native & ornamental hedgerow	116 Flailed hedgerow	An ornamental and highly flailed hedgerow dominated almost entirely by a non-native rose (<i>Rosa sp.</i>) runs along the southern boundary of the site, with a small portion at the eastern end also featuring garden privet (<i>Ligustrum ovalifolium</i>), collectively with an approximate length of 0.027km.
u1e Built linear feature	-	A low wall is present between the front and back gardens of the site, with a total length of approximately 0.021km.
Target Notes		
1	Location of large, felled trees	
2	Location of Himalayan cotoneaster	
3	Location of wall cotoneaster	

6.2 Vegetation

Notable species

- 6.2.1 No species of conservation importance were located anywhere within the site during the appraisal.

Invasive non-native species (INNS)

- 6.2.2 Two INNS, listed as such under Schedule 9 (Part II) of the Wildlife & Countryside Act (1981) were identified within the site boundary, namely Himalayan cotoneaster and wall cotoneaster.

6.3 Bats

- 6.3.1 The main dwelling onsite is a single storey, brick-built, unoccupied dwelling with a pitched, tiled roof and approximate maximum dimensions of 15m x 12m x 6m (length x width x height). The structure features components such as timber soffits, windows and lintels, stone sills, UPVC capping and integrated skylights. In respect of its condition, the surveyor is not qualified to assess structural state; however, the aesthetic condition of the building was adjudged to be relatively poor, with evidence of dereliction, degradation and leaks.
- 6.3.2 Internally, no access was possible to the loft space, as the floor had almost entirely given way. However, this allowed much of the loft space to be surveyed from the ground floor; the space is of a purlin and rafter construction with an apex of approximately 3.0 metres, is highly illuminated due to the skylights and the missing floor, and is assumed to be very cool, draughty and damp given the collapsed nature of the floor, the lack of insulation, the degradation of the exterior of the structure and the thermal character of the rest of the building.
- 6.3.3 Based on the above, the loft space is considered unsuitable for the breeding purposes of loft-dwelling bat species such as the brown long-eared bat; these species require dark loft spaces with constant warm and non-draughty thermal dynamics. This does not necessarily rule out usage of the structure for alternative roosting purposes, with favourable foraging and commuting habitat in proximity to the site. No evidence of loft-dwelling species was encountered by the surveyor, though this is to be expected given the access constraints.
- 6.3.4 A bitumastic underfelt is visible beneath the rafters of the roof; where present, underfelt or other such roof lining typically improves a buildings value to bats, notably for crevice-dwelling bats of the *Pipistrellus* genus, whereby the bats roost between overlaps of the bitumen and other material. No evidence of crevice-dwelling species was encountered by the surveyor, though this is to be expected given the access constraints.

NB: *The breeding roosts of Pipistrelle bats are proportionally higher in occupied residential dwellings where the warm, dry conditions favour the requirements of a maternity colony but other structures are also used, especially for hibernation or by male bats which do not need the same conditions as a maternity colony.*

- 6.3.5 Externally, a limited number of PRFs exist; at the north-western corner of the building, a roof tile has almost entirely eroded, providing a potential crevice opportunity beneath the adjacent tiles and into the roof lining, while numerous cavities exist in the brickwork of the western gable elevation, particularly along the verges, that could provide crevice opportunities, lead into the loft space, or lead into a cavity wall. The soffits and other features are tight throughout, with no other slipped, lifted or raised tiles, and the eastern gable does not feature any degradation. See **Appendix I** for indicative examples of PRFs.
- 6.3.6 Based on the above PRFs and the presence of suitable habitat in the immediate and wider landscape, the structure is duly categorised as pertaining to **'Moderate'** bat roost suitability, in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023).
- 6.3.7 The small shipping container at the west of the site is considered to be entirely unsuitable for bats, given its well-sealed, metallic structure and lack of features that could be utilised by bats, and is thus considered to pertain to a bat roost suitability of **'None'**.

- 6.3.8 There are a number of trees within the red line boundary of the site. Whilst some of these are mature and semi-mature, no PRFs were identified during the GLTA by the surveyor, with an absence of features suitable for use by bats such as woodpecker holes, rot holes, hazard beams, other vertical or horizontal cracks or splits in stems and branches, partially decayed lifted bark, knot holes, man-made holes, tear-outs, cankers in which cavities have developed, other hollows or cavities, including butt-rots, double-leaders forming compression forks with included bark, gaps between overlapping stems or branches, partially detached climbing species with stem diameters in excess of 50mm or pre-existing bat / bird boxes.
- 6.3.9 Based on the above, all of the trees are considered to pertain to a bat roost suitability of '**None**' in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023).
- 6.3.10 From a habitat suitability assessment in relation to bat activity, the site provides a mosaic of grassland, scrub and trees, with these habitats likely to provide moderate value foraging habitat for the bat species in vicinity of the site. In relatively close proximity to the north of the site is priority deciduous woodland which would provide high value habitat for bats, and the hedgerows provide suitable commuting habitat, loosely linking the site to areas of woodland in the wider landscape.

