

# Preliminary Ecological Appraisal and Roost Assessment

**Survey site:**

4 Monkshood Close, Wokingham, RG40 5YE

**Client:**

Peter & Suzanne Lawrence

**Survey date:**

02/04/2025

**Project:**

This report is prepared to inform a planning application with the Wokingham Council. The proposal is described as:  
Erection of a single storey side extension. Plus, changes to fenestration. Following the demolition of the existing conservatory.

PEA survey methodology and legislation can be found in the Arbtech Supplement: [PEA Methodology and Legislation - 2024.](#)

PRA survey methodology and legislation can be found in the Arbtech Supplement: [PRA Methodology and Legislation - 2024.](#)

| Site Location and Context                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                  |              |                 |             |      |
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| <p>The survey site is centred on National Grid Reference SU 82275 69230 and has an area of approximately 0.063ha.</p> <p>The site comprises one dwelling (B1) and a vegetated garden with scattered trees. It is situated within the town of Wokingham, Berkshire. The site is situated within an urban environment, however there are scattered trees within the site and extending into the local garden landscape. Aerial imagery shows the local landscape to have a suburban character with residential houses and gardens located across the immediate surroundings with areas of recreational grassland and small woodland parcels scattered in between.</p> <p>A water body is located immediately to the south of the site as well as ~140m southeast and ~460 east. Such features likely enhance the area for a variety of species, including bats, amphibians and reptiles.</p> |                  |              |                 |             |      |
| Survey Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                  |              |                 |             |      |
| The site survey was undertaken by Rebecca Gane BSc (Hons) Graduate Ecologist, an accredited agent on the Natural England survey licences for bats [2018-33540-CLS-CLS (class 1).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                  |              |                 |             |      |
| Date of survey                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Temperature (°C) | Humidity (%) | Cloud Cover (%) | Wind (km/h) | Rain |
| 02/03/2025                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 16               | 47           | 0               | 24          | None |
| Survey limitations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                  |              |                 |             |      |
| It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site. This assessment provides a preliminary view of the likelihood of protected species being present. This is based on suitability of the habitats on the site and in the wider landscape, the ecology and biology of species as currently understood, and the known distribution of species as recovered during the searches of historical biological records.                                                                                                                                                                                                                                                                                                       |                  |              |                 |             |      |

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| A biological records data search has not been undertaken. However, given the location of the site, the nature of the habitats present and the assessed suitability of the site for protected or notable species, it is not anticipated that the purchase of biological records data will add any significant weight or alter the conclusions and recommendations outlined in this report. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Ecological Survey Factor</b><br><br><b>Conclusion, Impact or Recommendations</b>                                                                                                                                                                                                                                                                                                       | <b>Detailed using desk study and site survey (carried out under good weather conditions). Any specific limitations noted within relevant section. This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Habitats and plants (see habitat map in appendix 1, location plan in appendix 2, proposal plan in appendix 3 and photos in appendix 4).</b><br><b>Botanical species are described with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).</b>                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <i>Summary of Survey Findings</i><br><br><i>(UKHab codes used)</i>                                                                                                                                                                                                                                                                                                                        | <p>The site does not contain any habitats listed as a habitat of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006). However, the site contains a single tree which is of good quality and could be of value to local wildlife populations (as detailed in subsequent sections of this table). Other habitats within the site are common and widespread and have low ecological value. Notable habitats are present within 2km.</p> <p><b>On-site habitat descriptions</b></p> <p><b><u>u1b5</u> – Buildings</b></p> <p>A two-storey dwelling with an attached single storey garage (B1) and timber shed (B2) are located onsite.</p> <p><b><u>u1b</u> – Developed land/sealed surface</b></p> <p>A paved driveway and patio/pathway is located either side of B1 and B2.</p> <p><b><u>g4</u> – Modified grassland [vegetated garden 828, introduced shrubs 847, scattered trees 32]</b></p> <p>A garden comprising of well-managed amenity grassland and introduced shrub is located in the southern portion of the site.</p> |