6.4 Breeding birds

- 6.4.1 In relation to WCA Schedule 1 specially protected bird species such as barn owl (*Tyto alba*), no areas suitable for nesting were identified by the surveyor, with an absence of built or natural features suitable for usage by this species. The grassland on site is not of high value for Sch.1 raptors. The likelihood of even occasional usage of the site is minimal.
- 6.4.2 The site contains a range of taller vegetation, scattered trees and scrub, which could support breeding birds during the nesting season.

6.5 Other terrestrial mammals

Badger & hedgehog

- 6.5.1 No field signs of badger, such as latrines, pathways, hairs, footprints, or feeding signs, for example snuffle holes and scratched trees / logs, were located within the application site boundary. While there is suitable habitat in relative proximity to the site in the form of woodland and hedgerows to offer loose connectivity, the largely suburbanised habitats directly bordering the site in all directions and the habitats present onsite are considered to unsuitable for this species, and so the presence of badger within the site boundary is considered to be unlikely.
- 6.5.2 Whilst no direct evidence of hedgehog was identified, the presence of suitable habitat onsite and in the immediacy mean that this species could feasibly utilise the site at will, with suitable refuge areas in the form of dense scrub, potentially viable hibernacula in the form of occasional refugia, and commuting routes in the form of hedgerows. Given that this species is highly adapted to urbanisation, their presence onsite on an occasional basis is considered possible.

6.6 Herpetofauna

Great crested newt (GCN)

- 6.6.1 Important elements to consider when assessing likely impacts against GCN includes:
- The scale, nature and magnitude of proposals,
 - Site proximity to a potential breeding pond and to any additional ponds,

- Habitat linkage / barriers between potential breeding ponds and the site,
- Nature and extent of available terrestrial habitat around the pond,
- Area of site habitat loss,
- Nature of habitat to be lost and potential value to GCN,
- Most up to date Government guidance considering EPS.

6.6.2 As derived from the desktop assessment:

- No granted EPSMLs for GCN within 2.0 kilometres,
- Six 'Present' Class Survey Licence Returns within the search range,
- No 'Present' ponds survey within the considered search range (Great Crested Newt Pond Surveys 2017 - 2019),
- Two waterbodies within 250 metres of the site.

6.6.3 In a terrestrial contextual assessment, areas of the site constitute potentially suitable features for this species, with the scrub and tussocky grassland feasibly being suitable for refuge and commuting, whilst the occasional refugia onsite could provide suitable hibernacula for this species over the winter months. Despite this, the two ponds within the search radius of the site and the closest 'present' license returns are disconnected from the site by urbanised development, highly farmed land and a busy A-road. Given that the site is immediately surrounded by development, the presence of GCN at the site is considered highly unlikely.

Wider amphibians

6.6.4 Given the site's disconnected nature from waterbodies and wetlands, and the suburban nature of the immediate surroundings, the likelihood of even more robust amphibians such as common frog (*Rana temporaria*) being present is also considered unlikely.

Reptiles

6.6.5 While the site itself may offer some minor suitability for reptiles, with habitat features such as ecotones between the dense scrub, tussocky grassland and hardstanding, the surrounding habitat is largely isolated from wider habitats likely to support reptiles. As such, presence of this taxon within the site boundary is considered to be highly unlikely.

6.7 Invertebrates

6.7.1 The site is absent of any habitats likely to support specially protected invertebrate species such as well-established woodland or unimproved grasslands and is similarly absent of habitat mosaics which provide a range of ecotones suitable to support a locally notable invertebrate assemblage.

7.0 Conclusions & Recommendations

Designated sites

- 7.1 The site is positioned within the Impact Risk Zone (IRZ) for Ashclough Site of Special Scientific Interest (SSSI) at a distance of 1.8km. Based on the IRZ information available on MAGiC Maps, the site does not fall under any of the categories which would trigger further consultation with Natural England.
- 7.2 Based upon the IRZ information, residential developments are unlikely to impact upon this designated site by way of spatial separation, and as such the proposals will not trigger the requirement for Natural England to be consulted regarding a Habitats Risk Assessment.
- 7.3 It is therefore considered unlikely that Natural England need to be consulted in respect of the proposals.

Habitats

- 7.4 No habitats of national or local priority status were located within the site boundary during the diurnal appraisal to warrant any specific intervention measures.

Vegetation

- 7.5 No priority vegetative species were identified on the site by the surveyor during the diurnal appraisal to warrant any specific intervention measures.
- 7.6 Two INNS were identified within the site boundary in the form of wall cotoneaster and Himalayan cotoneaster. Taking into account the clearance that will take place onsite, the proposals carry a risk of spreading these species off site during the construction phase.
- 7.7 Whilst it is not an offence for these species to be present on a site, it is an offence to spread or allow them to spread; to prevent incidental spread of these species during the proposed works it is recommended that a precautionary working method statement with appropriate biosecurity protocol is instated prior to commencement of site works.
- 7.8 Given the tree felling that had occurred onsite prior to the survey, with further felling likely for the development, it is recommended that the planting of UK native trees such as pedunculate oak (*Quercus robur*) or ash (*Fraxinus excelsior*) takes place onsite at a ratio of 2:1 to the number that were felled, to compensate for the loss; suitable species for native landscaping have been provided in **Appendix III**. Any further landscaping should aim to incorporate a majority of these highlighted species as a means of improving biodiversity value / enhancing the site, as opposed to non-native exotic species which offer significantly fewer benefits to our native fauna.
- 7.9 Any landscaping or planting carried out during the works should consider local soil types and habitats, and as such should prioritise native species which will better tolerate the soil type present on site and provision for faunal species present in the immediacy.