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|                         | <p>The lawn is kept at a homogenous short sward height and is species poor, containing (D) perennial rye (<i>Lolium perenne</i>), springy turf moss (<i>Rhytidiadelphus squarrosus</i>), (A) creeping buttercup (<i>Ranunculus repens</i>) (O) common daisy (<i>Bellis perennis</i>). There are borders of introduced shrub that include, <i>Pyracantha</i>, <i>Pittosporum</i>, <i>Ceanothus</i>, <i>Choisya</i> and <i>Weigela</i>. These areas have minimal ground vegetation. A single Magnolia tree (diameter at breast height ~7.5cm, multistemmed) is located within the southeastern border.</p> <p><b>Local notable habitats</b></p> <p>Patches of deciduous woodland are present in close proximity to the site. The closest is located ~0.01km to the southwest, with a second patch of deciduous woodland ~0.012km to the southeast. The trees on-site likely have functional connectivity to these patches of woodland, given their proximity to the site and the presence of numerous trees throughout the garden landscape. LMDW is classed as a priority habitat under Section 41 of the Natural Environment and Rural Communities (NERC) Act, 2006. Further priority habitats are present within 2km of the site, including:</p> <ul style="list-style-type: none"> <li>• Ancient woodland – closest parcel 0.65km north</li> <li>• Woodpasture and parkland – closest parcel ~2km east</li> <li>• Traditional orchards - closest parcel ~1.9km south</li> </ul> |
| <i>Foreseen Impacts</i> | <p><b>On-site habitats</b></p> <p>The proposed development will result in the loss of building and hardstanding. This is likely to have a minimal impact on biodiversity due to the low ecological value of these habitats.</p> <p><b>Notable habitats</b></p> <p>The proposed development entailed the dismantling of two conservatories, and subsequent construction of a single storey side extension on the western aspect of B1. Construction activities are unlikely to have an impact on any notable habitats, including the pond to the south.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <i>Recommendations</i>  | <p><b>On-site habitats</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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|                                          | <p>None required.</p> <p><b>Notable habitats</b></p> <p>None required.</p> <p><b>Biodiversity net gain</b></p> <p>The Environment Act (2021) requires all developments (excluding exemptions) to deliver a 10% net gain in biodiversity. The project is unlikely to trigger the requirement for a biodiversity net gain assessment as it falls under one of the exemptions (state exemption e.g. self-build, less than 25m<sup>2</sup> of habitat being impacted etc).</p>                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Locality and Designated Sites</b>     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <p><i>Summary of Survey Findings</i></p> | <p><b>On-site designations</b></p> <p>The site is not subject to any designation.</p> <p><b>Statutory designated sites (within 2km)</b></p> <p>There are 2 statutory sites within 2km of the site, as detailed below:</p> <p><b>Keep Hatch</b> - Local Nature Reserve (LNR) (not present within the magic database – ~80m south)</p> <p>A 9ha consisting of woodland, a small meadow and two ponds. These habitats are important for local bird, insect and amphibian populations.</p> <p><b>Holt's Copse &amp; Joel Park</b> - LNR ~1.5km west</p> <p>A small parcel of ancient woodland in an island of parkland &amp; residential housing on the urban edge of Wokingham.</p> <p>The site lies within the impact risk zone for <b>Broadmoor to Bagshot Woods and Heaths</b> Site of Specific Scientific Interest (SSSI)</p> <p><b>Non-statutory designated sites</b></p> |

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|                                      | The presence of non-statutory designated sites within 2km of the site cannot be established without data from Thames Valley Environmental Records Centre.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <i>Foreseen Impacts</i>              | <p><b>On-site designations</b></p> <p>No impacts foreseen.</p> <p><b>Statutory and non-statutory designated sites</b></p> <p>No impacts to designated sites are anticipated due to the small scale and distance of the proposed development from such sites (where known) as well as the urban location of the site with surrounding physical barriers.</p> <p>The site lies within the impact risk zone for SSSI name. The development does not entail any increase in residential units and therefore proposed development type is not listed as a possible high risk for this designation.</p> |
| <i>Recommendations</i>               | <p><b>On-site designations</b></p> <p>None required.</p> <p><b>Statutory and non-statutory designated sites</b></p> <p>None required.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Invasive / Non-native species</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <i>Summary of Survey Findings</i>    | Hollyberry cotoneaster ( <i>Cotoneaster bullatus</i> ) was identified on the site which is listed as an invasive, non-native species under Schedule 9 of the Wildlife and Countryside Act 1981.                                                                                                                                                                                                                                                                                                                                                                                                   |
| <i>Foreseen Impacts</i>              | None. Construction will not result in the removal of invasive species onsite, therefore the risk of spread is minimal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <i>Recommendations</i>               | No further surveys but remain vigilant.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| Invertebrates              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                                                             |  |                |                      |                    |                            |                    |                 |                  |                                                             |                    |           |              |                                |               |      |             |
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| Summary of Survey Findings | The habitats present on-site, including lawns, ornamental shrubs and a single tree, likely provide common invertebrates with opportunities to forage and shelter. The site contains no further notable habitats which may provide niches for specialised or protected invertebrates.                                                                                                                                                                                                                                                                        |                    |                                                             |  |                |                      |                    |                            |                    |                 |                  |                                                             |                    |           |              |                                |               |      |             |
|                            | Foreseen Impacts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                                                             |  |                |                      |                    |                            |                    |                 |                  |                                                             |                    |           |              |                                |               |      |             |
|                            | None foreseen.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                                                             |  |                |                      |                    |                            |                    |                 |                  |                                                             |                    |           |              |                                |               |      |             |
| Recommendations            | No further surveys.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                                                             |  |                |                      |                    |                            |                    |                 |                  |                                                             |                    |           |              |                                |               |      |             |
|                            | Suggested biodiversity enhancements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                                                             |  |                |                      |                    |                            |                    |                 |                  |                                                             |                    |           |              |                                |               |      |             |
|                            | The incorporation of native wildflowers into the established garden beds would add foraging value for insects. Species such as cowslip ( <i>Primula veris</i> ), primrose ( <i>Primula vulgaris</i> ), foxglove ( <i>Digitalis purpurea</i> ), greater knapweed ( <i>Centaurea scabiosa</i> ), and field scabious ( <i>Knautia arvensis</i> ) are native biennial/ perennials that provide pollinators with foraging resources.                                                                                                                             |                    |                                                             |  |                |                      |                    |                            |                    |                 |                  |                                                             |                    |           |              |                                |               |      |             |
| Bats                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                                                             |  |                |                      |                    |                            |                    |                 |                  |                                                             |                    |           |              |                                |               |      |             |
| Summary of Survey Findings | EPSL data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |                                                             |  |                |                      |                    |                            |                    |                 |                  |                                                             |                    |           |              |                                |               |      |             |
|                            | A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed. Displaced bats from licensed sites <2km away from the survey site will find alternative habitat either within the mitigation measures implemented as part of the licence or will relocate to other known roosts sites in close proximity to the licensed site. There are 4 EPSLs within a 2km radius of site as detailed below:                                                                                                                 |                    |                                                             |  |                |                      |                    |                            |                    |                 |                  |                                                             |                    |           |              |                                |               |      |             |
|                            | <table><tr><th>EPSL reference</th><th>Bat species affected</th><th>Distance from site</th><th>Impacts allowed by licence</th></tr><tr><td>2020-48489-EPS-MIT</td><td>BLE,C-PIP,S-PIP</td><td>~1.1km northwest</td><td>Destruction of a resting place<br/>Damage to a resting place</td></tr><tr><td>2018-34805-EPS-MIT</td><td>BLE,C-PIP</td><td>~1.3km south</td><td>Destruction of a resting place</td></tr><tr><td>EPSM2009-1496</td><td>NOCT</td><td>~1.7km west</td><td>Destruction of a breeding site<br/>Damage to a breeding site</td></tr></table> |                    |                                                             |  | EPSL reference | Bat species affected | Distance from site | Impacts allowed by licence | 2020-48489-EPS-MIT | BLE,C-PIP,S-PIP | ~1.1km northwest | Destruction of a resting place<br>Damage to a resting place | 2018-34805-EPS-MIT | BLE,C-PIP | ~1.3km south | Destruction of a resting place | EPSM2009-1496 | NOCT | ~1.7km west |
| EPSL reference             | Bat species affected                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Distance from site | Impacts allowed by licence                                  |  |                |                      |                    |                            |                    |                 |                  |                                                             |                    |           |              |                                |               |      |             |
| 2020-48489-EPS-MIT         | BLE,C-PIP,S-PIP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ~1.1km northwest   | Destruction of a resting place<br>Damage to a resting place |  |                |                      |                    |                            |                    |                 |                  |                                                             |                    |           |              |                                |               |      |             |
| 2018-34805-EPS-MIT         | BLE,C-PIP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ~1.3km south       | Destruction of a resting place                              |  |                |                      |                    |                            |                    |                 |                  |                                                             |                    |           |              |                                |               |      |             |
| EPSM2009-1496              | NOCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ~1.7km west        | Destruction of a breeding site<br>Damage to a breeding site |  |                |                      |                    |                            |                    |                 |                  |                                                             |                    |           |              |                                |               |      |             |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |       |                                                                                      | Destruction of a resting place                              |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2015-11806-EPS-MIT | C-PIP | ~1.8km west                                                                          | Destruction of a resting place<br>Damage to a resting place |
| <p><b>Foraging and commuting habitat</b></p> <p>Habitats recorded on site are assessed to provide foraging and commuting opportunities for bats in the form of species-poor amenity grassland, introduced shrub and a single tree. The surrounding habitat includes further gardens of similar value, but a large pond surrounded by large mature trees is present to the south. These habitats are likely to provide micro-climatic conditions that support invertebrates that will in turn provide foraging opportunities for local bat populations.</p> <p><b>Roosting habitat</b></p> <p>The main dwelling (B1) is to be impacted by the proposed development and has been assessed for its suitability to support roosting bats below. Whilst only B1 is to be affected, a timber shed is also present has also been highlighted below. No evidence of roosting bats was identified on or within B1 or any of the surveyed trees on-site.</p> |                    |       |                                                                                      |                                                             |
| B1 Building description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |       | Photographs                                                                          |                                                             |
| <p><i>Summary</i></p> <p>B1 is a two-storey dwelling with an attached single storey garage and two conservatories. Both conservatories will be removed during development, with an extension being built in the same footprint as the western conservatory.</p> <p>The building is in good condition and considered to have <b>negligible</b> value for roosting bats.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |       |  |                                                             |

| Feature | Materials                    | Condition/description/suitability                                                                                                                                                                                                                                                                  | Photograph(s)                                                                        |
|---------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Walls   | Brick and mortar             | <p><b>Condition/description</b></p> <p>Good condition, no missing or broken bricks and no missing mortar. There is a chimney located on the eastern aspect that is also in good condition, with the lead flashing laying flush.</p> <p><b>Suitability/access/evidence of bats</b></p> <p>None.</p> |   |
| Roof    | Concrete interlocking tiles. | <p><b>Condition/description</b></p> <p>Concrete interlocking tiles in good condition. No lifted, broken or missing tiles. Ridge is in good condition and no missing mortar present along the ridge or at the verge.</p> <p><b>Suitability/access/evidence of bats</b></p> <p>None.</p>             |  |

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|       |             |                                                                                                                                                                                            |   |
| Eaves | Overhanging | <p><b>Condition/description</b></p> <p>No suitable roosting features identified.<br/>All eaves/soffits are well-sealed.</p> <p><b>Suitability/access/evidence of bats</b></p> <p>None.</p> |  |