Bats

- 7.10 Based upon the findings of the desktop and field survey, covered through sections 5.0 – 6.0 of the report and supported by **Appendix I**, 70 Ringley Road West is duly categorised as pertaining to '**Moderate**' bat roost suitability, in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023), triggering the requirement for further surveys. The shipping container onsite pertains to a suitability of '**None**', and thus requires no further surveys.

Table 7.2. Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).		
Low roost suitability or PRF-I	Moderate roost suitability	High roost suitability or PRF-M
One survey visit. One dusk emergence survey ^a (structures). No further surveys required (trees).	Two separate dusk emergence survey visits ^b .	Three separate dusk emergence survey visits ^b .

Figure 7.1 – BCT extract on ‘Moderate’ suitability criteria

- 7.11 It is recommended that **two dusk emergence surveys** are conducted at the site within the season of bats (May – August, extending into September in some cases), in order to establish if / how the building is being used by bats, and if so, identify the species present, abundance, roost locations and flight lines around the site following emergence. A total of **two surveyors** would be required to cover the potential roosting features as described for each survey, and the surveys must be spaced a minimum of three weeks apart in accordance with current BCT guidance.
- 7.12 The applicant should be aware that, if during further surveys, evidence is gathered that confirms bat(s) or their roost(s) are found on site and will be impacted upon, then a Protected Species licence may be required to legally commence with the proposals.
- 7.13 Natural England provides information and guidance about licensing and the following extract is included in that guidance:
- “If you intend to apply for a licence for development, you are advised to seek the guidance of a consultant ecologist. Natural England's view is that a licence is needed if the consultant ecologist, based on survey information and specialist knowledge of the species concerned, considers that on balance the proposed activity is reasonably likely to result in an offence under the Conservation of Habitats & Species Regulations 2017 (as amended).*
- If the consultant Ecologist, on the basis of survey information and specialist knowledge of the species concerned, considers that on balance the proposed activity is reasonably unlikely to result in an offence being committed then no licence is required. However, in these circumstances Natural England would urge that reasonable precautions be taken to minimise the effect on European protected species should they be found during the course of the activity. If European protected species are found, cease the work until you have assessed whether you can proceed without committing an offence. A licence should be applied for if an offence/s is unavoidable, and the work should not commence until a licence is obtained.*
- The application should be completed by the developer and a consultant ecologist. The ecologist will need to be able to demonstrate to the satisfaction of Natural England that they have the relevant skills and knowledge of the species concerned.*
- 7.14 Where more detailed bat surveys are recommended by the Ecologist, following an initial daytime investigation, then Local Planning Authorities, on the advice of their ecological advisors, may not determine the application until such time that all relevant information is gathered, i.e., by conducting dusk / dawn surveys. The advice that is provided by the ecological advisors is also in accordance with the obligations placed upon Local Authorities by way of its duties under the Conservation of Habitats & Species Regulations 2017 (as amended). Therefore, it would be prudent to make enquiries to the relevant departmental Planning Officer before submitting a Planning Application that includes an ecological survey report that recommends more detailed surveys.

- 7.15 During the GLTA all of the trees on site were assessed to pertain to a bat roost suitability of 'None' in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023).
- 7.16 Installation of overly harsh artificial lighting as part of any development that exceeds current levels may have a negative impact upon foraging / commuting bats in the landscape, subject to their presence, particularly if increased light spillage occurs in areas of that are currently free from illumination, particularly including woodland and hedgerows. A bat-sensitive lighting plan is therefore recommended in order to avoid potential impacts to bats that may use the surrounding treelines. Several options to consider have been listed below, though the reader is referred to the Bat Conservation Trust's 'Bats and Artificial Lighting at Night' guidelines (August 2023) for further information.

Appropriate luminaire specifications: Light sources, lamps, LEDs and their fittings come in a myriad of different specifications which a lighting professional can help to select. However, the following should be considered when choosing luminaires and their potential impact on Key Habitats and features:

- All luminaires should lack UV elements when manufactured. Metal halide, compact fluorescent sources should not be used.
- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.
- A warm white light source (2700Kelvin or lower) should be adopted to reduce blue light component.
- Light sources should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012).
- Internal luminaires can be recessed (as opposed to using a pendant fitting) where installed in proximity to windows to reduce glare and light spill.
- Waymarking inground markers (low output with cowls or similar to minimise upward light spill) to delineate path edges.
- Column heights should be carefully considered to minimise light spill and glare visibility. This should be balanced with the potential for increased numbers of columns and upward light reflectance as with bollards.
- Only luminaires with a negligible or zero Upward Light Ratio, and with good optical control, should be considered - See ILP GN01.
- Luminaires should always be mounted horizontally, with no light output above 90° and/or no upward tilt.
- Where appropriate, external security lighting should be set on motion-sensors and set to as short a possible a timer as the risk assessment will allow. For most general residential purposes, a 1 or 2 minute timer is likely to be appropriate.
- Use of a Central Management System (CMS) with additional web-enabled devices to light on demand.
- Use of motion sensors for local authority street lighting may not be feasible unless the authority has the potential for smart metering through a CMS.
- The use of bollard or low-level downward-directional luminaires is strongly discouraged. This is due to a considerable range of issues, such as unacceptable glare, poor illumination efficiency, unacceptable upward light output, increased upward light scatter from surfaces and poor facial recognition which makes them unsuitable for most sites. Therefore, they should only be considered in specific cases where the lighting professional and project manager are able to resolve these issues.
- Only if all other options have been explored, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed. However, due to the lensing and fine cut-off control of the beam inherent in modern LED luminaires, the effect of cowls and baffles is often far less than anticipated and so should not be relied upon solely.