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| <p>Barge<br/>boards/fascia<br/>boards</p> | <p>N/A</p> | <p><b>Condition/description</b><br/>No suitable roosting features identified</p> <p><b>Suitability/access/evidence of bats</b><br/>None.</p> |  |
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| <p>Conservatories</p> | <p>Brick and PVC</p> | <p><b>Condition/description</b></p> <p>No suitable roosting features identified</p> <p><b>Suitability/access/evidence of bats</b></p> <p>None.</p> |   |
|                       |                      |                                                                 |  |

|                                       |         |                                                                                                                                                                                                                                                                                                                                                                                |                                                                                      |
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| Window/doors frames and lintels       | Timber  | <p><b>Condition/description</b></p> <p>Tight fitting. No gaps present.</p> <p><b>Suitability/access/evidence of bats</b></p> <p>None.</p>                                                                                                                                                                                                                                      |   |
| Internal voids<br><br>(Main dwelling) | Trusses | <p><b>Condition/description</b></p> <p>Internal space measures approx. 10m long, 7m wide, floor to ridge height approx. 3m.</p> <p>Temperature: 17.4°C<br/>Humidity: 46%<br/>Light ingress: None</p> <p>Internal void consists of modern timber trusses with no exposed ridge beam that is lined with roofing felt. There are no gaps in the roofing felt, and no suitable</p> |  |

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|  |  | <p>roosting features within the timber structure. No access points were identified within the void.</p> <p>The loft is not regularly disturbed but undergoes the usual amount of disturbance for a residential building.</p> <p><b>Suitability/access/evidence of bats</b></p> <p>No access points were noted during the survey and the void itself contained no suitable roosting features.</p> <p>No bats or evidence of bats (droppings and wing fragments) were found.</p> |  |
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| Garage | Trusses | <p><b>Condition/description</b></p> <p>Internal space measures approx. 6m long, 5m wide, floor to ridge height approx. 4m.</p> <p>Temperature: 16.4°C<br/>Humidity: 48%<br/>Light ingress: None</p> <p>As above, the internal void consists of modern timber trusses with no exposed ridge beam that is lined with roofing felt. There are no gaps in the roofing felt, and no suitable roosting features within the timber structure. No access points were identified within the void.</p> <p>The building is regularly disturbed and used as storage.</p> <p><b>Suitability/access/evidence of bats</b></p> <p>No access points were noted during the survey and the void itself contained no suitable roosting features.</p> |  |
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|                                                                                                                                                                                                                                                                                                                                  |  | No bats or evidence of bats (droppings and wing fragments) were found.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
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| B2 Building description                                                                                                                                                                                                                                                                                                          |  | Photographs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
| <p><i>Summary</i></p> <p>B2 is a timber shed located adjacent the western elevation. This timber shed, is well sealed, with no areas of roosting habitat available for crevice dwellers. The internal area has no void, therefore no habitat value for void dwelling bats.</p> <p>B2 is <b>negligible</b> for roosting bats.</p> |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |
| <p><i>Foreseen Impacts</i></p>                                                                                                                                                                                                                                                                                                   |  | <p><b>Roosting habitat [Buildings]</b></p> <p>Bats are very unlikely to be roosting within this building and as such, there are not anticipated to be any impacts on bats in this location as a result of the proposed development.</p> <p><b>Foraging and commuting habitat</b></p> <p>The proposed development will result in the loss of small areas of building and hardstanding but given their lack of value, this is likely to be inconsequential for bats.</p> <p><b>Artificial lighting</b></p> <p>The proposed development may lead to an increase in the amount of current lighting of surrounding habitats or the retained building without mitigation. This may disturb commuting bats.</p> |  |

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| <i>Recommendations</i>            | <p><b>Roosting habitat [Buildings]</b></p> <p>In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.</p> <p><b>Foraging and commuting habitat</b></p> <p>No further surveys are required.</p> <p><b>Artificial lighting</b></p> <p>A low impact lighting strategy will be adopted for the site during post-development which outlines the areas of the site that will be retained as dark corridors. Parameters can be found on the Bat Conservation Trust website: <a href="https://www.bats.org.uk/our-work/buildings-planning-and-development/lighting-2">https://www.bats.org.uk/our-work/buildings-planning-and-development/lighting-2</a></p> |
| <b>Birds</b>                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <i>Summary of Survey Findings</i> | <p><b>Buildings</b></p> <p>No evidence of nesting birds was identified on or within B1 or B2, however B1 is considered suitable for nesting for species such as swallows, along the soffits of the main roof.</p> <p><b>Trees and vegetation</b></p> <p>No suitable habitat present on site for nesting birds. However, the trees adjacent to the south provide suitable nesting habitat for common and widespread species.</p> <p><b>Barn owls</b></p> <p>The site does not appear to provide any suitable nesting sites for barn owls.</p> <p><b>Overwintering birds</b></p>                                                                                                                                                                                       |

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                   | Due to the small size of the site and the extent and type of the habitats recorded, the site not considered suitable to support a significant assemblage of protected and/or notable birds.                                                                                                                                                                                                                                   |
| <i>Foreseen Impacts</i>           | <p><b>Buildings/trees</b><br/>No impacts are anticipated on nesting birds as a result of the proposed development.</p> <p><b>Barn owls</b><br/>None foreseen.</p> <p><b>Overwintering birds</b><br/>None foreseen.</p>                                                                                                                                                                                                        |
| <i>Recommendations</i>            | <p><b>Buildings/trees</b><br/>Precautions should be taken with machinery and noise levels when working close to any retained nests so as not to disturb any nearby nesting birds during construction works. At least a 3-5m buffer should be created between any machinery and active nests until the young have fledged.</p> <p><b>Barn owls</b><br/>None required.</p> <p><b>Overwintering birds</b><br/>None required.</p> |
| <b>Reptiles</b>                   |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <i>Summary of Survey Findings</i> | <p><b>EPSL data</b><br/>A review of the MAGIC database returned no granted EPSL records for protected reptiles within 2km of the site.</p> <p><b>Habitat suitability</b></p>                                                                                                                                                                                                                                                  |

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                   | <p>The dominant habitat onsite (modified grassland) is considered unsuitable for reptiles due to the species content (common and widespread species with minimal diversity) and associated management regime, where at the time of the survey the grassland was recorded as being a relatively short sward. Given the management regime employed on the modified grassland, as well as the species composition, it is considered unlikely that this faunal group would be present within this habitat.</p> <p><b>Wider landscape</b></p> <p>The adjacent sections of the Ewenny River and woodland are of elevated ecological value within the wider landscape and The habitats to the south provide suitable foraging and refuge habitat for reptiles, however it remains unlikely that they will be present onsite, due to the physical barrier (timber fence with mesh dug into the ground), homogenous structure of the vegetation and lack of refuges.</p> |
| <i>Foreseen Impacts</i>           | No impacts are anticipated on reptiles as a result of the proposed development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <i>Recommendations</i>            | None required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Amphibians</b>                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <i>Summary of Survey Findings</i> | <p><b>EPSL and survey data</b></p> <p>A review of the MAGIC database returned 7 granted EPSL records for great crested newts within 2km of the site. Further, the MAGIC database did return evidence indicating the presence of great crested newts resulting from historic pond surveys undertaken in 2018. These records are located ~0.5km east and ~1.3km west.</p> <p>Great crested newts exist in metapopulations and are known to utilise ponds and their connecting terrestrial habitat during their life cycle; great crested newts are typically found within terrestrial habitats up to 500m from breeding ponds (Langton <i>et al.</i> 2001). However, the great crested newt metapopulation known to be present 500m east is not suitably connected to the site, as there are physical barriers of suboptimal habitats (roads, curbs, buildings) present between them.</p>                                                                         |