Breeding birds

- 7.17 No impacts are applicable in relation to any Sch.1 (WCA) specially protected bird species such as barn owl, and no further surveys or recommendations are necessary in relation to specially protected birds, with no viability of nesting within the site boundary.
- 7.18 Regarding wider breeding bird species, there are a range of viable nesting platforms within the site boundary, including the trees and scrub, which could provide suitable nesting locations within the nesting bird season of March – August, inclusive.

NB: *All wild birds (with only minor exceptions) and their nests whilst being built or containing eggs or dependant young are protected from destruction, damage and disturbance under the Wildlife & Countryside Act 1981 (as amended). It is a punishable offence to interfere in any way with an active nest.*

- 7.19 Given that all birds are protected when at the nest, it is recommended that any vegetation clearance on site or pond works are carried out outside of the breeding bird season (March – August inclusive). For any works within the breeding bird season, a pre-commencement check of any impacted habitats able to support nesting birds (inclusive of the hedgerow, trees, scrub and pond) will need to be carried out by a suitably qualified ecologist / ornithologist in order to determine whether or not active nests are present. This will need to be carried out within 48 hours or less prior to works commencing.

Point 3.24 of the British Standards Publication 42020:2013 defines a professional ecologist as: *“a person who has, through relevant education, training or experience, gained recognised qualifications and expertise in the field of ecology and environmental management.”*

- 7.20 Where / if active nests are located by the Ecologist, then any works which may affect them would have to be delayed until the young have fledged and the nest has been abandoned naturally, this can be aided, for example, via implementation of appropriate buffer zone(s) around the nest site (species dependent) in which no disturbance is permitted until the nest is no longer in use. This would have to be coordinated through the expert judgement of the professional ecologist and species pending.

Other terrestrial mammals

Badger & hedgehog

- 7.21 No badger setts or field signs were located during the survey, and the proposals are considered to pose negligible risks to badgers. No further recommendations are applicable.
- 7.22 Hedgehogs could occasionally utilise the site for occasional foraging, commuting or refuge owing to the habitat features as described. It is therefore recommended that a detailed Method Statement outlining Reasonable Avoidance Measures (RAMs) is produced for this species to avoid any impacts.
- 7.23 RAMs to minimise construction impacts and prevent harm or injury to hedgehog should include, as a minimum:
- All working hours should be limited to daylight (dawn – sunset, or dawn – 6pm in winter) to avoid disturbing any hedgehog in vicinity of the development area.
 - A pre-commencement check of the site, any stored materials and the immediate vicinity of development footprint will be carried out prior to any works each morning in order to check for the presence of hedgehog.

- Materials that may cause entrapment such as plastic / metal fencing, as well as those which could be potentially harmful to terrestrial mammals such as chemicals, should not be left around the site following the cessation of daytime work.
- No bulky equipment / general construction aggregates should be left around the development area, instead leave them on bare ground away from the risk zone.
- Fires must not be used as a means of the disposing of waste materials.
- Any trenches or excavations must either be covered at the end of each working day, or a low angle (no more than 45°) sloping board of approximately 300mm width should be provisioned within any uncovered excavations to provide a means of escape for any terrestrial mammals.
- Any temporarily exposed open pipe system **MUST** be capped in such a way as to prevent fauna gaining access, as may happen when contractors are off site.

Herpetofauna

Great crested newt (GCN)

- 7.24 Regarding great crested newt (GCN), the results of both the desktop and field study suggest that risks of this species being present within the application site, or the immediate vicinity are absent. As such, no further recommendations are made in relation to GCN.

Wider herpetofauna

- 7.25 Given the lack of ponds and other wetland features favoured by this species group, the presence of more generalist amphibians is also considered highly unlikely, and no further recommendations are suggested in relation to these species.
- 7.26 Impacts to reptiles are considered negligible, given the lack of records in proximity and isolation from wider suitable habitats.

Invertebrates

- 7.27 The site is not considered to be locally distinct for this species group and no specific intervention measures apply. Enhancement options have been presented in **Appendix III**.