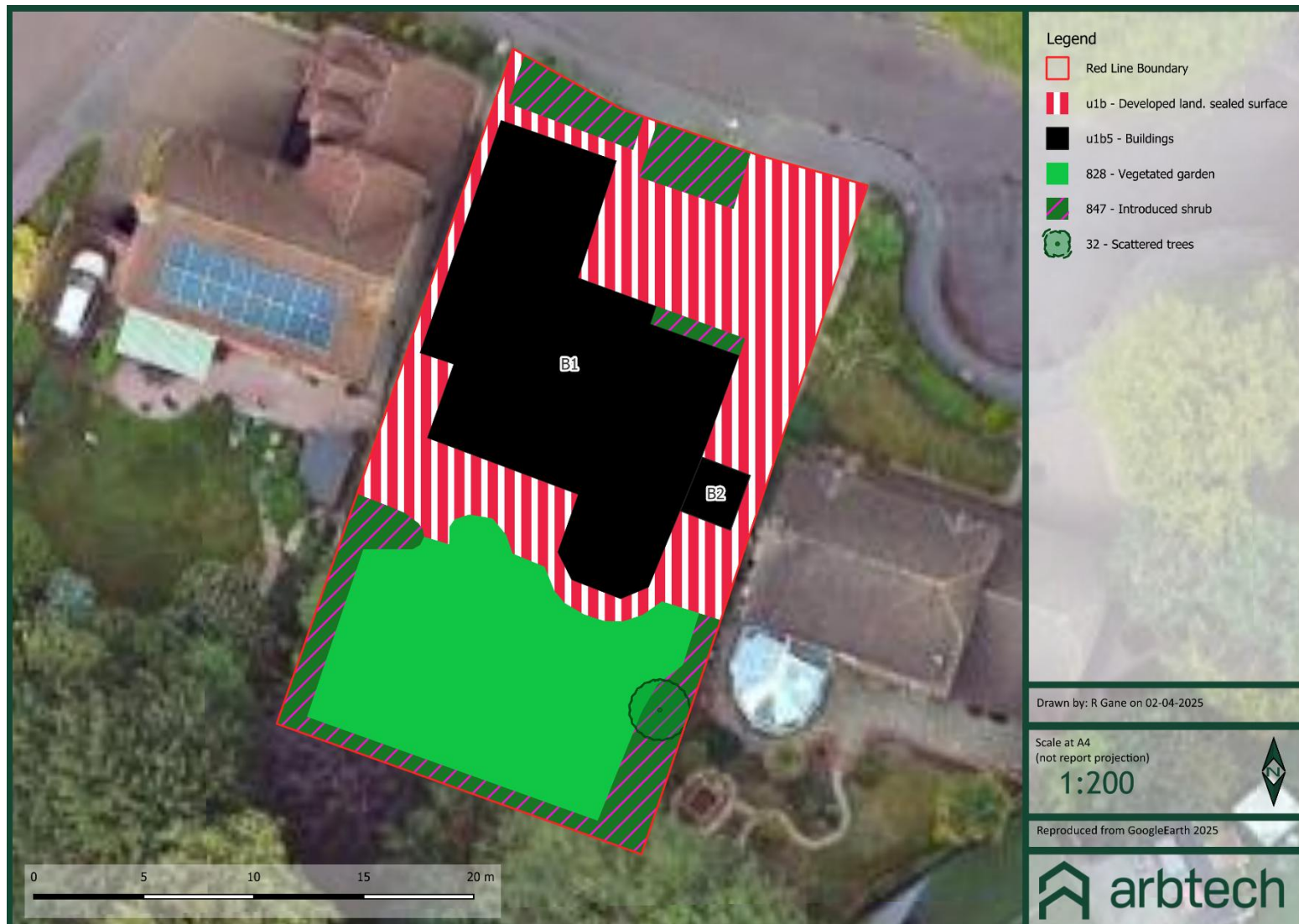
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|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p><b>Aquatic habitat suitability (including ponds within 500m)</b></p> <p>Great crested newts (GCN) exist in metapopulations and are known to utilise ponds and their connecting terrestrial habitat during their life cycle; great crested newts are typically found within terrestrial habitats up to 500m from breeding ponds (Langton et al. 2001).</p> <p>There are no ponds on the site, but a review of aerial imagery (MAGIC and OS Maps) indicates the presence of 4 ponds within 500m:</p> <p>Pond 1 (P1): Located adjacent the site to the south. ~1700m<sup>2</sup> in size</p> <p>Pond 2 (P2): Located ~130m southeast. ~1100m<sup>2</sup></p> <p>Pond 3 (P3) Located 200m southeast. ~160m<sup>2</sup></p> <p>Pond 4 (P3): Located ~450m east. ~1200m<sup>2</sup></p> <p>P1 is a large shallow-sloping pond that is surrounded by mature trees and scrub. The water is clear and there is substantial presence of emergent vegetation. Species include, (D) yellow flag iris (<i>Iris pseudacorus</i>), and (O) bulrush (<i>Typha spp.</i> The majority of the bank is gently sloping with some areas that are steep, all of which are vegetated with scrub and mature trees. The pond is directly adjacent the site, however a timber fence that has been reinforced with mesh at the bottom (to prevent rodents) is present.</p> <p>P2, P3 and P4 are not considered to be suitably connected to the site due to their located past significant barriers, such as roads, buildings and regularly managed grassland</p> <p>A pond map showing approximate pond locations is provided in <b>Appendix 4.</b></p> |
|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                         | HSI Index of P1                                                                                                                                                                                                                                                                                                                                       | HSI Index Parameter | HSI Score        |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------|
|                         | 1 – Location                                                                                                                                                                                                                                                                                                                                          | Zone A              | 1.0              |
|                         | 2 – Pond Area                                                                                                                                                                                                                                                                                                                                         | ~1700m <sup>2</sup> | 0.85             |
|                         | 3 – Pond Drying                                                                                                                                                                                                                                                                                                                                       | Never dries         | 0.9              |
|                         | 4 – Water Quality                                                                                                                                                                                                                                                                                                                                     | Good                | 1.0              |
|                         | 5 – Shade                                                                                                                                                                                                                                                                                                                                             | 0-60%               | 1.0              |
|                         | 6 – Waterfowl                                                                                                                                                                                                                                                                                                                                         | Absent              | 1.0              |
|                         | 7 – Fish                                                                                                                                                                                                                                                                                                                                              | Absent              | 1.0              |
|                         | 8 – waterbody count in wider landscape within 500m with suitable terrestrial connectivity                                                                                                                                                                                                                                                             | 1                   | 1.0              |
|                         | 9 – Terrestrial Habitat                                                                                                                                                                                                                                                                                                                               | Good                | 1.0              |
|                         | 10 – Macrophytes                                                                                                                                                                                                                                                                                                                                      | 60-70%              | 1.0              |
|                         | <b>TOTAL</b>                                                                                                                                                                                                                                                                                                                                          | -                   | <b>0.97</b>      |
|                         | <b>CATEGORY</b>                                                                                                                                                                                                                                                                                                                                       | -                   | <b>Excellent</b> |
|                         | <p><b>Terrestrial habitat suitability</b></p> <p>The site provides limited suitable terrestrial habitat for amphibians given the lack of optimal habitat (i.e. scrub, rank grassland). The areas of hard standing and amenity grass offer sub-optimal habitat for terrestrial amphibians. it is unlikely that amphibians will migrate on to site.</p> |                     |                  |
| <i>Foreseen Impacts</i> | <p>When georeferencing the proposed development plans over scaled mapping of the site, it is noted that the development area is only likely to result in the loss or significant disturbance of hardstanding and building. Therefore, No impacts are anticipated on GCN as a result of the proposed development.</p>                                  |                     |                  |

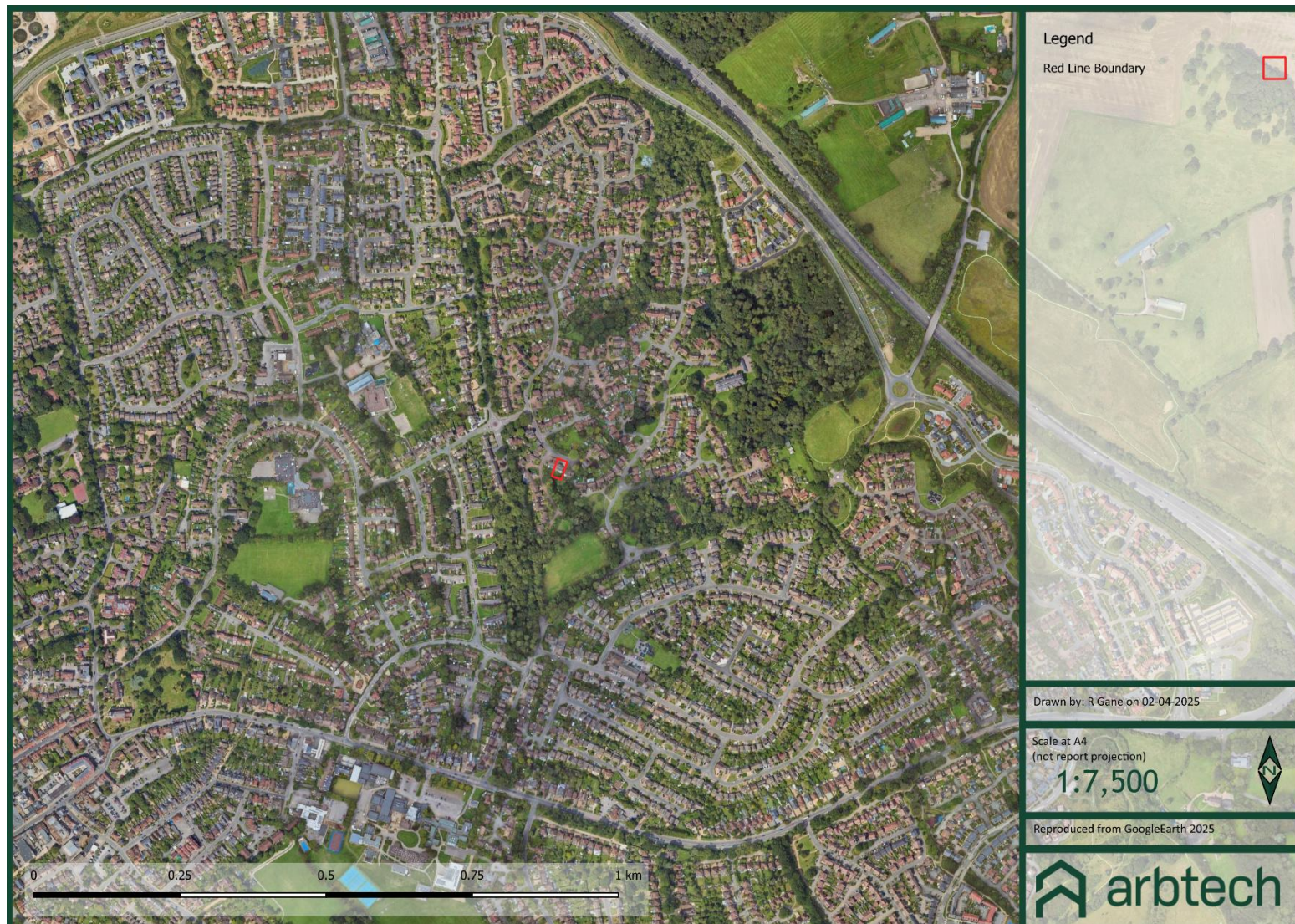
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Recommendations</i>            | None required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Badger</b>                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <i>Summary of Survey Findings</i> | No badger setts were noted on site or within a 30m radius of the site. The site is considered unsuitable for badgers given the lack of suitable sett excavation areas/ground. Further, there is limited suitable badger foraging habitat on site given the lack of fruiting trees/scrub. The site is also surrounded by urban development (i.e. roads and buildings), which is sub-optimal habitat therefore reducing the likelihood of badgers being present within the surrounding area of the site. |
| <i>Foreseen Impacts</i>           | No impacts are anticipated on badgers as a result of the proposed development.                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <i>Recommendations</i>            | None required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Riparian animals</b>           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <i>Summary of Survey Findings</i> | A review of the MAGIC database returned no granted EPSL records for otters or water voles within 2km of the site. There are no water courses on or connected to the site. There are also no riparian habitats present on site or within an influencing distance.                                                                                                                                                                                                                                       |
| <i>Foreseen Impacts</i>           | No impacts are anticipated on riparian animals as a result of the proposed development.                                                                                                                                                                                                                                                                                                                                                                                                                |
| <i>Recommendations</i>            | None required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Hazel dormouse</b>             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <i>Summary of Survey Findings</i> | <p><b>EPSL data</b></p> <p>A review of the MAGIC database returned no granted EPSL records for hazel dormice within 2km of the site.</p> <p><b>Habitat suitability</b></p> <p>Dormice typically utilise a three-dimensional habitat structure as to commute between feeding and breeding sites whilst avoiding predation. As such habitats on site are considered unsuitable for hazel dormice and therefore the likelihood of this species being present on site is considered acceptably low.</p>    |

|                                   |                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Foreseen Impacts</i>           | No impacts are anticipated on hazel dormice as a result of the proposed development.                                                                                                                                                                                                                                                                                                          |
| <i>Recommendations</i>            | None foreseen.                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Other e.g. hedgehog</b>        |                                                                                                                                                                                                                                                                                                                                                                                               |
| <i>Summary of Survey Findings</i> | The amenity grassland and introduced shrub onsite provides limited foraging and commuting opportunities for hedgehogs, with woodland habitat nearby.                                                                                                                                                                                                                                          |
| <i>Foreseen Impacts</i>           | No impacts are anticipated on hedgehogs as a result of the proposed development.                                                                                                                                                                                                                                                                                                              |
| <i>Recommendations</i>            | <p>None required.</p> <p><b>Suggested biodiversity enhancements</b></p> <p>The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for hedgehogs:</p> <ul style="list-style-type: none"> <li>• Installation of gaps under boundary fencing to enable hedgehogs to move freely through the site.</li> </ul> |