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Appendix I: Site Photographs



Plate 1 – General nature of the site as seen from the south



Plate 2 – Hedgerow along southern site boundary



Plate 3 – *Low species diversity of the grassland onsite*



Plate 4 – *Cypress trees at south-west of site*



Plate 5 – *South-western corner of site, with willow scrub encroaching shipping container*



Plate 6 – *South-eastern corner of site, with dense introduced non-native shrub*



Plate 7 – Rear aspect of the dwelling



Plate 8 – Large, mature tree at north of site with cut limbs



Plate 9 – *Large felled tree at north-western corner of site*



Plate 10 – *Nature of the area surrounding felled trees, with wood chipping and sparse vegetation*



Plate 11 – *Further large felled tree at north of site*



Plate 12 – *Shipping container, with mixed scrub surrounding*



Plate 13 – *Dense mixed scrub along western site boundary, with three small willow trees within*



Plate 14 – *Rear garden of the site, with bramble scrub to rear and saplings*



Plate 15 – *Eroded roof tile at north-western corner of building*



Plate 16 – *PRFs in brickwork of western gable elevation*



Plate 17 – *Eastern aspect of the building, with tight gapping and verges noted*



Plate 18 – *Tight character of soffits throughout*



Plate 19 – *Character of the loft space as seen from ground floor, with roof lining and skylights*



Plate 20 – *Collapsed nature of the loft space floor*



Plate 21 – *INNS Himalayan cotoneaster* at northern site boundary



Plate 22 – *INNS wall cotoneaster* south of the dwelling

Appendix II: Botanical Species List

Species nomenclature follows Stace, C (2019) – definitive English names; scientific names for given flora are presented below.

Any invasive non-native species are denoted by the acronym (INNS).

Each species recorded was given an abundance value according to the standard DAFOR scale, where:

- D = Dominant
- A = Abundant*
- F = Frequent*
- O = Occasional*
- R = Rare*

(*These values can be prefixed by the letter L (locally) to provide more subtle biogeographical data.)

Common Name	Scientific Name	Abundance
Annual meadow-grass	<i>Poa annua</i>	O
Bramble	<i>Rubus agg.</i>	LD
Broad-leaved bamboo sp.	<i>Sasa sp.</i>	R
Broad-leaved dock	<i>Rumex obtusifolius</i>	O
Butterfly-bush	<i>Buddleja davidii</i>	O
Cherry laurel	<i>Prunus laurocerasus</i>	R
Cleavers	<i>Galium aparine</i>	F
Canary Island ivy	<i>Hedera canariensis</i>	LF
Columbine	<i>Aquilegia vulgaris</i>	R
Common ivy	<i>Hedera helix</i>	F
Common nettle	<i>Urtica dioica</i>	O
Common ragwort	<i>Jacobaea vulgaris</i>	O
Cow parsley	<i>Anthriscus sylvestris</i>	R
Crane's-bill sp.	<i>Geranium sp.</i>	R
Creeping buttercup	<i>Ranunculus repens</i>	O
Creeping cinquefoil	<i>Potentilla reptans</i>	R
Creeping thistle	<i>Cirsium arvense</i>	R
Cypress sp.	<i>Cupressus sp.</i>	LD
Dandelion	<i>Taraxacum officinale agg.</i>	F
Dove's-foot crane's-bill	<i>Geranium molle</i>	O
Foxglove	<i>Digitalis purpurea</i>	R
Garden privet	<i>Ligustrum ovifolium</i>	LF
Hart's tongue fern	<i>Asplenium scolopendrium</i>	O
Herb Robert	<i>Geranium robertianum</i>	F
Himalayan cotoneaster	<i>Cotoneaster simonsii</i>	LF
Holly	<i>Ilex aquifolium</i>	R
Pedunculate oak	<i>Quercus robur</i>	O
Pendulous sedge	<i>Carex pendula</i>	O
Perennial rye-grass	<i>Lolium perenne</i>	F

Common Name	Scientific Name	Abundance
Red fescue	<i>Festuca rubra</i>	F
Rough meadow-grass	<i>Poa trivialis</i>	O
Rose sp.	<i>Rosa sp.</i>	LA
Small-flowered crane's-bill	<i>Geranium pusillum</i>	LF
Smooth sow-thistle	<i>Sonchus oleraceus</i>	O
Wall cotoneaster	<i>Cotoneaster horizontalis</i>	R
White clover	<i>Trifolium repens</i>	R
Willow sp.	<i>Salix sp.</i>	D
Willowherb sp.	<i>Epilobium sp.</i>	R
Yorkshire-fog	<i>Holcus lanatus</i>	LA

Appendix III: Biodiversity Enhancement: General Recommendations

Breeding Birds – House Sparrow

The sparrow terrace has been designed to help redress the balance of falling house sparrow numbers. The current UK population is now half of what it previously was in 1980 and this is widely attributed to habitat destruction and lack of suitable nesting spaces. House sparrows are social birds and like to nest in company, therefore, this terrace provides ideal nesting opportunities for three families. The terrace can be fixed on to the surface of a suitable wall or incorporated into the wall. It is suitable for all types of buildings.



Breeding Birds – Other

This traditional design has proved to be highly effective in attracting robins, as well as other small species such as black redstart, spotted flycatcher and wren. It is designed to be installed on the walls of houses, barns, garden sheds or other buildings and should be hung so that the entrance is to one side (at an angle of 90° to the wall). The front panel can be easily removed for cleaning.

This type of box should not be made conspicuous on a tree or bush because small predators can enter through the unprotected opening. By hanging on a wall, predators won't be able to reach the box. Alternatively hide the box in Ivy, Honeysuckle or other climbing plants.