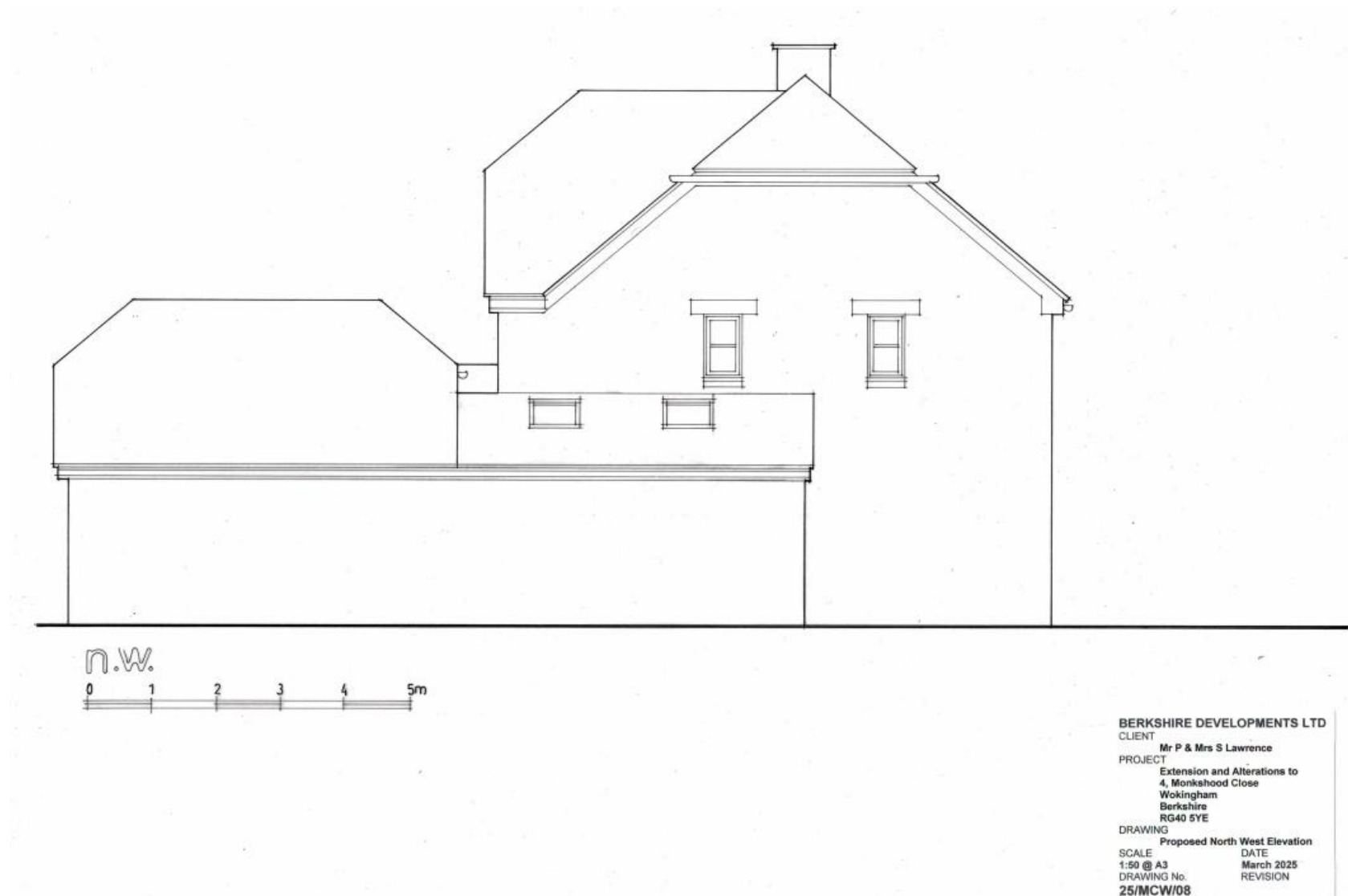
Appendix 1: Survey/Habitat map



**Appendix 2: Location map**



**Appendix 3: Proposed plan**





Appendix 4: Pond map



Appendix 5: Habitat Photos

| Modified grassland                                                                  |                                                      |
|-------------------------------------------------------------------------------------|------------------------------------------------------|
| Photograph                                                                          | Description                                          |
|  | Figure 1: Amenity grass lawn on site (to rear of B1) |

| Introduced shrubs                                                                 |                                                                          |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Photograph                                                                        | Description                                                              |
|  | <p>Figure 2: Introduced shrubs on site (along northern side of site)</p> |
| Scattered trees                                                                   |                                                                          |
| Photograph                                                                        | Description                                                              |



Figure 3: Magnolia on the eastern boundary.

**Sealed surface**

**Photograph**



Figure 4: Patio to the rear of B1

| Pond adjacent to the south                                                         |                                                  |
|------------------------------------------------------------------------------------|--------------------------------------------------|
| Photograph                                                                         | Description                                      |
|  | Figure 5: P1 from the southern end, facing north |

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| Final           | 1.0   | Rebecca Gane BSc (Hons) Graduate Ecologist          | 04/04/2025 |