Hedgehog Home

Exterior quality 12mm resin bonded ply. The box remains untreated on the inside. Best situated in a quiet corner of the garden, and covered with leaves and other garden debris. Removable lid for cleaning purposes and reinforced corners, manufactured with surface sunk nails to resist rusting.

Nest box size: Height 22cm x Width 38cms x Length 47cm



Environmentally positive: Direct action to help hedgehog survival rates, encouraging biodiversity; FSC timber; Zero carbon footprint in use.

Amphibians – hibernacula

Hibernacula are underground chambers that amphibians and reptiles use throughout the winter to protect themselves from the cold. Creating a hibernaculum will provide a safe space for amphibians and reptiles to hibernate over winter, as well as a spot for solitary bees to soak up the sun and for birds to relax. These habitats can be integrated into a wide variety newly created or enhanced habitats and attract herps to new areas.

You will need:

- A spade
- Logs and branches
- Rocks and bricks
- 2-3 drainpipe cut-offs or cement pipes (if using plastic drainpipes, roughen the insides with sandpaper, so that they are not too slippery for animals to climb)
- Turf or meadow flower seeds (optional)

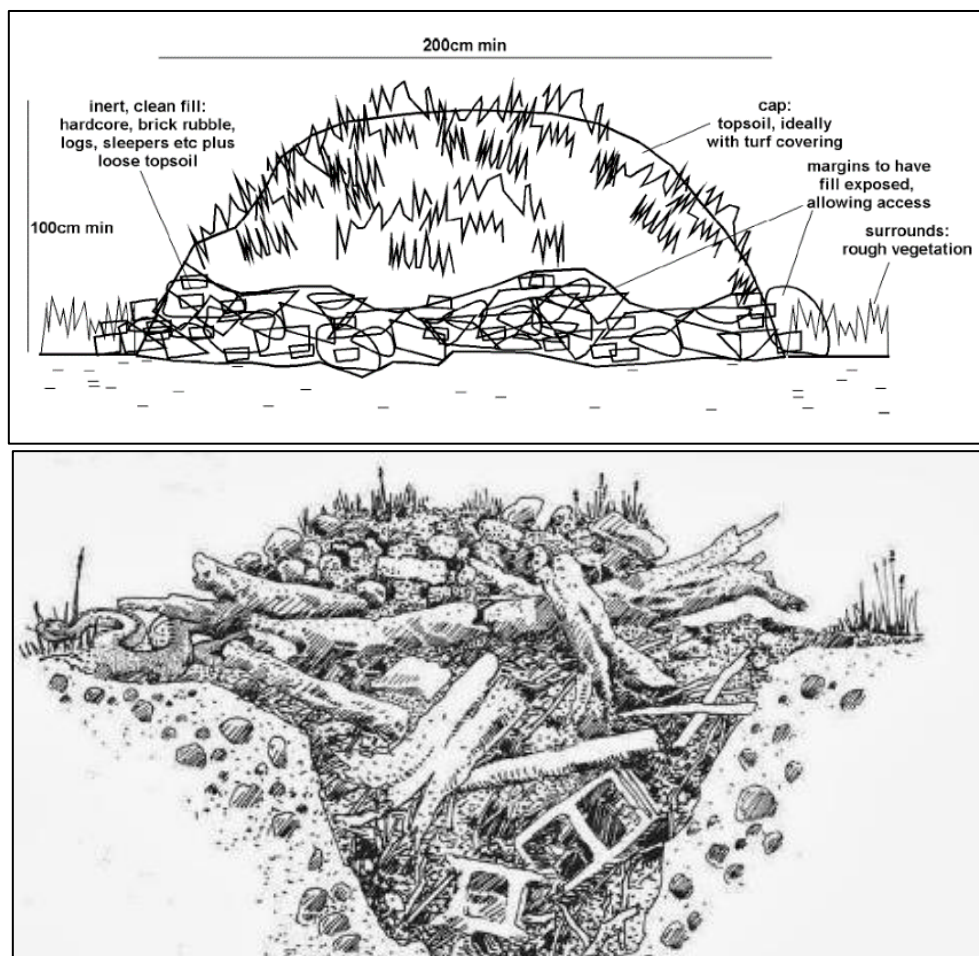
How to make your hibernaculum yourself:

- In a sunny spot, dig a hole about 50cm deep and 1.5 metres across.
- Fill with logs, branches, bricks and rocks, leaving plenty of gaps in between.
- Insert entrance tubes (drainpipes) at ground level into the hole.
- Cover the pile with soil (to about 50cm high).
- Plant meadow seeds or long grasses over the mound to create a feast for summer pollinators.

To construct a hibernaculum to Natural England standard:

- In desired areas, remove the turf from the footprint of the hibernaculum and set aside.
- On well-drained soil excavate to a depth of approximately 500 mm and set aside spoil (this is unnecessary on poorly drained soils).
- Fill the footprint or pit with core material. Materials likely to retain moisture are preferable, such as cut timber, brash and grubbed up tree roots. Other material such as inert hardcore, bricks, rocks, and building rubble may also be used. Materials that will decompose should not be placed beneath heavy components such as bricks or rocks, to reduce the risk of collapse.
- Pack the larger spaces within the core materials with wood chippings, loose topsoil or spoil.
- Cover the hibernaculum with the turves removed from the footprint.
- Take care not to create structures that might attract rodents, such as piles of rubble with many entrance holes. There has been no rigorous investigation of the optimum size of hibernacula, but larger hibernacula are probably more useful than small constructions because they contain a variety of different microhabitats and are more likely to maintain stable conditions.
- A suggested minimum size is 4.0 m long by 2.0 m wide by 1.0 m deep. 2.0 x 2.0 x 1.0 metres (length x width x height) as a minimum.

Illustrative aid for hibernaculum:



Invertebrates – Insect Hotels

Insect hotels provide a habitat for a variety of insects. Designs can be small or large enough to create a focal point in a wildlife garden and sturdy enough to last for years. Ensure hotels are made from untreated wood, which is important as insects need natural materials to thrive, and split into sections that each contain a different nesting material. There should be pine cones for ladybirds, wood slits for butterflies and moths, bamboo canes for solitary bees, and loose pieces of wood for beetles. Placement: Size against walls or fences and fix to prevent toppling. The feet keep the main body off the damp ground. You could push bricks against them to keep the bug hotel upright, which would also encourage woodlice and even frogs that enjoy cool stone conditions.



Invertebrates – Bee bricks

The Bee Brick can be used in place of a standard brick or block in construction to create habitat for solitary bees. Alternatively, it can be used as a standalone bee house in your garden or wild patch. It will provide much needed nesting space for solitary bee species such as red mason bees and leafcutter bees, both of which are non-aggressive.

Each Bee Brick contains cavities in which solitary bees can lay their eggs before sealing the entrance with mud and chewed-up vegetation. The offspring will emerge the following spring and the cycle will begin again. Each cavity goes part way into the brick, which is solid at the back. Bee Bricks should be placed in a warm sunny spot on a south-facing wall at a minimum height of 1m, with no vegetation obstructing the holes. It is highly recommended that bee-friendly plants should be located nearby so that the bees using the bricks have food, otherwise it is unlikely that the brick will be used. Available in a choice of four colours: white grey, dark grey, yellow and red.



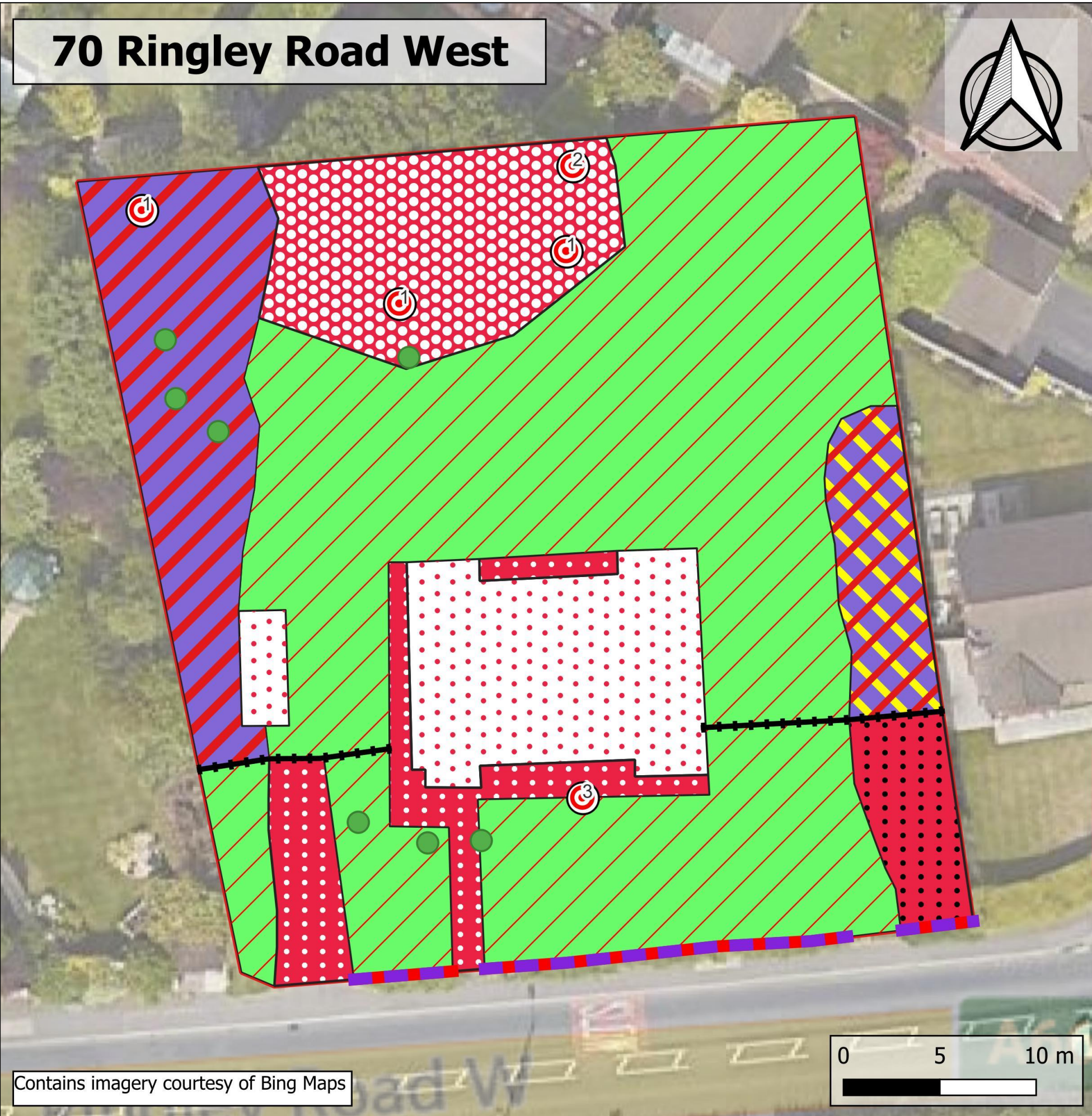
Specification

- * Material: Concrete
- * Dimensions: W 215mm x D 105mm x H 65mm
- * Weight: 2.9kg
- * Colours: White grey, yellow, dark grey and red

Native Planting and/or Landscaping

The below species have been assessed against the local soil and habitat types and are deemed suitable for the site. All plant material should comply with the minimum requirements in BS 3936-1: 1992 Specification for trees and shrubs and BS 3936-4: 2007 Specification for forest trees and BS 8545: 2014 Trees from Nursery to Independence in the Landscape. Any plant material, which in the opinion of the appointed Landscape Architect, does not meet the requirements of the Specification, or is unsuitable, or defective in any other way, will be rejected. The minimum specified sizes in the plant schedule will be strictly enforced. The contractor should replace all plants rejected at own cost. New hedgerows should be primarily comprised of blackthorn, hawthorn, hazel, and holly, whilst climbers/creepers such as hops and honeysuckle can be planted at the base of boundary features such as fences and walls, and new tree planting should include species such as pedunculate oak, wild cherry, and alder buckthorn.

	Common Name	Scientific Name	Planting Preference
Ferns	Male Fern	<i>Dryopteris filix-mas</i>	Semi-shade or shaded
	Soft Shield-fern	<i>Polystichum setiferum</i>	Semi-shade or shaded
	Maidenhair Fern	<i>Adiantum capillus-veneris</i>	Suitable for rockeries / walled gardens
	Royal Fern	<i>Osmunda regalis</i>	Full sun in moist-damp areas
Herbaceous plants	Bloody Crane's-bill	<i>Geranium sanguineum</i>	Dry soils - suitable for rockeries
	Columbine	<i>Aquilegia vulgaris</i>	Semi-shade or open areas
	English Bluebell	<i>Hyacinthoides non-scripta</i>	Moist soils in semi-shade or open areas
	Giant Bellflower	<i>Campanula latifolia</i>	Semi-shade or open areas
	Greater Knapweed	<i>Centaurea scabiosa</i>	Dry-moist soils. Suitable for borders
	Greater Woodrush	<i>Luzula sylvatica</i>	Moist soils in semi-shade or open areas
	Meadow Crane's-bill	<i>Geranium pratense</i>	Humid-moist soils. Suitable for borders
	Musk Mallow	<i>Malva moschata</i>	Dry-moist soils. Suitable for borders and rockeries
	Sea Campion	<i>Silene uniflora</i>	Dry soils - suitable for rockeries
	Stinking Hellebore	<i>Helleborus foetidus</i>	Semi-shade or open areas
Climbers	Honeysuckle	<i>Lonicera periclymenum</i>	Dry-moist soils
	Hops	<i>Humulus lupulus</i>	Dry-moist soils
	Ivy	<i>Hedera helix</i>	Dry-moist soils
	Sweet-briar	<i>Rosa rubiginosa</i>	Dry-moist soils
Woody Shrubs	Dogwood	<i>Cornus sanguinea</i>	-
	Guelder Rose	<i>Viburnum opulus</i>	-
	Hawthorn	<i>Crataegus monogyna</i>	-
	Hazel	<i>Corylus avellana</i>	-
	Holly	<i>Ilex aquifolium</i>	-
Trees	Alder Buckthorn	<i>Frangula alnus</i>	-
	Osier	<i>Salix viminalis</i>	-
	Pedunculate Oak	<i>Quercus robur</i>	-
	Purple Willow	<i>Salix purpurea</i>	-
	Rowan	<i>Sorbus aucuparia</i>	-
	Silver Birch	<i>Betula pendula</i>	-
	Wild Cherry	<i>Prunus avium</i>	-
	Wych Elm	<i>Ulmus glabra</i>	-



UK Habitats Key

- Trees
- Target note
- g4 - Modified grassland - 128, 517
- h3d - Bramble scrub
- h3h - Mixed scrub
- u1 847 - Urban introduced shrub - 523
- u1b5 - Buildings
- u1b6 - Other developed land
- u1c - Artificial unvegetated, unsealed surface
- h2b - Non-native and ornamental hedgerow - 116
- u1e - Built linear feature
- Boundary

Target notes:	Secondary Codes:
1. Location of large felled trees	116 - Flailed hedgerow
2. Location of Himalayan cotoneaster	128 - Tall or tussocky sward
3. Location of wall cotoneaster	517 - Recent management
	523 - Non-native

Survey Date: 12/03/2024
Drawn: Mr. H. Mulligan
Date Drawn: 18/03/2024
Checked & Approved: Mrs. K. Wilding
Size: A3
Scale: 1:275

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